

Supplemental Digital Content 1. Description of measures considered as independent variables in analysis

Sociodemographic	Education*	Any secondary school or higher compared to primary school or less
	Age	Due to collinearity with years engaged in sex work, age was excluded from the model.
	Dependents*	Number of people supported by income [none, 1–4, 5+]
Sex work	Years involved in sex work*	Years involved in sex in exchange for money or goods [1 year or less, 2-4 years, 5+ years]
	Number of clients	Average number of clients seen in a usual day working [1-4, 5+]
	Monthly income*	Total monthly income for formal and informal work [<50,000, 50 000-150 000, 150 000-250 000, 250 000+]
	Location of having sex with clients	If have sex with clients in private home, brothel, bar/club, hotel/guesthouse, private party, beach, car or other locations [yes, no]; Having sex with clients at a brothel was considered in the regression model
Behavioural	Consistent condom use (CCU)	Report always using condom during vaginal and anal sex [yes, no, NA] with a given partner type (clients, regular non-paying partner, casual non-paying partners)
	Protected sex with regular non-paying partners	Meeting one of the following criteria based on past 12 months: CCU with all regular non-paying partners; only one regular partner in the past year who is known HIV-negative; only one regular partner in the past year who is known HIV-positive and on ART; no vaginal or anal sex with a regular partner [yes, no]
	Anal sex	Ever had anal sex [yes, no]
	Alcohol consumption	Frequency of consuming six or more alcoholic drinks [weekly or more, less than weekly]
	Illicit drug use	Ever using an illicit non-injectable or injectable drug [yes, no]
Health	Contraception	Currently use any hormonal contraception, including oral contraceptive pill, implant, injection or intrauterine device [yes, no]
	STI symptoms*	Self-report experiencing STI symptoms in the previous 12 months [yes, no]
	Depressive symptoms	Based on score from Patient Health Questionnaire (PHQ9) scale, categorised as none (<5), mild (≥5 & <10) and moderate or severe (≥10) depressive symptoms in the previous two weeks. This was then dichotomised for analysis [None, mild to severe]
Service engagement	Access to HIV prevention information	Received HIV prevention information [yes, no] if responded yes to any of three questions regarding receipt of information in the previous six months: on

Characterising socio-structural determinants of new HIV diagnoses among female sex workers in Cameroon

		how to prevent HIV when having sex, get tested for HIV, and treat and care for yourself if you have HIV
	HIV knowledge	Correct knowledge that anal sex poses the highest sexual transmission risk [yes, no]
	HIV testing history	Previous HIV test in the past year [yes, no], verified by self-reported date of last test (month, year). Time since last test was calculated as difference between date of survey and date of last test was calculated, assuming the test occurred mid-month, and where month was unknown, assuming test occurred mid-year (15 June)
	Ever taken ARVs to prevent HIV	Report ever using antiretrovirals (ARVs) for prevention purposes (i.e. off-label and unsupervised pre-exposure prophylaxis) [yes, no]
Socio-Structural	Stigma	Report ever experiencing stigma in various contexts (social, health care, legal, and education/employment) in relation to sex work, including whether it was perceived (e.g. felt excluded or rejected by family or friends), anticipated (e.g. ever been afraid of or avoided seeking health services), or enacted (e.g. ever heard negative comments from healthcare workers; ever blackmailed) [yes, no]
	Self-stigma	Disagreeing or strongly disagreeing to any of three statements relating to one's own acceptability and confidence that having sex in exchange for money/goods is satisfactory, acceptable, that sex work does not make one inferior, and that one does not care if people know they are involved in sex work [yes, no]
	Physical violence	Experienced physical harassment or been hurt in the past 6 months due to involvement in sex work [yes, no]
	Forced sex	Forced to have sex against will in past 6 months by any perpetrator, including oral, anal, vaginal and manual sex or penetration with an object [yes, no]
	History of incarceration	Ever been arrested or incarcerated [never, arrested only, ever incarcerated]
	Social capital*	Based on a scale scored from 0 to 36, classified as low (0–16), medium (17–26) and high (27–36) social cohesion; these were dichotomised for inclusion in the model [low, medium/high].
* Included <i>a priori</i> in Poisson regression model		