

# Overview and factors associated with pregnancies and abortions occurring in sex workers in Benin

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## Research article

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# Abstract

**INTRODUCTION** The behavioural and structural factors related to sex work, place female sex workers (FSWs) at high risk of maternal mortality and morbidity (MMM), with a large portion due to unintended pregnancies and abortions. In the African context where MMM is high amongst the general population, understanding the frequency and determinants of pregnancy and abortion among FSWs is important in order to meet their sexual and reproductive health needs. **METHODS** Data from two Beninese cross-sectional surveys (2013 - 2016) were merged. We first performed exploratory univariate analyses to identify factors associated with pregnancy and abortion ( $p < 0.20$ ) using Generalized Estimating Equations with Poisson regression and robust variance. Multivariate analyses first included all the variables identified in the univariate models and backward selection ( $p \leq 0.05$ ) was used to generate the final models. **RESULTS** Mean age was 31 years ( $N=866$ ). The proportion of FSWs reporting at least one pregnancy during sex work was 16.4%, of whom 42.3% had more than one. Most pregnancies ended up with an abortion (67.6%). FSWs who lived with their boyfriend (adjusted proportion ratio (aPR) = 1.74, 95%CI: [1.1, 2.8]) and did not use condoms consistently with them (aPR=1.83, 95%CI: [1.1, 3.0]) had more pregnancies. **CONCLUSION** One FSW out of five had at least one pregnancy during her sex work practice. Most of those pregnancies, regardless of their origin, ended up with an abortion. Improving access to various forms of contraception and safe abortion is the key to reducing unwanted pregnancies and consequently, MMM among FSWs in Benin.

## Introduction

In Sub-Saharan Africa, the maternal mortality ratio (MMR) is the highest in the world with approximately 550 maternal deaths per 100 000 live births as of 2015 [1]. Most of these deaths are avoidable as their main drivers are the lack of access to appropriate quality care [2] and unsafe abortions (13%) [3]. Responding to women's reproductive health needs, such as education on sexual and reproductive health and rights, access to and information on family planning and improved access to quality prenatal, emergency obstetrics, safe abortion and post abortion care, could reduce this burden [4-6]. However, behavioural and structural factors related to sex work, such as violence, sex with multiple partners, inconsistent condom use, stigma and discrimination, increase the risk of poor sexual and reproductive health (SRH) and adverse pregnancy outcomes in the population of female sex workers (FSWs) [5]. Since little is known about pregnancies occurring in FSWs SRH services are limited for this specific group [7].

Because of their high level of sexual activity, FSWs are at high risk of pregnancy. The 12-month overall cumulative incidence is quite high, as observed in Cambodia (20%) and Madagascar (23%) [8, 9]. Unfortunately, these studies did not specify whether FSWs desired those pregnancies or not. Yet this distinction is important since unwanted pregnancies are highly associated with numerous negative consequences such as social stigmas, financial burden and unsafe abortion [10].

Worldwide, 40% of all pregnancies are unintended [11] and approximately 50% of these unwanted pregnancies end in abortion [12]. Unsafe abortion highly contributes to MMR in developing countries [13].

In some studies, the proportion of unwanted pregnancies occurring during sex work was around 90% [10, 14] and lifetime abortion rate varies between 35% and 65% [15-18] among FSWs from low and middle-income countries. With the current available information, it is difficult to know if such abortions mostly occur prior to or after entry into sex work.

Despite the high burden of ill reproductive health, FSWs have a high rate of unmet SRH needs [19]. A first step to identify those needs is to better quantify this problem and identify the FSWs most at risk. Consequently, this study aimed at gathering knowledge related to pregnancy among FSWs in Benin with the following four objectives: 1) Estimate the frequency of pregnancy occurrence during the practice of sex work; 2) Classify pregnancy outcomes; 3) Assess factors associated with the occurrence of at least one pregnancy during sex work and; 4) Assess factors associated with the occurrence of at least one abortion during the same period among FSWs who became pregnant.

## Methods

We used data from two cross-sectional surveys conducted in 2013 and 2016 that recruited, respectively, 450 and 504 FSWs from numerous sex work sites across the country. The primary objective of these surveys was to describe the overall context of sex work in 11 cities or towns located in seven departments of Benin (Figure 1) and its evolution over this three-year period, when we implemented an human immunodeficiency viruses (HIV) prevention and reproductive health intervention program aimed at FSWs.

### *Data collection*

Before the two data collection periods, a local team mapped the different sex work sites in Benin. This mapping allowed an exhaustive census of all important prostitution sites in the country and enumerated the FSW population (details given elsewhere) [20].

Then, we used cluster sampling to select a representative sample of sex work sites in the intervention localities. In a second phase, trained and experienced investigators visited each selected site. All FSWs (defined as women aged  $\geq 18$  years and selling sex for money or goods at the time of the study) present at each site were enrolled after having provided informed consent. This process was done in 2013 and 2016 until the projected sample size of at least 450 FSWs was reached for each year. Following the recruitment period, investigators administered a quantitative reproductive health questionnaire during face-to-face interviews with each participant. The same questionnaire was used for both cross-sectional surveys.

### *Outcomes*

The two outcomes of interest in the present study were the occurrence of at least one pregnancy and that of at least one abortion since the moment each participant started engaging in sex work.

### *Independent variables*

We explored three types of independent variables during our model selection process: 1) Socio-demographic characteristics (age, region, country of origin, religion, education, marital status, having a boyfriend, cohabitation with a sexual partner, the numbers of dependent individuals and the number of biological children); 2) Sexual behaviours (age at sexual debut, age at first sex work experience, number of years involved in sex work, number of clients during the last working day, number of clients during the last seven days and money received for the last sexual relation); and 3) Information about the use of SRH prevention services and contraception methods (using at least once SRH prevention services during sex work practice, participating as peer educator in HIV and sexually transmitted infections (STI) preventions activities, being tested for HIV at least once during lifetime, currently using hormonal contraception, condom use with clients and boyfriends in the last seven days).

### **Database merging**

We evaluated the impact of merging databases from both surveys as means to enhance the statistical power of our analysis and identified participants that may have contributed information to both surveys, in order to exclude one of their contributions or to consider repeated measures in the data analysis. Because no nominal information was disclosed in both surveys, we used aggregate socio-demographic characteristics to identify potential participants contributing information in both surveys. We explored five different combinations of seven variables stable across time (i.e. month and year of birth, country of origin, religion, education level, age at sexual debut and age at first sex work experience).

### **Statistical analyses**

Following merger, we carried out descriptive statistics using proportions for discrete variables and means with standard deviations for continuous variables. We then compared the population characteristics between both cross-sectional surveys. Ultimately, we used univariate and multivariate Poisson regression models to identify factors associated with our two outcomes of interest. We estimated adjusted prevalence ratios (aPR) and their 95% confidence intervals (95%CI) with generalized estimating equations (GEE) using a robust variance estimator to decrease the potential impact of a correlation matrix incorrectly specified, and a clustering effect related to the FSWs recruited at the same prostitution site. We also adjusted all the models for survey year (2013 or 2016) to account for potential variations in behavioural characteristics between both surveys. We used a two-step model selection process to choose our independent variables. First, variables associated with the occurrence of at least one pregnancy with  $p$ -values  $< 0.2$  in the univariate analysis were automatically included in the multivariate model. Then, we removed the least associated variables until all  $p$ -values were  $\leq 0.05$ . Similar analyses were carried out for the occurrence of abortion among women reporting at least one pregnancy during their sex work practice. We performed all the analyses using SAS 9.4 (SAS Institute, Cary, NC, USA).

### **Ethical considerations**

To diminish the potential impact of sensitive questions, the interviewers were trained on ethical issues. Each participant provided written informed consent prior to the interview and no nominal information was

reported on the questionnaire. The study was approved by the ethics committee of the CHU de Québec – Université Laval (Québec, Canada) and by the National Health Research Ethics Committee in Benin.

## Results

### Database merger

We tested eight different sets of variables in each dataset to validate their specificity. Five of those sets found more than 10 duplicates in the same survey (Table 1). Between the three remaining options, we chose the most specific with the fewer variables (options 3 and 8). When we matched the two datasets with the chosen aggregate, we were unable to find any duplicate with option 3 and only two with option 8. Finally, to confirm our decision, we compared all the sites used to recruit FSWs. More than 85% of these sites differed between the two surveys, an observation that also strengthens our choice of merging the two databases together and our confidence in the rarity of duplicates between the two surveys.

### Missing data

Of the 954 participants, 88 (9%) had missing data. Eleven women had missing data for the outcomes of interest related to pregnancy (1%) and 77 (8%) for the independent variables. Participants having missing data for the independent variables were not significantly different with regards to the outcomes, compared to those without [at least one pregnancy, 19.3% vs 16.4% ( $p = 0.48$ , chi-square); at least one abortion among those who has at least one pregnancy during sex work, 58.8.% vs 67.6% ( $p = 0.47$ , chi-square)].

### Descriptive analyses

After excluding participants with missing data, our database contained 866 FSWs. Mean age was 31 years (standard deviation (SD) 8.8 years), with the largest proportion of women aged from 20 to 29 years (47.8%). Over half of the women worked in the greater Cotonou region (including the city of Cotonou in Littoral, Abomey-Calavi in Atlantique and Sèmè-Podji in Ouémé), the largest city and economic capital of Benin. Beninese represented 44.0% of the FSWs while Nigerians and Togolese represented, respectively, 26.7% and 18.7% of our sample. Most women had achieved primary (38.1%) or secondary (28.1%) education levels. Regarding marital status, 54.2% of FSWs were divorced or separated and half of them had a boyfriend (52.2%). Only 21.5% of the FSWs were childless and even less in 2016 (15.6% vs 27.8%) (Table 2).

Mean age at sexual debut was 17 years, whereas mean age when starting involvement in sex work was 25 years. Mean duration in sex work was 5.5 years. The mean number of clients in the last week was 17.5 and the last sexual transaction brought back an average of approximately eight US dollars (4 000 (*Francs des communautés financières africaines*) FCFA). FSWs surveyed in 2016 had been involved in sex work for a longer period ( $\geq 10$  years as sex workers, 27.5% vs 7.7% in 2013) and had fewer clients (Table 2).

The overall use of SRH services was higher in 2016 compared to 2013 and most participants had ever been tested for HIV (97.3% in 2016 vs 87.1% in 2013). In the combined data, the use of SRH services was less common (37.5%) as was the use of hormonal contraception (19.3%). Finally, consistent condom use was high with clients (91%) but not with boyfriends (24.5%, 65/265) (Table 2).

### *Pregnancies among female sex workers*

The proportion of women with at least one pregnancy since sex work initiation was 16.4% (142/866) using the merged dataset while it was 18.2% and 14.7%, for the 2013 and 2016 surveys, respectively ( $p = 0.17$ , chi-square). Of all the women who had at least one pregnancy occurring while being a sex worker, 42.3% (60/142) had more than one (mean 1.78, SD 1.2). In addition, most FSWs (87%) declared that the pregnancy originated from their boyfriends (vs 13% from the clients) (Table 3).

### *Pregnancy outcomes in female sex workers*

Of the 142 women who had at least one pregnancy since sex work initiation, 67.6 % (96/142) had at least one abortion and 44% (42/96) of the latter had more than one. This proportion was slightly lower in 2016 (62.1%) than in 2013 (72.4%), but the difference was not statistically significant ( $p=0.19$ , chi-square). The proportion of all 253 pregnancies that occurred in 142 women that ended in abortion was similar among women reporting getting pregnant from a boyfriend (65.6%) and those reporting being pregnant from a client (66.7%) (Table 3).

### *Factors associated with the occurrence of at least one pregnancy during sex work*

Table 4 shows the univariate and multivariate analyses of the factors associated with the occurrence of pregnancies during sex work. In multivariate analysis, the risk of having a pregnancy during the practice of sex work decreased as women got older ( $p < 0.0001$ ). We observed the opposite trend with the number of years women were involved in sex work ( $p < 0.0001$ ). Having a boyfriend was associated with a 70 % increase in the occurrence of at least one pregnancy whereas consistent condom uses with boyfriends had a protective effect (aPR=0.55, 95%CI: 0.3-0.9). Women from Togo and Nigeria were 30% more likely to have had at least a pregnancy compared to FSWs from Benin (aPR=1.28, 95%CI: 0.9-1.8). Finally, women who had tested for HIV during their lifetime reported being pregnant at least once during sex work more often (aPR=3.74, 95%CI: 1.5-9.2) than the few women who had not (Table 4).

### *Factors associated with at least one abortion among women who became pregnant during sex work*

Out of the 142 women who reported at least one pregnancy during sex work, 140 specified their pregnancies outcomes and the multivariate analysis showed that there was an overall significant association between age and the likelihood of having had at least one abortion, but no significant trend (Table 5). FSWs from Togo were more likely to have had at least one abortion compared to those from Benin (aPR=1.31, 95%CI: 1.0-1.7) and there was an overall significant difference in the likelihood of having had at least an abortion according to the country of origin ( $p=0.0047$ ). Increasing numbers of children decreased the number of abortion ( $p$ -trend=0.0049). However, the association was in the

opposite direction for the number of dependents, but with no significant trend. Among FSWs who had to take care financially of one other person, there was a 1.3-fold increase in the likelihood of resorting to abortion (aPR=1.32, 95%CI: 1.0-1.8) compared to women with no dependent. A similar association was observed for the fact of having five dependents (aPR=1.28, 95%CI: 1.0-1.6), but no significant associations were found for women having two, three or four dependents. Consistent condom use, both with clients (aPR=0.71, 95%CI: 0.5-1.0) and boyfriends (aPR=0.61 95%CI: 0.4-0.9), was protective against abortion (Table 5).

## Discussion

Globally, FSWs are at high risk of unplanned pregnancy and its adverse consequences, including death; Benin is no exception. Our study is one of the first in West Africa that attempts to quantify this risk in order to develop programs that meet FSWs' SRH needs.

The proportion of women with at least one pregnancy during sex work practice is relatively high in Benin and most of those pregnancies ended in abortion. Young immigrant women, those practicing sex work for longer periods (more than two years) and those having a boyfriend are the most at risk for pregnancy. The ones who always use condoms with their boyfriends have significantly less pregnancies and abortion, but this represents only a minority of women. The older the women get and the more biological children they have the less they resort to abortion to end their pregnancy.

Our findings indicate that a minimum of 16% of the FSWs had at least one pregnancy during their sex work practice and almost half of the latter (42%) had more than one, with an average of 1.8 pregnancies per women. This proportion of women who got pregnant during sex work is similar to the one observed in other studies (around 20%) [8, 9, 21-23]. Most of the women were of reproductive age between 20 and 29 years old and most of their pregnancies came from their boyfriends. Clearly less stigma is associated with having a pregnancy from a boyfriend than from a client. Furthermore, condom use with boyfriends was low as reported elsewhere [24]. The non-use of condoms with boyfriends helps the FSWs to make a distinction between their personal and professional life [25]. In addition, the non-use of condoms is usually at the boyfriend's request and is a way to prove the fidelity of the FSWs [26]. All these perceptions make us believe that a part (even though small) of those pregnancies might be intended, especially when considering that motherhood is highly valued in African countries and is a way for FSWs to gain respect in their community [27]. However, this is worrisome since FSWs' boyfriends are at high risk of HIV and STI [28] and considering the context those children will be raised.

FSWs who had been tested for HIV at least once during their lifetime reported at least one pregnancy during sex work almost 4 times more often than the ones who never did. We observed this disparity even though almost all FSWs had been tested for HIV (92%). The first hypothesis for explaining this observation is that pregnant women are systematically tested for HIV when seeking prenatal care [29]. The second hypothesis is that women who have unprotected sex consider themselves more likely to contract HIV and this risk perception explains why they had been tested [20]. In Benin, FSWs are overly

represented in the HIV epidemic [30] with an HIV prevalence of nearly 20% in the FSW population [31] and a non optimal adherence to antiretroviral therapy (ART) [32]. This explains why the majority of the services available to prevent HIV among FSWs in Sub-Saharan Africa focuses on the promotion and the delivery of condoms instead of focussing on SRH in general [33]. HIV testing services could however be used as a good opportunity to discuss and integrate broader SRH needs, including contraception [19].

FSWs aged < 20 years were particularly at risk of getting pregnant. Indeed, younger FSWs may be less experienced with condom negotiation and have more unprotected sex with their non-paying partners [34]. Those two behaviors put them at higher risk for pregnancy. Research in Cambodia found that younger FSWs were at higher risk for pregnancy and that their ability to negotiate condom is critical to prevent pregnancy [8]. Since condom negotiation is often difficult, especially for younger sex workers, and condom breakage is common [35, 36], the use of dual contraception is the best method to prevent pregnancy [9]. FSWs in Sub-Saharan Africa underuse hormonal and dual contraception [18, 37-39]. We observed the same situation in our sample where only 48% of the women ever used SRH services during sex work and only 20% were currently using hormonal contraception. In Benin's general population the use of modern contraception is low. The government promotes family planning as part of its national health plan [40] since the best way to prevent maternal and newborn death is the provision of modern contraception combined with adequate care for pregnant women [41]. Many barriers are associated with the use of modern contraception. One of the most frequent barriers is the fear of side effects associated with modern contraception and the opposition toward it [42]. FSWs face numerous stigmas when they need to access health care [43]. They need to have a special attention to access to modern contraception and family planning services. Those services need to focus, among others, on young women who are likely to spend more years as sex workers.

With the information available, we did not know in what kind of settings the FSWs accessed abortion. We do know that FSWs have limited economic options, low education and many dependents [46] and those factors place them at higher risk of unsafe abortion [47-49].

The high abortion rate observed here might be explained by the fact that the vast majority of FSWs already had their children prior to their involvement in sex work and the number of children is a determining factor for abortion [50, 51]. As we could observe in our sample, FSWs who had more dependents had more chance of having an abortion. Financial vulnerabilities often lead women to become sex workers [52] and having a child increases that financial burden [10]. However, FSWs who have more children have less abortions. This surprising result can be explained by the type of study we used. A cross-sectional survey does not enable us to determine the temporality of the events, meaning that maybe the non-use of abortion caused the FSWs to have more children and that fact can explain why the number of children appeared as a protective factor.

Older age is usually a factor associated with abortion [16, 51, 53, 54]. In our analysis, we could not observe a clear trend as we did for the association between age and pregnancy occurrence. We could only use the subsample of 140 women who reported at least one pregnancy during sex work to identify

the factors associated with abortion. This relatively small sample size could explain the difficulty to identify clear trends. In our population, as in many countries and populations, abortion was associated with age, marital status and economic factors [41].

### Strengths and limitations

We decided to merge the two databases to enhance our statistical power. To do so, we made sure that the data collection followed the identical process and the same tools. We verified that the outcomes of interest had almost equivalent prevalence. However, a study carried out in Cotonou (data not published), showed that FSWs stayed on average one year in that city. Knowing that, we could deduce that after three years 12.5% of the FSWs would still be in each location. The possibility that we could not identify potential FSWs who would have answered our survey in 2013 and 2016 could affect our estimates. Indeed, without changing the number of observations, the presence of duplicate cases would reduce the effective sample size and the precision of the estimates [55]. To reduce this risk, we compared the two samples to identify possible duplicates and found only two, thus suggesting that at worst, this would concern only a few women and would thus have minimal impact on the validity of our analyses.

In addition, we certainly underestimated the frequency of our outcomes since pregnancy and abortion are sensitive topics. There is a high probability that some women did not disclose some pregnancies or abortions. Consequently, the frequency of pregnancies and abortions that we observed are likely to be underestimated.

Because we used a cross-sectional design, we cannot assess the temporality of the factors associated with pregnancy and abortion. Moreover, it is not possible to establish a causal link between these factors versus pregnancy and abortion and we do not know if the pregnancies were wanted or not. In the future, a longitudinal study could address those limits.

On the positive side, the sample is representative of FSWs from large cities (Cotonou, Porto Novo) and much smaller towns in Benin. Usually the studies assessing pregnancy are only from urban settings [53]. The scale of the survey allowed a good representativeness of the FSW population. Furthermore, this is the first study to assess pregnancy and abortion over the sex work practice period. Most studies exploring these issues cover a specific time period or the entire women's lifetime [53]. Lastly, the large sample size gave us the opportunity to consider several potential factors associated with the occurrence of pregnancies during sex work.

## **Conclusion**

To conclude, one FSW out of five had at least one pregnancy during her sex work practice. Most of those pregnancies, regardless of their origin, ended up with an abortion. Our results suggest that prevention services need to continue to promote condom use and that dual protection is the key to reduce unwanted pregnancies in the FSW population. By doing so, maternal mortality could decrease in this vulnerable population. With the available data, this study was not able to specify whether those pregnancies were

wanted or not and in which conditions women underwent abortion. More research is needed to find answers to these questions.

## List Of Abbreviations

aPR: Adjusted proportion ratio

ART: Antiretroviral therapy

FCFA : Franc des communautés financières africaines

FSWs: Females sex workers

GEE: Generalized estimating equations

HIV: Human immunodeficiency viruses

MMM: Maternal mortality and morbidity

MMR: Maternal mortality ratio

SD: Standard deviation

SRH: Sexual and reproductive health

STI: Sexually transmitted infections

## Declarations

### Ethics approval and consent to participate

Each participant provided written informed consent prior to the interview and no nominal information was reported on the questionnaire. The study was approved by the ethics committee of the CHU de Québec – Université Laval (Québec, Canada) and by the National Health Research Ethics Committee in Benin.

### Consent for publication

Not applicable

### Availability of data and materials

The datasets used and analysed during the current study are available from the corresponding author on reasonable request.

### Competing interests

The authors declare that they have no competing interests.

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### Authors' contributions

GPS analyzed and interpreted the data regarding the three objectives of this article. MA supervised closely all the steps leading to the production of this article. All authors read and approved the final manuscript

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## Tables

**Table 1 - Duplicate observations identification test**

Option	Variable set	Number of variables	Number of identical women found in a same survey						Number of identical women found between surveys
			2013 survey			2016 survey			
			2 women	3 women	≥4 women	2 women	3 women	≥4 women	
1	Country of origin, religion, education, age at first sex and age at sex work debut	5	20	2	1	13	2	0	
2	Year of birth, month of birth, country of origin, religion and education	5	16	1	0	16	4	10	
<b>3*</b>	Year of birth, month of birth, country of origin, religion, education and age at sex work debut	6	2	0	0	2	3	0	0
4	Year of birth, month of birth, country of origin, religion, education and age at first sex	6	4	0	0	21	1	0	
5	Year of birth, month of birth, country of origin, religion, education, age at first sex and age at sex work debut	7	1	0	0	1	0	0	
6	Year of birth, country of origin, religion, education and age at sex work debut (3- month of birth)	5	15	1	0	16	3	0	
7	Year of birth, country of origin, religion, education and age at first sex (4 - month of birth)	5	17	1	1	30	3	1	
<b>8*</b>	Year of birth, country of origin, religion, education, age at first sex and age at sex work debut (5 - month of birth)	6	3	0	0	5	0	0	2

\* Option prioritized, less variables than option 5 and the less false duplicate.

**Table 2 - Sociodemographic characteristics of the studied population (n = 866)**

Sociodemographic variables	2013 (n = 418)	2016 (n = 448)	Combined population (n = 866)		Chi-square
	Frequency (%)		Mean (sd)	Frequency (%)	
			31.1 (8.8)		
<b>Age</b>					
	< 20	25 (6.0)	14 (3.1)	39 (4.5)	
	20 - 24	94 (22.5)	87 (19.4)	181 (20.9)	
	25 - 29	113 (27.0)	120 (26.8)	233 (26.9)	
	30 - 34	81 (19.4)	96 (21.4)	132 (15.2)	
	35 - 39	36 (8.6)	35 (7.8)	71 (8.2)	
	≥ 40	69 (16.5)	96 (21.4)	165 (19.1)	0.1426
<b>Region</b>					
	Greater Cotonou area	261 (62.5)	303 (67.6)	564 (65.1)	
	Regions	157 (37.6)	145 (32.4)	302 (34.9)	0.1090
<b>Country of origin</b>					
	Benin	199 (47.6)	182 (40.6)	381 (44.0)	
	Togo	70 (16.8)	92 (20.6)	162 (18.7)	
	Nigeria	106 (25.4)	125 (27.9)	231 (26.7)	
	Ghana	33 (7.9)	38 (8.5)	71 (8.2)	
	Other	10 (2.4)	11 (2.5)	21 (2.4)	0.3223
<b>Religion</b>					
	Catholic	171 (40.9)	194 (43.3)	365 (42.2)	
	Other Christian	159 (38.0)	162 (36.2)	321 (37.1)	
	Muslim and other	38 (9.1)	50 (11.2)	88 (10.2)	
	Traditional	19 (4.6)	23 (5.1)	42 (4.9)	
	No religion	31 (7.4)	19 (4.2)	58 (5.8)	0.2540
<b>Education</b>					
	Unschooling	77 (18.4)	87 (19.4)	164 (18.9)	
	Primary	160 (38.3)	170 (38.0)	330 (38.1)	
	Secondary 1	112 (26.8)	136 (30.4)	248 (28.6)	
	Secondary 2 and more	69 (16.5)	55 (12.3)	124 (14.3)	0.2861
<b>Marital status</b>					
	Married	16 (3.8)	19 (4.2)	35 (4.0)	
	Divorced or separated	207 (49.5)	262 (58.5)	469 (54.2)	
	Widowed	32 (7.7)	44 (9.8)	76 (8.8)	
	Single	163 (39.0)	123 (27.5)	286 (33.0)	0.0043*
<b>Has a boyfriend</b>					
	Yes	239 (57.2)	213 (47.5)	452 (52.2)	
	No	179 (42.8)	235 (52.5)	414 (47.8)	0.0046*
<b>Cohabitation with a sexual partner</b>					
	Yes	35 (8.4)	65 (14.5)	100 (21.6)	
	No	383 (91.6)	383 (85.5)	766 (88.5)	0.0048*
<b>Number of dependents</b>					
	None	133 (31.8)	64 (14.3)	197 (22.8)	
	1 person	55 (13.2)	53 (11.8)	108 (12.5)	
	2 persons	59 (14.1)	80 (17.9)	139 (16.1)	
	3 persons	58 (13.9)	75 (16.7)	133 (15.4)	
	4 persons	38 (9.1)	54 (12.1)	92 (10.6)	
	≥ 5 persons	75 (17.9)	122 (27.2)	197 (22.8)	<0.0001*

<b>Number of biological children</b>				1.8 (1.5)	
	None	116 (27.8)	70 (15.6)		186 (21.5)
	1 child	123 (29.4)	126 (28.1)		249 (28.9)
	2 children	83 (19.9)	117 (26.1)		200 (23.1)
	3 children	51 (12.2)	61 (13.6)		112 (12.9)
	≥ 4 children	45 (10.8)	74 (16.5)		119 (13.7) <0.0001*
<b>Sex work characteristics</b>					
<b>Age at first sex</b>				17.3 (2.5)	
	≤ 15	92 (22.0)	115 (25.7)		207 (23.9)
	16 - 17	139 (33.3)	120 (26.8)		259 (29.9)
	18 - 19	127 (30.4)	138 (30.8)		265 (30.6)
	≥ 20	60 (14.4)	75 (16.7)		135 (15.6) 0.1689
<b>Sex work debut (age)</b>				25.6 (7.8)	
	≤ 17	29 (6.9)	69 (15.4)		98 (11.3)
	18 - 21	98 (23.4)	111 (24.8)		209 (24.1)
	22 - 25	99 (23.7)	108 (24.1)		207 (23.9)
	26 - 29	69 (16.5)	49 (10.9)		118 (13.6)
	≥ 30	123 (29.4)	111 (24.8)		234 (27.0) 0.0004*
<b>Duration in sex work (years)</b>				5.5 (5.8)	
	≤ 1	105 (25.1)	86 (19.2)		191 (22.1)
	2	83 (19.9)	60 (13.4)		143 (16.5)
	3 - 4	94 (22.5)	82 (18.3)		176 (20.3)
	5 - 9	104 (24.9)	97 (21.7)		201 (23.2)
	≥ 10	32 (7.7)	123 (27.5)		155 (17.9) <0.0001*
<b>Number of clients (last day of work)</b>				3.4 (3.2)	
	≤ 1	124 (29.7)	102 (22.8)		226 (26.1)
	2 to 3	127 (30.4)	205 (45.8)		332 (38.3)
	4 to 5	100 (23.9)	89 (19.9)		189 (21.8)
	≥ 5	67 (16.0)	52 (11.6)		119 (13.7) <0.0001*
<b>Number of clients (last 7 days)</b>				17.5 (16.3)	
	≤ 5	103 (24.6)	100 (22.3)		203 (23.4)
	6 - 10	55 (13.2)	114 (25.5)		169 (19.5)
	11 - 15	62 (14.8)	81 (18.1)		143 (16.5)
	16 - 20	77 (18.4)	73 (16.3)		150 (17.3)
	≥ 20	121 (29.0)	80 (17.9)		201 (23.2) <0.0001*
<b>Money received for last sexual relation**</b>				3985.9 (6256.4)	
	≤ 1500	137 (32.8)	120 (26.8)		257 (29.7)
	1501 - 2000	83 (19.9)	90 (20.1)		173 (20.0)
	2001 - 5000	137 (32.8)	157 (35.0)		294 (34.0)
	> 5000	61 (14.6)	81 (18.1)		142 (16.4) 0.2078
<b>Prevention services</b>					
<b>Use at least one SRH prevention services during sex work</b>				-	
	Yes	110 (26.3)	215 (48.0)		325 (37.5)
	No	308 (73.7)	233 (52.0)		541 (62.5) <0.0001*
<b>Participates as peer worker in HIV and STI prevention activities</b>				-	
	Yes	110 (26.3)	215 (48.0)		325 (37.5)

	No	308 (73.7)	233 (52.0)		541 (62.5)	<0.0001*
<b>Tested for HIV at least once during lifetime</b>						
	Yes	364 (87.1)	436 (97.3)	-	800 (92.4)	
	No	54 (12.9)	12 (2.7)		66 (7.6)	0.0217*
<b>Contraception</b>						
<b>Currently using hormonal contraception</b>						
	Yes	75 (17.9)	92 (20.5)		167 (19.3)	
	No	343 (82.1)	356 (79.5)		699 (80.7)	0.3338
<b>Condom use (the last 7 days)</b>						
<b>With clients</b>						
	Not always	41 (9.8)	35 (7.8)		76 (8.8)	
	Always	377 (90.1)	413 (92.2)		790 (91.2)	0.2995
<b>With non-paying partners</b>						
	Never/Not always	107 (25.6)	93 (20.8)		200 (23.1)	
	Always	42 (10.1)	23 (5.1)		65 (7.5)	
	No sexual relation	269 (64.4)	332 (74.1)		601 (69.4)	0.0023*

There is a significant difference at 0.05 between the frequencies of one or more categories  
 FA (1 US dollars = 500 FCFA)

**Table 3 - Overview of sex workers' pregnancies during sex work practice**

		2013 (n = 418)	2016 (n = 448)	p- value*	Combined population (n = 866)		
		Frequency (%)			Mean (sd)	Frequency (%)	
: least one pregnancy	Yes	76 (18.2)	66 (14.7)	0.1707		142 (16.4)	
	No	342 (81.8)	382 (85.3)			724 (83.6)	
ore than one egnancy	Yes	35 (46.1)	25 (37.9)			60 (42.3)	
	No	41 (53.9)	41 (62.1)			82 (57.8)	
: least one abortion	Yes	55 (73.3)	41 (63.1)	0.1931		96 (68.6)	
	No	20 (26.7)	24 (36.9)			44 (31.4)	
ore than one abortion	Yes	32 (58.2)	22 (53.7)			54 (56.3)	
	No	23 (41.8)	19 (46.3)			42 (43.8)	
umber of pregnancies	1	41 (54.0)	41 (62.1)			82 (57.8)	
	2	19 (25.0)	12 (18.2)			31 (21.8)	
	3	9 (11.8)	6 (9.1)			15 (10.6)	
	4	6 (7.9)	4 (6.1)			10 (7.2)	
	5	-	1 (1.5)			1 (0.7)	
	6	-	2 (3.0)			2 (1.4)	
	7	1 (1.3)				1 (0.7)	
			<b>Number of pregnancies</b>				
regnancy outcomes						<b>Boyfriend</b>	
						<b>Clients</b>	
	Live birth				60 (23.7)	54 (24.8)	6 (18.2)
	Stillbirth				7 (2.8)	5 (2.3)	2 (6.1)
Miscarriage				19 (7.5)	16 (7.3)	3 (9.1)	
Abortion				1.63 (1.1)	165 (65.2)	143 (65.6)	22 (66.7)
total number of egnancies**				1.78 (1.2)	253 (100.0)**	220 (87.0)**	33 (13.0)

According to chi-square

Two FSWs were pregnant during data collection and thus had missing values for pregnancy outcome

**Table 4 - Univariate and multivariate analyses for the risk of having at least one pregnancy during sex work (n = 866)**

		Proportion pregnant*	PR	95% CI	P- value**	aPR	95% CI	P- value***	P- trend****
<b>Sociodemographic characteristics</b>									
<b>Age</b>									
	< 20	6/39 (15.9)	1			1			
	20 - 24	42/181 (23.2)	1.51	0.8 -		0.91	0.4 -		
	25 - 29		1.48	2.9			1.7		
	30 - 34	53/233 (22.8)	0.73	0.7 -		0.71	0.3 -		
	35 - 39		0.55	3.3			1.5		
	≥ 40	20/177 (11.3)	0.59	0.3 -		0.32	0.2 -		
				1.8			0.7		
		6/71 (8.5)		0.2 -		0.26	0.1 -		
				1.5			0.7		
		15/165 (9.1)		0.2 -	<0.0001	0.29	0.1 -	<0.0001	<0.0001
				1.4			0.7		
<b>Region</b>									
	Greater Cotonou area	105/564 (18.6)	1			-	-		
	Regions	37/302 (12.3)	0.66	0.4 -	0.1294	-	-	-	-
				1.1					
<b>Country of origin</b>									
	Benin	58/381 (15.2)	1			1			
	Ghana	7/71 (9.9)	0.65	0.4 -		0.83	0.4 -		
				1.3			1.7		
	Togo	33/162 (20.4)	1.34	0.9 -		1.28	0.9 -		
	Nigeria		1.08	1.9			1.8		
		38/231 (16.5)		0.7 -		1.29	0.9 -		
				1.6			1.8		
	Other	6/21 (28.6)	1.88	1.1 -	0.0751	2.42	1.3 -	0.0343	-
				3.3			4.5		
<b>Religion</b>									
	Catholic	58/365 (15.9)	1			-	-		
	Other Christian	53/321 (16.5)	1.04	0.8 -		-	-		
				1.4					
	Muslim and others	18/88 (20.5)	1.29	0.8 -		-	-		
				2.0					
	Traditional	8/42 (19.1)	1.20	0.7 -		-	-		
				2.1					
	No religion	5/50 (10.0)	0.63	0.2 -	0.7101	-	-	-	-
				1.7					
<b>Education</b>									
	Unschoolled	21/164 (12.8)	1			-	-		
	Primary	58/330 (17.6)	1.37	0.9 -		-	-		
				2.3					
	Secondary 1	37/248 (14.9)	1.17	0.8 -		-	-		
				1.8					
	Secondary 2 and more	26/124 (21.0)	1.64	1.0 -	0.2037	-	-	-	-
				2.8					
<b>Marital status</b>									

Married	11/35 (31.4)	1			-	-		
Divorced or separated	74/469 (15.8)	0.50	0.3-0.9		-	-		
Widowed	6/76 (7.9)	0.25	0.1-0.6		-	-		
Single	51/286 (17.8)	0.57	0.3-1.0		<b>0.0017</b>	-	-	-
<b>Has a boyfriend</b>								
No	37/414 (8.9)	1				1		
Yes	105/452 (23.2)	2.60	1.8-3.7		<b>&lt; 0.0001</b>	1.74	1.1-2.8	<b>0.0246</b>
<b>Cohabitation with a sexual partner</b>								
No	111/766 (14.5)	1				-	-	
Yes	31/100 (31.0)	2.14	1.4-3.2		<b>0.0003</b>	-	-	-
<b>Number of dependents</b>								
None	29/197 (14.7)	1				-	-	
1 person	19/108 (17.6)	1.20	0.5-2.6			-	-	
2 persons	30/139 (21.6)	1.47	1.0-2.3			-	-	
3 persons	21/133 (15.8)	1.07	0.6-1.9			-	-	
4 persons	20/92 (21.7)	1.48	0.8-2.7			-	-	
≥ 5 persons	23/197 (11.7)	0.79	0.5-1.4		0.3164	-	-	-
<b>Number of biological children</b>								
None	33/186 (17.7)	1				-	-	
1 child	53/249 (21.3)	1.20	0.8-1.9			-	-	
2 children	30/200 (15.0)	0.85	0.5-1.4			-	-	
3 children	13/112 (11.6)	0.65	0.3-1.3			-	-	
≥ 4 children	13/119 (10.9)	0.62	0.3-1.2		<b>0.0231</b>	-	-	-
<b>Sexual behaviors</b>								
<b>Age at first sex</b>								
≤ 15	50/207 (24.1)	1				-	-	
16 - 17	42/259 (16.2)	0.67	0.5-1.0			-	-	
18 - 19	35/265 (13.2)	0.55	0.4-0.8			-	-	
≥ 20	15/135 (11.1)	0.46	0.3-0.8		<b>0.0032</b>	-	-	-
<b>Sex work debut (age)</b>								
≤ 17	22/98 (22.45)	1				-	-	

18 - 21	47/209 (22.49)	1.00	0.6 - 1.6	-	-		
22 - 25	41/207 (19.81)	0.88	0.5 - 1.5	-	-		
26 - 29	17/118 (14.41)	0.64	0.4 - 1.1	-	-		
≥ 30	15/234 (6.41)	0.29	0.2 - 0.5	<b>&lt;0.0001</b>	-	-	-

#### Duration in sex work (years)

≤ 1	17/191 (8.90)	1		1			
2	21/143 (14.69)	1.65	0.9 - 3.1	1.45	0.8 - 2.6		
3 - 4	35/176 (19.89)	2.23	1.5 - 3.4	2.22	1.4 - 3.5		
5 - 9	44/201 (21.89)	2.46	1.7 - 3.6	2.94	1.9 - 4.6		
≥ 10	25/155 (16.13)	1.81	0.9 - 3.6	<b>&lt;0.0001</b>	4.01	2.0 - 7.9	<b>&lt;0.0001</b>

#### Number of clients (last day of work)

≤ 1	43/226 (19.47)	1		-	-		
2 to 3	53/332 (15.96)	0.82	0.6 - 1.2	-	-		
4 to 5	26/189 (13.76)	0.71	0.5 - 1.1	-	-		
≥ 5	19/119 (15.97)	0.82	0.5 - 1.3	0.4605	-	-	-

#### Number of clients (last seven days)

≤ 5	44/203 (21.67)	1		-	-		
6 - 10	21/169 (12.43)	0.57	0.4 - 0.9	-	-		
11 - 15	19/143 (13.29)	0.61	0.4 - 1.0	-	-		
16 - 20	26/150 (17.33)	0.80	0.5 - 1.2	-	-	-	
≥ 20	32/201 (15.92)	0.73	0.5 - 1.1	<b>0.1272</b>	-	-	-

#### Money received for last sexual relation °

≤ 1500	25/257 (9.73)	1		-	-		
1501 - 2000	30/173 (17.34)	1.78	1.0 - 3.2	-	-		
2001 - 5000	56/294 (19.05)	1.96	1.2 - 3.1	-	-		
> 5000	31/142 (21.83)	2.24	1.3 - 4.0	<b>0.0210</b>	-	-	-

#### Prevention services

#### Use at least one SRH prevention services during sex work

No	82/541 (15.16)	1	0.9 -	-	-		
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				1.6				
	Yes	60/325 (18.46)	1.22		0.2024	-	-	-
<b>Participate as peer worker in HIV and STI prevention activities</b>								
	No	129/775 (16.65)	1	0.5 - 1.6		-	-	
	Yes	13/91 (14.29)	0.86		0.6156	-	-	-
<b>HIV testing at least once during lifetime</b>								
	No	4/66 (6.06)	1			1		
	Yes	138/800 (17.25)	2.85	1.3 - 6.2	<b>0.0090</b>	3.74	1.5 - 9.2	<b>0.0040</b>
<b>Contraception</b>								
<b>Currently using hormonal contraception</b>								
	No	105/699 (15.02)	1			-	-	
	Yes	37/167 (22.16)	1.47	1.0 - 2.2	<b>0.0540</b>	-	-	-
<b>Condom use (last seven days)</b>								
<b>With clients</b>								
	Not always	11/73 (15.07)	1			-	-	
	Always	131/790 (16.59)	1.10	0.6 - 2.0	0.7595	-	-	-
<b>With non-paying partners</b>								
	Never/ Not always	61/200 (30.50)	1			1		
	Always	11/65 (16.92)	0.55	0.3 - 1.0		0.55	0.3 - 0.9	
	No sexual relation	70/601 (21.83)	0.38	0.3 - 0.5	<b>&lt;0.0001</b>	0.60	0.4 - 0.9	<b>0.0069</b>

\*\* p-value in the univariate analysis. P-values written in bold are <0.20

\*\*\* p-value in the multivariate analysis, adjusted for the year of the two different surveys; p-values written in bold are ≤0.05

\*\*\*\* p-value, test for linear trend in the multivariate analysis, adjusted for the year of the two different surveys; p-values written in bold are ≤0.05

° In FCFA (1 US dollars = 500 FCFA)

**Table 5 - Univariate and multivariate analyses for the risk of having at least one abortion for women who had at least one pregnancy during sex work (n = 140)**

		Prevalence	PR	95% CI	P-value*	aPR	95% CI	P-value**	P-trend***
<b>Sociodemographic characteristics</b>									
<b>Age</b>									
	< 20	3/6 (50.0)	1			1			
	20 - 24	29/41 (70.7)	1.41	0.6 - 3.2		1.30	0.7 - 2.5		
	25 - 29								
	30 - 34	31/53 (58.5)	1.17	0.5 - 2.7		1.14	0.6 - 2.3		
	35 - 39								
	≥ 40	17/19 (89.5)	1.79	0.8 - 4.1		1.85	0.9 - 3.9		
		3/6 (50.0)	1.00	0.4 - 2.8		1.02	0.3 - 3.2		
		13/15 (86.7)	1.73	0.8 - 4.0	<b>0.0154</b>	1.83	0.8 - 4.0	<b>0.0252</b>	<b>0.7898</b>
<b>Region</b>									
	Greater Cotonou area	73/104 (70.2)	1			-	-		
	Regions	23/36 (63.9)	0.91	0.7 - 1.2	0.4479	-	-		
<b>Country of origin</b>									
	Benin	37/58 (63.8)	1			1			
	Ghana	5/7 (71.4)	1.12	0.8 - 1.6		0.97	0.7 - 1.4		
	Togo	25/33 (75.8)	1.19	1.0 - 1.4		1.31	1.0 - 1.7		
	Nigeria	27/36 (75.0)	1.18	1.0 - 1.4		1.08	0.6 - 1.4		
	Other	2/6 (33.3)	0.52	0.2 - 1.6	<b>0.1188</b>	0.49	0.2 - 1.3	<b>0.0047</b>	
<b>Religion</b>									
	Catholic	41/57 (71.9)	1			-	-		
	Other Christian	35/53 (66.0)	0.92	0.7 - 1.1		-	-		
	Muslim and others	11/18 (61.1)	0.85	0.6 - 1.3		-	-		
	Traditional	7/8 (87.5)	1.22	1.0 - 1.7		-	-		
	No religion	2/4 (50.0)	0.70	0.2 - 1.9	0.4061	-	-	-	-
<b>Education</b>									
	Unschooling	12/21 (57.1)	1			-	-		
	Primary	38/56 (67.9)	1.19	0.8 - 1.9		-	-		
	Secondary 1	27/37 (73.0)	1.28	0.8 - 2.0		-	-		
	Secondary 2 and more	19/26 (73.1)	1.28	0.8 - 2.0	0.6514	-	-	-	-
<b>Marital status</b>									
	Married	5/10 (50.5)	1			-	-		
	Divorced or separated	53/73 (72.6)	1.45	0.7 - 3.0		-	-		
	Widowed	3/6 (50.0)	1.00	0.3 - 3.2		-	-		
	Single	35/51 (68.6)	1.37	0.6 - 3.1	0.4783	-	-	-	-
<b>Has a boyfriend</b>									
	No	22/36 (61.1)	1			-	-		
	Yes	74/104 (71.2)	1.16	0.9 - 1.6	0.3403	-	-	-	-
<b>Cohabitation with a sexual partner</b>									

	No	78/110 (71.0)	1			-	-		
	Yes	18/30 (60.0)	0.85	0.6 - 1.3	0.4018	-	-	-	-
<b>Number of dependents</b>									
	None	20/28 (71.4)	1			1			
	1 person	13/19 (68.4)	0.96	0.7 - 1.3		1.32	1.0 - 1.8		
	2 persons	19/29 (65.5)	0.92	0.6 - 1.3		1.08	0.8 - 1.5		
	3 persons	12/21 (57.1)	0.80	0.6 - 1.0		1.13	0.9 - 1.5		
	4 persons	12/20 (60.0)	0.84	0.6 - 1.2		1.08	0.6 - 1.3		
	≥ 5 persons	20/23 (87.0)	1.22	1.0 - 1.5	<b>0.0101</b>	1.28	1.0 - 1.6	<b>0.0084</b>	0.2776
<b>Number of biological children</b>									
	None	30/33 (90.9)	1			1			
	1 child	29/52 (55.8)	0.61	0.5 - 0.8		0.61	0.5 - 0.8		
	2 children	20/30 (66.7)	0.73	0.6 - 0.9		0.68	0.5 - 0.9		
	3 children	8/13 (61.5)	0.68	0.5 - 1.0		0.56	0.4 - 0.8		
	≥ 4 children	9/12 (75.0)	0.83	0.6 - 1.1	<b>0.0002</b>	0.73	0.5 - 1.0	<b>0.0008</b>	<b>0.0049</b>
<b>Sexual behaviors</b>									
<b>Age at first sex</b>									
	≤ 15	33/50 (66.0)	1			-	-		
	16 - 17	27/42 (64.3)	0.97	0.8 - 1.2		-	-		
	18 - 19	23/33 (69.7)	1.01	0.8 - 1.4		-	-		
	≥ 20	13/15 (86.7)	1.31	1.0 - 1.6	<b>0.0674</b>	-	-	-	-
<b>Sex work debut (age)</b>									
	≤ 17	12/22 (54.6)	1			-	-		
	18 - 21	33/47 (70.2)	1.28	0.9 - 1.9		-	-		
	22 - 25	27/40 (67.5)	1.24	0.9 - 1.7		-	-		
	26 - 29	12/17 (70.6)	1.29	0.8 - 2.0		-	-		
	≥ 30	12/14 (85.7)	1.57	1.1 - 2.3	<b>0.1571</b>	-	-	-	-
<b>Involvement in sex work (years)</b>									
	≤ 1	9/15 (60.0)	1			-	-		
	2	15/21 (71.4)	1.19	0.8 - 1.8		-	-		
	3 - 4	26/35 (74.3)	1.24	0.8 - 2.8		-	-		
	5 - 9	32/44 (72.7)	1.21	0.8 - 1.8		-	-		
	≥ 10	14/25 (56.0)	0.93	0.6 - 1.5	0.6518	-	-	-	-
<b>Number of clients (last day of work)</b>									
	≤ 1	29/44 (65.9)	1			-	-		
	2 to 3	33/52 (63.5)	0.96	0.7 - 1.3		-	-		
	4 to 5	18/25 (72.0)	1.05	0.7 - 1.5		-	-		
	> 5	16/19 (84.2)	1.28	1.0 - 1.6	<b>0.1533</b>	-	-	-	-

Number of clients (last seven days)									
	≤ 5	24/44 (54.6)	1			-	-		
	6 - 10	18/21 (85.7)	1.57	1.1 - 2.2		-	-		
	11 - 15	14/19 (73.7)	1.35	1.0 - 1.8		-	-		
	16 - 20	17/25 (68.0)	1.24	0.9 - 1.8		-	-		
	≥ 20	23/31 (74.2)	1.36	1.0 - 1.8	<b>0.0727</b>	-	-	-	-
Money received for last sexual relation °									
	≤ 1500	20/24 (83.3)	1			-	-		
	1501 - 2000	18/29 (62.1)	0.75	0.6 - 1.0		-	-		
	2001 - 5000	35/56 (62.5)	0.75	0.5 - 1.0		-	-		
	> 5000	23/31 (74.2)	0.96	0.7 - 1.2	<b>0.1118</b>	-	-	-	-
Prevention services									
Use at least one SRH prevention services during sex work									
	No	52/80 (65.0)	1			-	-		
	Yes	44/60 (73.3)	1.13	0.9 - 1.4	0.2320	-	-	-	-
Participate as peer worker in HIV and STI prevention activities									
	No	88/127 (69.3)	1			-	-		
	Yes	8/13 (61.4)	0.89	0.6 - 1.4	0.5878	-	-	-	-
HIV screening at least once during lifetime									
	No	2/4 (50.0)	1			-	-		
	Yes	94/136 (69.2)	1.38	0.7 - 2.9	0.3823	-	-	-	-
Contraception									
Currently using hormonal contraception									
	No	71/103 (68.9)	1			-	-		
	Yes	25/37 (67.6)	0.98	0.8 - 1.2	0.8676	-	-	-	-
Condom use (last seven days)									
With clients									
	Not always	11/11 (100.0)	1			1			
	Always	85/129 (65.9)	0.66	0.6 - 0.8	<b>&lt;0.0001</b>	0.71	0.5 - 1.0	<b>0.0415</b>	-
With non-paying partners									
	Never/ Not always	49/60 (81.7)	1			1			
	Always	5/11 (45.5)	0.56	0.3 - 0.9		0.61	0.4 - 0.9		
	No sexual relation	47/69 (60.9)	0.75	0.6 - 0.9	<b>0.0003</b>	0.86	0.7 - 1.1	<b>0.0021</b>	-

\*\* p-value in the univariate analysis. P-values written in bold are <0.20

\*\*\* p-value in the multivariate analysis, adjusted for the year of the two different surveys; p-values written in bold are ≤0.05

\*\*\*\* p-value, test for linear trend in the multivariate analysis, adjusted for the year of the two different surveys; p-values written in bold are ≤0.05

° In FCFA (1 US dollars = 500)

## Figures



Figure 1

Map of Benin: Blue-colored areas represent the departments and cities of the project.