GFEMS KENYA RESEARCH PROGRAM

COMMERCIAL SEXUAL EXPLOITATION OF CHILDREN (CSEC) - KNOWLEDGE, ATTITUDES, AND PRACTICES (KAP) BASELINE REPORT

November 2021

Prepared under Contract No.: 8744.02.01

Revised November 23rd, 2021

Submitted to:

Global Fund to End Modern Slavery (GFEMS)

Submitted by:

Erika Keaveney
Xiran Liu
Kareem Kysia

Contractor:

NORC at the University of Chicago
1155 East 60th Street, 2nd Floor
Chicago, IL 60637

Attention: Kareem Kysia
Tel: 301-634-9470; E-mail: Kysia-Kareem@norc.org

CONTENTS

TABLE OF TABLES

TABLE OF FIGURES

ACRONYMS

BAF	Building A Future
CBO	Community Based Organization
CITI	Collaborative Institutional Training Initiative
CPIMS	Child Protection Management Information System
CRC	Child Rights Club
CSEC	Commercial Sexual Exploitation of Children
DiD	Difference in Differences
DQA	Data Quality Assurance
DQR	Data Quality Review
EA	Enumeration Area
FBO	Faith Based Organization
GFEMS	Global Fund to End Modern Slavery
ICC	Intra-Cluster Correlation
IPTW	Inverse Probability of Treatment Weighting
IRB	Institutional Review Board
KAP	Knowledge, Attitudes, and Practices
KNBS	Kenya National Bureau of Statistics
MDES	Minimum Detectable Effect Size
NACOSTI	National Commission for Science, Technology and Innovation
NIH	National Institutes of Health
NPL	National Poverty Line
NORC	National Opinion Research Center
ODK	Open Data Kit
OLS	Ordinary Least Squares
PPI	Poverty Probability Index
QCO	Quality Control Officer
TdH-NL	Terre des Hommes Netherlands
TIP	Trafficking in Persons
UNICEF	United Nations Children's Fund

EXECUTIVE SUMMARY

BACKGROUND AND STUDY DESCRIPTION

As a part of its partnership with the U.S. Department of State's Office to Monitor and Combat Trafficking in Persons (TIP Office), the Global Fund to End Modern Slavery (GFEMS) is launching a new project to combat commercial sexual exploitation of children (CSEC) in Kwale and Kilifi counties of Kenya. Implemented by Terre des Hommes Netherlands in partnership with Kesho Kenya, the "Building A Future" (BAF) project focuses on implementing community-based prevention methods, formal education for young survivors, skills training and apprenticeships for older survivors, and improving livelihoods for the most vulnerable families. Targeting known sex trafficking hotspots in coastal Kenya, the project works to address both the supply of vulnerable individuals and the enabling environments that allow CSEC to persist.

NORC at the University of Chicago was contracted by GFEMS to lead an independent impact evaluation to assess whether BAF's package of community interventions is leading to measurable change in community knowledge, attitudes, and practices (KAP) vis-à-vis CSEC in coastal Kenya. Specific evaluation questions include:

1. **Knowledge.** To what extent did BAF increase awareness of CSEC victim identification, reporting channels, and referral mechanisms among community leaders, schools, and households?
2. **Attitudes.** To what extent did BAF improve beliefs among households around positive social norms that discourage CSEC?
3. **Practices.** To what extent did BAF improve CSEC reporting, willingness to report/intervene, case monitoring, and use of response and referral pathways among community leaders and schools?

Baseline data collection for the evaluation was conducted between February 9 and May 3, 2021 and involved interviewing 2,057 community members, 181 community leaders, and 57 primary school head teachers in Kilifi and Kwale counties. Findings from baseline data collection are presented in this report, including data for each of the three categories of KAP and for the three classes of respondents. The primary purpose of reporting baseline KAP is to inform program design, adaptation, and iteration for GFEMS and its implementing partners. In addition, we examine the equivalence of treatment and comparison groups at baseline across a range of demographic and KAP measures to assess the internal validity of the impact evaluation research design.

KEY BASELINE FINDINGS

CSEC is widely viewed as a common problem in Kilifi and Kwale counties, but one that only affects "other" households. Approximately 90 percent of household respondents said CSEC is common in their county and believe most victims were born and raised in the community. Despite this, very few households acknowledge their own children as being at-risk: only four percent of households said their child(ren) may have been previously subject to CSEC, and just 22 percent felt their children were vulnerable to future victimization.

While communities are generally opposed to CSEC, victim-blaming is the norm. The majority of households oppose CSEC, support its criminalization, and advocate for programs and policies that help victims find better opportunities. Despite this, attitudes towards victims suggest widely held views that they bear responsibility for their involvement in the sex trade. Of note, 90 percent of respondents believe that CSEC victims are both behaving immorally and should be arrested for accepting sex for money. Likewise, one-third of respondents believe that minors in the sex trade are free to exit whenever they want and only two percent cited deception by a trafficker or pimp as a push factor that drives children into CSEC.

Relatedly, there is little sensitivity to or awareness of the negative psychosocial effects CSEC has on victims. While 94 percent of households believe that exchanging sex for money negatively impacts a minor's well-being, reported negative impacts mostly focused on reproductive health and disruptions to schooling. Respondents were more likely to report "fixation with money" as a negative impact than mental health issues.

Over 90 percent of households said they would be willing to report known CSEC cases, however their knowledge of reporting channels is limited, and mainly focused on local authorities and the police. Very few mentioned other channels such as the Department of Children Services, the Child Protection Committee, and Childline Kenya, a toll-free, 24-hour helpline established by the Department of Children Services to facilitate the reporting of child abuse. Notably, there is some evidence that households won't report known CSEC cases due to fear of retaliation by local authorities.

RECOMMENDATIONS

Sensitize families to CSEC risk factors and the importance of monitoring vulnerability among children in the household. Low knowledge of common physical, social, and behavioral risk factors combined with the widespread view that CSEC only affects other households suggests a strong need for sensitization on monitoring CSEC vulnerability at the household level. Program implementers should therefore seek opportunities to integrate direct advocacy with parents/guardians into their existing programming.

Help community members see CSEC victims/survivors as children needing care and protection rather than criminals. Data from the prevalence component of this study—including data on the age of entry into the sex trade and PTSD rates among victims/survivors—could be disseminated to the public alongside information on the negative psychosocial effects CSEC. Educating the public on the negative effects of CSEC may help community members and policymakers become more sensitized towards victims, and therefore more proactive agents of change.

Educate community members on CSEC reporting channels other than police and local authorities. Of particular note, only three percent of respondents knew of Childline Kenya (116), a toll-free, 24-hour helpline established by the Department of Children Services to facilitate the reporting of child abuse. Childline offers an anonymous reporting pathway which may make community members less fearful of retaliation, particularly from local authorities. At the same time, there is a need to build trust and trustworthiness of police and local institutions. In parallel, helping community members understand the laws and penalties associated with CSEC may encourage reporting and discourage the sexual exploitation of children.

1. INTRODUCTION

BACKGROUND AND CONTEXT

Kenya is a source, transit, and destination country for the commercial sexual exploitation of children (CSEC). Despite continued efforts on the part of the Kenyan government to eliminate CSEC and other forms of trafficking in persons (TIP), the country remains on the U.S. Department of State's Tier 2 list due to uneven prosecution of perpetrators and inadequate social protections for survivors.[1] Kenya criminalizes CSEC through the Counter Trafficking in Persons Act (2012)[2] and the Sexual Offenses Act (2005),[3] and the government adopted the National Plan of Action against Sexual Exploitation of Children in 2013.[4] However, identification and prosecution of offenders remains challenging due to under-resourced law enforcement.

A review of existing literature highlights some factors that cause children to be more vulnerable to CSEC, including the cyclical forces of demand and supply from various geographic hotspots. Additionally, recent studies find that while CSEC remains pervasive, it has been gradually shifting from more traditional venues, such as brothels and bars to private establishments and online. Child sex tourism is widespread along the Kenyan coastline in areas such as Mombasa, Malindi, and Kilifi. The supply chain of sex trafficking in Kenya is interlinked, with inland trafficking responding to high demand created by the child sex tourism industry on the coast.[5] Victims are trafficked by intermediaries such as recruitment agents and taxi drivers, or by people known to them including their own families.[6]

The number of CSEC victims in coastal Kenya is presently unknown. However it is widely acknowledged that CSEC is very common in the coastal areas, with the United Nations Children's Emergency Fund (UNICEF) reporting in 2006 that up to 30 percent of all 12-18 year-olds had been involved in the sex trade at some point.[7] These reports are corroborated by more recent data from Kilifi and Kwale, in which 90 percent of respondents said that CSEC is common in their county with nearly one-third knowing of actual CSEC cases that occurred in their sub-county in the past year.[8]

---

[1] 2020 Trafficking in Persons Report: Costa Rica. (2020). USDOS. Online.

[2] National Council for Law Reporting (2012). Counter Trafficking in Persons Act. Retrieved from https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/84999/115494/F-2071338712/KEN84999.pdf.

[3] National Council for Law Reporting (2009). The Sexual Offences Act No. 3 of 2006. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_127528.pdf.

[4] The National Council for Children's Services (2013). The National Plan of Action Against Sexual Exploitation of Children in Kenya. Retrieved from https://ssa.riselearningnetwork.org/wp-content/uploads/sites/5/2015/11/Copy-of-NPA-against-SEC-Kenya.pdf.

[5] Hope, Kempe. (2013). Sex Tourism in Kenya: an Analytical Review. Tourism Analysis. 18. 533-542; Kibicho, W. (2016). Sex tourism in Africa: Kenya's booming industry. Routledge.

[6] US Department of State (2012).TIP report: June 2012. Washington, DC.

[7] ECPAT (2007). Global monitoring report on the status of action against CSEC in Kenya.
[8] NORC at the University of Chicago (2021). GFEMS Kenya CSEC Prevalence Survey. Unpublished raw data.

PROJECT DESCRIPTION

As a part of its partnership with the U.S. Department of State's Office to Monitor and Combat Trafficking in Persons (TIP Office), the Global Fund to End Modern Slavery (GFEMS) is launching a new project to combat CSEC in Kwale and Kilifi counties of Kenya. The "Building A Future" (BAF) project focuses on implementing community-based prevention methods, formal education for young survivors, skills training and apprenticeships for older survivors, and improving livelihoods for the most vulnerable families. Targeting known sex trafficking hotspots in coastal Kenya, the project works to address both the supply of vulnerable individuals and the enabling environments that allow CSEC to persist. Implemented by Terre des Hommes Netherlands (TdH-NL) in partnership with Kesho Kenya, the BAF project includes the following four activity streams:

Schools and peers support younger victims and children at risk:

- Support younger (9-15 years) CSEC victims with school supplies, levies, fees, and uniforms to return to and remain in formal education.
- Train teachers/administrators in schools to monitor students and identify CSEC cases.
- Establish and/or train Child Rights Clubs (CRCs) for peer-to-peer support to empower children at risk and inform them about positive changes.

Communities have positive social norms and utilize CSEC referral mechanisms:

- Train community-based structure members on CSEC victim identification and anti-trafficking advocacy skills.
- Strengthen community-based structures to facilitate extensive grassroots engagement.

Income-generating activities for vulnerable families:

- Provide vulnerable families with financial and in-kind support for income-generating activities.

Employability of older CSEC victims:

- Develop public-private partnerships for on-the-job training and apprenticeship with private sector companies.
- Train older CSEC victims (16-18 years) and put them in contact with private sector partners for jobs and entrepreneurship.

STUDY PURPOSE AND OBJECTIVES

NORC at the University of Chicago was contracted by GFEMS to lead an independent evaluation to assess whether TdH-BAF's package of community interventions is leading to measurable change in community knowledge, attitudes, and practices (KAP) vis-à-vis CSEC in coastal Kenya. Specific evaluation questions include:

1. **Knowledge.** To what extent did TdH-BAF increase awareness of CSEC victim identification, reporting channels, and referral mechanisms among community leaders, schools, and households?

2. **Attitudes.** To what extent did TdH-BAF improve beliefs among households around positive social norms that discourage CSEC?

3. **Practices.** To what extent did TdH-BAF improve CSEC reporting, willingness to report/intervene, case monitoring, and use of response and referral pathways among community leaders and schools?

MEASUREMENT APPROACH

Answers to the evaluation questions were triangulated through a series of data collection activities in communities that are targeted by the BAF program as well as neighboring communities that serve as a comparison group. Data collection activities include Community Leader surveys, Head Teacher/school surveys, and two household surveys, including a household roster and household KAP survey. Data collection instruments were structured around BAF's logical framework and learning agenda and were refined in consultation with GFEMS and TdH.

Detailed parameters of the data collection tools including sampling approach, estimated duration of respondent interactions, and topics covered are outlined in Table 1. Final data collection instruments are featured in ANNEX 5: DATA COLLECTION INSTRUMENTS.

Table 1: Data Collection Activities and Parameters

Activity	Respondent(s) (Target)	Selection / sampling method	Duration	Survey topics
Community Leader survey	1 Community Leader per Enumeration Area (EA) (up to 268 total)	The Village Elder most closely associated with the sampled EA was targeted. If s/he was absent, the following were targeted (ordered by priority): Village Administrator, religious leader, or Village Chief.	45 minutes	• Community characteristics, such as ethnic composition, infrastructure availability, and presence of migrants and unaccompanied children. • Functionality and activities of community-based child protection structures. • Beliefs and attitudes related to tourism, sex, and the sex industry in the community. • Knowledge about CSEC laws and referral pathways as well as CSEC signs, risk factors, and long-term effects. • Extent to which CSEC is a problem in the community, sub-county, and county writ large.
School survey	1 Head Teacher per EA (up to 268 total)	The school targeted for the school survey was the public primary school within or closest to the EA. If there were multiple public primary schools that were equidistant or within the bounds of the EA, the school serving the largest number of children in the EA was selected. If the Head Teacher was not available, the deputy or teacher in charge was selected.	45 minutes	• School enrollment and dropout figures. • School characteristics such as availability of school facilities and management structures. • Functionality and activities of CRCs. • Knowledge about CSEC laws and referral pathways as well as CSEC signs, risk factors, and long-term effects. • Extent to which CSEC is a problem in the school, sub-county, and county writ large.
Household Roster	8 household heads per EA (2,144 total)	Households were selected in accordance with the sampling protocol described in ANNEX 3: FIELD SAMPLING PROTOCOLS. The household roster was completed by the household head or other person knowledgeable about household members' levels of education and recent economic activities.	10-20 minutes	• Basic demographic information on all household members, including sex, age, marital status, and intra-household relations. • Literacy and schooling of all household members. • Household members' participation in economic activities for the past seven days.

Activity	Respondent(s) (Target)	Selection / sampling method	Duration	Survey topics
Household KAP Survey	8 adult household members per EA (2,144 total)	KAP survey respondents were automatically sampled in the household roster in random order. Household members were eligible to complete the KAP survey if they were at least 18 years of age and physically present at any time when the field team was on location.	60 minutes	• Basic demographic and household socio-economic status information. • Beliefs and attitudes related to tourism, sex, and the sex industry in the community. • Knowledge about CSEC laws and referral pathways as well as CSEC signs, risk factors, and long-term effects. • Extent to which CSEC is a problem in the household, sub-county, and county writ large.

2. RESEARCH METHODS AND LIMITATIONS

RESEARCH METHODOLOGY: QUASI-EXPERIMENTAL IMPACT EVALUATION

Impact evaluations seek to measure changes that can be attributed to a defined intervention by establishing a credible counterfactual to estimate what would have happened to beneficiaries in the absence of the program. By comparing participants with a counterfactual or comparison group, we can "subtract away" the contextual changes that affect both program participants and the comparison group. If program participation is the only substantive difference between participants and the comparison group, then the difference in outcomes can be attributed to the program. Without a rigorous estimate of a counterfactual, there is a risk of over- or under-estimating the program impact.

The preferred approach for impact evaluation involves random assignment to treatment or control conditions so that each group, on average, is statistically similar at baseline, thus any observed differences between the two groups at endline can be attributed to the intervention. Because random assignment was not possible in the case of TdH-BAF, we adopt a quasi-experimental approach through which a viable counterfactual group is constructed using advanced statistical matching techniques. In addition, we will control for time invariant differences between treatment and comparison groups through the use of difference-in-differences statistical analysis, which subtracts off remaining baseline differences between the treatment and comparison units.

INVERSE PROBABILITY OF TREATMENT WEIGHTING

Figure 1: Illustrative Visual of IPTW Procedure

To increase confidence that results are attributable to TdH-BAF, we use inverse probability of treatment weighting (IPTW). This method employs statistical weighting procedures to ensure respondents in communities targeted by the program are analytically comparable to respondents in communities that will not receive the program. IPTW first involves developing a model to predict treatment selection using time invariant household and community characteristics. The propensity scores generated by this model represent a household's likelihood of receiving TdH-BAF based on the observed characteristics in the model. These propensity scores are then used to weight observations during analysis to create a "pseudo-population" of comparable treatment and comparison units. This process helps ensure units that look statistically similar across the corresponding groups are weighted more heavily in the analysis than units that look very different. This principle is visualized in Figure 1, where the size of units (households) represents the relative weight, they carry in the analysis before and after IPTW weights are applied. In sum, IPTW ensures that observations dissimilar to the treatment group are down weighted in the analysis, while observations similar to the treatment group are weighted more heavily.

DIFFERENCE-IN-DIFFERENCES

The difference-in-differences (DiD) method attempts to calculate the treatment effect in non-experimental evaluations by comparing the average change over time in the outcome variable for the treatment group to the average change over time for the comparison group, thus attempting to mitigate the effects of extraneous factors and selection bias. A graphical representation of the DiD methodology is depicted in Figure 2.

Figure 2: Difference-in-Differences Estimator

Additional time invariant control variables can be included in the DiD model to improve the statistical precision of the impact estimates, thus increasing the likelihood of observing statistically meaningful differences between treatment and comparison households at endline, should they exist.

Taken together these methodological approaches will help to ensure that endline impact estimates correct for the fact that comparison communities systematically differ from communities targeted by the TdH-BAF intervention.

SAMPLE SIZE ESTIMATION

The original sample size for the household survey was a function of, among other variables, the minimum detectable effect size (MDES)[9] for changes in KAP. For the purpose of determining sample size, we assumed the program will lead to improvements in KAP of at least 10 percentage points relative to the comparison group.[10] Given the large geographic spread and population size of the target areas, it is not logistically possible to draw a simple random sample of households. As such, a two-stage clustered design was needed whereby communities were sampled in the first stage and households were sampled in the second stage.

Two-stage clustered sampling requires adjusting for intra-cluster correlation (ICC), commonly denoted as ρ, which is the ratio of variability in outcomes between clusters to the total variability in outcomes among the broader sample. Adopting a conservative value of 0.25 for ρ, a fixed sample of eight households per cluster,[11] and standard assumptions of 0.8 for statistical

---

[9] MDES represents the relative minimum change that a study is likely to detect, given a fixed set of parameters.

[10] We assumed a starting value of 50 percent among the comparison group which yields the most conservative (i.e., the largest) sample size.

[11] Assumed a team of two enumerators will visit one community per day, and each enumerator can complete four household surveys per day.

power[12] and 0.05 for significance level,[13] we used Stata's *power* command to calculate the number of clusters required for a two-sample comparison of proportions using the aforementioned parameters. Based on this analysis, a sample of 268 communities (134 per study arm) was established, yielding a target sample of 268 x 8 = 2,144 households.

SAMPLING METHODOLOGY

Kenya is broken into administrative geographic units including counties, sub-counties, divisions, locations, and sub-locations. Sub-locations are further divided into census enumeration areas (EAs), which consist of approximately 100 households each. The baseline sample for the KAP study consisted of 268 census EAs distributed across Kilifi (Kilifi South and Malindi) and Kwale (Lunga Lunga and Msambweni). For the purpose of sampling, it was assumed that the interventions are targeted at the location level. The treatment locations selected by TdH-BAF are highlighted in orange in Table 2 below. The sampling frame of comparison locations is nested within the same counties, sub-counties, and divisions as treatment locations to help ensure comparability.

Table 2: Sample Frame Distribution and Sample Allocation

County	Sub-County	Division	Locations	Frame Distribution		Sample Allocation		
				Rural	Urban	Rural	Urban	Total
Kilifi	Kilifi South	Kikambala	Junju Mavueni/Takaungu	120	29	3	29	208
			Mtwapa	76	213	16	44	
	Malindi	Malindi	Ganda Gede Goshi	123	19	4	19	
			Malindi	71	308	15	63	
			Watamu	26	47	5	10	
Kwale	Lunga Lunga	Lunga Lunga	Dzombo Kasemeni Kikoneni Mwena Mwereni Vanga	271	0	7	0	60
			Lunga Lunga	32	8	7	2	
	Msambweni	Diani	Kinondo	64	0	2	0	
			Diani [Ukunda]	40	162	8	34	

---

[12] Statistical power (β) is the probability that a study will detect an effect of a given size if one in fact exists (β is also known as the complement of the probability of a false negative/type II error).

[13] Statistical significance (α) level is the pre-selected threshold at or below which the null hypothesis is rejected. It is equal to the probability of a type I error (false positive). P-values (probability values) at or below α indicate that the observed result is statistically significant.

For the first step of sampling, EAs were randomly selected within treatment locations, with the number of EAs from each location proportional to the population size of the overall treatment sampling frame. Once treatment EAs were randomly selected, urban/rural strata were established for each division based on the urban/rural allocation of the treatment sample. Within each division, EAs in comparison locations were pooled and comparison EAs were drawn using the same urban/rural strata as the final treatment sample.[14]

Sampling of EAs was conducted in collaboration with the Kenyan National Bureau of Statistics (KNBS). It was originally planned that the 268 EAs would be equally distributed between study arms (134 treatment and 134 comparison) to optimize the statistical power of the study. However, while drawing the sample, KNBS revealed that this distribution was not feasible using urban/rural stratification because there were not enough urban EAs in the comparison locations to match to the treatment group (the total number of urban EAs in the comparison sampling frame was only 48). The count of EAs in the treatment sampling frame was 245 rural and 738 urban, or 25 percent rural and 75 percent urban. To ensure the urban/rural distribution of the comparison group matched the distribution in the treatment group, the sample for comparison was limited to 64 EAs (48 urban and 16 rural, which is 75 and 25 percent respectively). As such, the final sample included 64 comparison EAs and the other 204 EAs were distributed proportionally across the treatment group. Broken down by county, 55 comparison EAs and 153 treatment EAs were from Kilifi County, and 9 comparison EAs and 51 treatment EAs were from Kwale County.

Of note, Table 2 shows there are no urban EAs in Kwale outside of the intervention locations. Consequently, counties will be combined and analyzed as one unit for the purpose of impact estimation to ensure treatment and comparison groups are fully balanced in terms of the urban/rural distribution of EAs.

Complete field sampling procedures are detailed in ANNEX 3: FIELD SAMPLING PROTOCOLS.

TARGET VERSUS ACTUAL SAMPLE

In terms of the household sample, 99 percent of the target was achieved for the roster survey and 94 percent of the primary sample of households consented to participate in the study (6 percent of sampled households were unavailable or refused and were thus replaced with alternates). Once a roster was completed, the survey form randomly selected one eligible adult member from each household to complete the KAP survey, which totaled 2,057 individuals. The completed roster survey is below target because respondents were not available or refused to take the survey after several callbacks. The realized household KAP survey number is below the target for three main reasons: respondents were not available for interviewing despite multiple call-back attempts; respondents traveled out of town; or respondents declined to be interviewed.

---

[14] It is important to note that this sampling design ensures representativeness only of the treatment locations; comparison locations will not be representative of the comparison sampling frame due to the stratification approach.

Table 3: Target versus Actual Sample of Community Leaders, Head Teachers, and Households

Sampling Unit	Realized Sample	Target Sample	Percent of Target
Enumeration Areas	268	268	100%
Community Leaders	181	268	67.5%
Head Teachers	57	268	21.3%
Households	2,120	2,144	98.9%
Household Rosters	2,120	2,144	98.9%
KAP Surveys	2,057	2,144	95.9%

For the community leader survey, a total of 181 interviews were conducted, which accounts for 68 percent of the target sample. The target sample was not achieved because multiple selected EAs shared one Village Elder, or there was no Community Leader in the selected EA. In one case, the Village Elder was sick and couldn't make the interview.

A total of 57 interviews were conducted with head teachers, which accounts for 21 percent of the target sample. However, this is entirely due to the fact that for the majority of EAs, the closest primary school had already been enumerated since it was attached to another EA in the sample. NORC will work with TdH and GFEMS to revisit the school sampling strategy at endline.

During data collection, two originally sampled EAs could not be enumerated. An urban treatment EA in Diani had to be replaced because the entire EA is occupied by cottages and apartments for short stay visitors. In addition, an urban comparison EA in Gede had to be replaced because the EA was dominated by foreigners (expatriates) and the team was denied access to the community, even in the presence of the Village Elder and KNBS cluster guides. Fortunately, KNBS provided two additional EA maps—one urban treatment EA in Malindi and one rural comparison EA in Mwena—which were used to replace these EAs.

UPDATED POWER ANALYSIS

Drawing on actual baseline data and using the revised treatment and comparison EA sample distribution, we present updated statistical power analysis for a subset of KAP outcome variables.[15] As shown in Table 4, the minimum detectable change dropped from the original estimate of 10 percentage points to six points on average, representing a remarkable gain in power relative to the original sampling design.

While there was a loss in power due to the unequal allocation of EAs to treatment and comparison groups, this was more than made up for by the lower-than-expected ICCs combined with the comparison group means being off from the conservative assumption of 0.5 in most cases. Overall, the current study design is powered to statistically detect changes in KAP ranging from three to eight percentage points.

---

[15] Other assumptions including a fixed sample of eight households per EA, 0.8 for statistical power, and 0.05 for the statistical significance level remain unchanged.

Table 4: Updated Statistical Power Analysis for Household Survey KAP Outcomes

Household KAP Variable	ICC	Comparison Mean	MDES
Respondent agrees with statement "Minors that cater to sex tourists are lucky to be able to earn money this way."	0.03	0.16	0.06
Respondent agrees with statement "Having sex for money is an acceptable way for minors to help support their families."	0.01	0.08	0.05
Respondent agrees with statement "Child sex tourism should continue because it is good for the local economy."	0.00	0.06	0.04
Respondent agrees with statement "Minors are incapable of consenting to having sex for money."	0.06	0.50	0.08
Respondent agrees with statement "Any minor that accepts money for sex should be arrested."	0.07	0.85	0.06
Respondent believes that exchanging sex for money negatively impacts a minor's well-being.	0.02	0.95	0.03
Respondent is familiar with the term "commercial sexual exploitation of children" or "CSEC".	0.03	0.56	0.06
Respondent is aware of legislation in Kenya that specifically addresses CSEC.	0.04	0.42	0.08
If respondent personally became aware of CSEC happening in the community, he or she would report it.	0.01	0.89	0.04
Respondent approached someone in the past 12 months to talk about CSEC.	0.05	0.11	0.06
Respondent reports having seen or heard advocacy messages related to CSEC in the past 12 months.	0.03	0.31	0.08

BALANCE STATISTICS

Following the application of sampling and IPTW weights—the procedures for which are detailed in ANNEX 1: SAMPLING WEIGHTS and ANNEX 2: INVERSE PROBABILITY OF TREATMENT WEIGHTING (IPTW) respectively—we tested baseline balance between treatment and comparison groups across a range of respondent characteristics and KAP indicators in order to preliminarily assess the internal validity of the study design. Balance was evaluated by examining the p-values for differences in means between treatment and comparison groups for 40 different covariates, as outlined in Table 5 and Table 6.

To correct for the increased likelihood of false positives under multiple hypothesis testing, the p-value threshold for significance was adjusted downward using Bonferroni correction. Specifically, the Bonferroni corrected p-value is given by α/T where α is the desired p-value threshold (in our case, the conventional 0.05) and T is the number of statistical hypothesis tests performed (40). In Table 5 and Table 6, highlighted cells are color coded as follows: red = $p<0.00125$ (Bonferroni adjusted); orange = $p<0.01$; yellow = $p<0.05$; and green = $p<0.10$.

Table 5: Weighted Respondent Characteristics' Differences between Treatment and Comparison Groups at Baseline (Household Survey)

Variable	Comparison	Treatment	Difference	P-value
Number of years lived in the community	28.36	25.71	-2.65	0.240
Reports having disability including difficulties in seeing, hearing, speaking, walking, climbing steps, washing, dressing, remembering, or concentrating	0.12	0.10	-0.03	0.434
Number of household dwelling units per household member	0.34	0.34	0.00	0.967
Number of habitable rooms per household member	0.84	0.72	-0.12	0.127
Number of children living in household	3.45	2.71	-0.74	0.008
Number of household members	6.23	5.65	-0.58	0.015

Using the adjusted p-value threshold of 0.00125, there are no statistically significant differences between treatment and comparison groups at baseline, and only seven of 40 variables are marginally significant at p<0.05. The sampling and weighting approaches were thus successful in generating a credible pseudo-population of comparable treatment and comparison units. While some marginally significant imbalance remains on several variables, we will employ difference-in-differences (DiD) to help correct for this during endline analysis. In addition, we will assess whether endline impact estimates are robust to controlling for these marginally imbalanced variables[16] in the DiD regression models.

In sum, the proposed research design was successful in generating a credible comparison group for the impact evaluation. The sampling strategy coupled with the use of inverse probability of treatment weighting resulted in treatment and comparison groups that are statistically balanced at baseline. While some marginally significant imbalance remains on several variables (the corresponding p-values of these variables are highlighted above), the research team has put forth multiple strategies for correcting for this during endline analysis.

---

[16] Because the household sample is cross-sectional, control variables will be calculated as EA-level baseline means.

Table 6: Weighted KAP Differences between Treatment and Comparison Groups at Baseline (Household Survey)

Variable	Comparison	Treatment	Difference	P-value
Agrees with statement "Minors that cater to sex tourists are lucky to be able to earn money this way."	0.16	0.11	-0.06	0.028
Agrees with statement "Men who buy sex from minors can avoid getting HIV/AIDS."	0.08	0.07	-0.01	0.715
Agrees with statement "Sex with a virgin can cure HIV/AIDS.	0.04	0.02	-0.02	0.270
Agrees with statement "Girls that have sex for money should be given alternative ways to earn a living."	0.91	0.93	0.02	0.472
Agrees with statement "Women that have sex for money should be given alternative ways to earn a living."	0.94	0.95	0.01	0.745
Agrees with statement "Boys that have sex for money should be given alternative ways to earn a living."	0.89	0.93	0.04	0.128
Agrees with statement "Men that have sex for money should be given alternative ways to earn a living."	0.93	0.92	0.00	0.917
Agrees with statement "Minors who drop out of school to get married will be better off financially than those who remain in school."	0.02	0.05	0.03	0.002
Agrees with statement "Minors who drop out of school to serve sex tourists will be better off financially than those who remain in school."	0.04	0.07	0.03	0.046
Agrees with statement "Foreign tourists who pay to have sex with minors in Kenya should be arrested."	0.99	0.98	-0.01	0.365
Agrees with statement "Kenyans who pay to have sex with minors should be arrested."	0.98	0.98	0.00	0.780
Agrees with statement "Minor girls that have sex for money are acting immorally."	0.88	0.88	0.00	0.951
Agrees with statement "Minor boys that have sex with women for money are acting immorally."	0.88	0.88	0.00	0.937
Agrees with statement "Minor boys that have sex with men for money are acting immorally."	0.90	0.90	-0.01	0.766
Agrees with statement "Having sex for money is an acceptable way for minors to help support their families."	0.08	0.03	-0.05	0.311

Variable	Comparison	Treatment	Difference	P-value
Agrees with statement "Child sex tourism should continue in ${county} because it is good for the local economy."	0.06	0.04	-0.02	0.415
Agrees with statement "Most minors in the sex industry are free to enter or exit the trade whenever they want."	0.31	0.37	0.06	0.133
Agrees with statement "Minors are incapable of consenting to having sex for money."	0.50	0.56	0.06	0.263
Agrees with statement "Any minor that accepts money for sex should be arrested."	0.85	0.94	0.09	0.056
Agrees with statement "Minors who have exited the sex industry are worthy of kindness and respect."	0.97	0.98	0.01	0.714
Believes that exchanging sex for money negatively impacts a minor's well-being.	0.95	0.93	-0.01	0.627
Progress Out of Poverty index score.	56.92	61.81	4.89	0.225
Age at which respondent believes people ready to take on adult responsibilities.	14.80	16.49	1.68	0.015
Respondent is familiar with the term "commercial sexual exploitation of children" or "CSEC".	0.56	0.49	-0.08	0.293
Respondent is aware of legislation in Kenya that specifically addresses CSEC.	0.42	0.40	-0.03	0.613
If respondent personally became aware of CSEC happening in the community, s/he would report it.	0.89	0.93	0.03	0.309
If respondent personally became aware of CSEC happening in the community, s/he would intervene in other ways.	0.41	0.48	0.07	0.088
Respondent knows of actual cases of CSEC in ${sub-county} that occurred in the last 12 months.	0.30	0.26	-0.04	0.241
Household member(s) participate in community-based structures or groups.	0.31	0.19	-0.12	0.019
Respondent was approached by someone in the past 12 months to talk about CSEC.	0.15	0.11	-0.04	0.505
Respondent approached someone in the past 12 months to talk about CSEC.	0.11	0.14	0.02	0.491
Respondent reports having seen or heard advocacy messages related to CSEC in the past 12 months.	0.31	0.24	-0.08	0.111
Household received direct support from NGOs, FBOs, or CBOs in the past 12 months.	0.11	0.08	-0.04	0.383

DATA ANALYSIS

Primary quantitative data analysis was conducted using the Stata SE/15.1 statistical software package. At baseline, analysis of survey data features summary statistics of household demographic characteristics and other key outcomes of interest. To assess the extent to which TdH-BAF improves community KAP, we employed a difference-in-differences ordinary least squares (OLS) regression model at endline, where program impact is given by the coefficient β_1 in the following equation:

$$Y_{is} = \beta_0 + \beta_1(T_s * P) + \beta_2 T_s + \beta_3 P + \beta_4 X_s + \beta_5 X_{is} + \ni$$

Where Y_{is} is the outcome of interest[17] for respondent i in community s, T_s is a dummy equal to one if community s is a TdH-BAF community, P is a dummy equal to one if the observation is an endline observation, X_s is a vector of baseline covariates for community s, X_{is} is a vector of time invariant controls for respondent i in community s, and $\ni$ is the error term.

LIMITATIONS

PARALLEL TRENDS ASSUMPTION

The DiD methodology assumes the treatment and comparison groups, in the absence of the program, would display the same trends over time or, in other words, would move in parallel. This is an assumption that we cannot verify directly. However, using IPTW to ensure that treatment and comparison groups are as alike as possible increases the probability that the groups' trajectories over time are identical. To further reduce bias and ensure that the groups are as similar as possible, we also will consider the basic characteristics of communities and households in the analysis to produce adjusted DiD at endline.

CONTAMINATION AND COMPLIANCE

Contamination occurs when there is crossover between treatment and comparison groups. For example, if community members from treatment areas move to the comparison areas (or vice versa), it may lead to underestimation of program impact. Similarly, if teachers or youth club leaders were to move between treatment and comparison schools, the internal validity of the research design would be threatened as children in treatment schools would no longer be receiving the full intervention. Finally, contamination may occur if interventions similar to TdH-BAF target the comparison sites.

To evaluate the risk of contamination, we will collect data on the movement of respondents at endline and if/when contamination or non-compliance is observed, sensitivity analyses will be conducted such as testing if observed results are robust to the exclusion of contaminated sites. The team will also work to capture data from community leaders on whether programs similar to TdH-BAF are operating in sampled areas and, if appropriate, analyze whether program impacts are robust to the exclusion of these contaminated sites.

---

[17] For binary outcome variables, we will employ the logistic regression model $\text{Ln} \frac{Z_{is}}{1-Z_{is}} = \beta_0 + \beta_1 T_s * P + \beta_2 T_s + \beta_3 P + \beta_4 X_s + \beta_5 X_{is} + \ni$ where Z_{is} is a dummy equal to one if respondent i in community s has the KAP characteristic of interest, with other parameters being the same as the model described above. For ease of interpretation, odds ratios for β will be reported as marginal effects.

SPILLOVERS

Spillovers occur when members of the comparison group receive indirect or secondary benefits from the treatment. For example, if county-level policy directives lead to the scale up certain TdH-BAF components to all locations, comparison locations would receive some elements of the intervention which may in turn lead to underestimation of program impact. To assess the risk of spillovers, the research team will gather information from TdH and community leaders to examine the extent to which TdH-BAF inputs or activities are affecting comparison locations.

3. DATA COLLECTION PREPARATION AND MANAGEMENT

For data collection, NORC subcontracted with Kantar Public (formerly TNS), an international data collection, research, and consultancy firm with headquarters in Nairobi and two additional regional offices in Kenya. Kantar was selected based on their experience managing logistically complex data collection activities in Kenya; ability to rapidly mobilize to recruit a large pool of experienced and qualified supervisors and enumerators; demonstrated expertise managing methodologically demanding mixed-methods research; experience using tablets for data collection; past performance conducting exercises of similar scope and scale; and value for money. Kantar also has established relationships with Kenyan government agencies, NGOs, and the local academic and research community.

Project oversight was provided by NORC and Kantar and project execution was administered by field teams. Each field team was assigned to specific sub-counties and EAs and moved together as a team to complete data collection. Each field team consisted of a Quality Control Officer (QCO) and a Supervisor who reported to Kantar's regional Field Coordinator. Each Supervisor managed a team of five Enumerators—including four household Enumerators and one community/school enumerator—and two household samplers. Supervisors and Enumerators traveled together as a team, covering approximately two EAs on a given day, while QCOs and household samplers at times rotated between teams and EAs to conduct sampling and data quality assurance activities in an efficient manner.[18] The final team structure comprised of 67 personnel and six field teams.

TRAINING, PRE-TESTING, AND PILOTING

Training occurred in two phases. First, NORC directly trained the Survey Manager, Field Coordinator, and supervisors to support the main training. This Supervisor training took place from January 19-25 and included a pre-test exercise to field and finalize the data collection instruments prior to the main enumerator training. Following the Supervisor training, a five-day enumerator training and pilot was held in Mombasa from February 1-5, 2021.

SUPERVISOR TRAINING AND PRE-TESTING

The Supervisor training was focused on orienting field management to the study, data collection procedures, sampling, logistics, and administration of the tools as well as preparing them to lead breakout sessions during the main enumerator training. In addition, the Supervisor training included a pre-test that featured both a "lab review" and a field test of the data collection instruments. The purpose of the lab review was to draw on the participants' extensive research experience in Kenya to improve comprehension and contextual appropriateness of the survey questions; ensure response options were clear, exhaustive, and mutually exclusive; and identify additional guidance that enumerators might need to help them clarify or probe respondents in cases where a question was unclear.

---

[18] Household samplers were a separate team of people that went to the EAs in advance to conduct the field sampling of households so the enumeration teams could use their time efficiently and start interviews as soon as they arrived to the EAs. QCOs were tasked with quality assurance activities including sit-ins/observations, back check interviews, and weekly reporting.

The survey instruments were updated based on the lab review, and supervisors field tested them in communities similar to those targeted by the main study but outside the sampling frame. The purpose of the field test was to assess whether respondents struggled with understanding, comprehension, or recall; identify which tools/approaches were helpful in improving comprehension and recall; determine if any questions were subject to response bias or perceived as overly sensitive by respondents; and identify any other unforeseen issues or challenges. Following the field test, NORC and Kantar conducted extended debrief sessions with the supervisors to identify any necessary final adjustments to the instruments prior to the main training.

ENUMERATOR TRAINING AND PILOTING

The main enumerator training included a combination of plenary sessions (led by the NORC team) and breakout review and practice sessions (led by field management) to orient enumerators on field procedures and instruments. Plenary sessions covered study design, informed consent, use of tablets and survey software, sampling and tracking protocols, and data quality assurance procedures. For survey administration, there were two parallel training tracks: a household track which covered the household KAP survey and roster and a community group track which covered the Community Leader and Head Teacher surveys. The final days of the training consisted of a pilot exercise and debrief in nearby communities to ensure enumerators had adequate practice prior to launch. Following the main training, QCOs, samplers, and enumerators were selected to participate in field work. Selection was made based on training attendance and participation, pilot performance, and written exams. Selected teams then travelled to their respective regions to commence data collection, which took place from February 9 to March 17.

DATA QUALITY ASSURANCE

Data collection was tablet-based, utilizing SurveyCTO/Open Data Kit (ODK). Survey programming was conducted in-house by NORC and data collection platforms/servers were centrally managed by the research team. All tablets and servers were encrypted to ensure maximum data security. Data uploads were completed on a daily basis (connectivity permitting) to allow for real-time data quality reviews. A data quality assurance (DQA) protocol was established to set forth data quality standards/requirements and team member responsibilities in ensuring high quality data during field work. Complete DQA protocols, procedures, and findings are detailed in ANNEX 4: DATA QUALITY ASSURANCE PROCEDURES AND PROTOCOLS.

RESEARCH ETHICS AND STUDY AUTHORIZATION

This study was conducted in line with human subjects research guidelines both in the United States and Kenya. NORC follows established protocols for gathering informed consent, protecting anonymity and identifying information, and ensuring ethical data collection—including from children and other vulnerable populations. To ensure compliance with our high ethical standards, all research involving vulnerable populations must pass through formal Institutional Review Board (IRB) review prior to data collection and all research staff must complete a certified course in Protecting Human Research Participants through the National Institutes of Health (NIH) or Collaborative Institutional Training Initiative (CITI).

Field teams were extensively trained on research ethics, including confidentiality and informed consent procedures. Consent/assent was verbally attained from study participants, and all respondents were offered a printed consent/study information sheet signed/certified by the enumerator for record-keeping purposes. NORC sought and received approval from its internal IRB, which follows a formal process for ensuring all research projects are conducted in accordance with the U.S. Federal Policy for the Protection of Human Subjects. NORC's IRB is registered with the U.S. Department of Health and Human Services Office of Human Research Protection and has a Federal-wide assurance (Federal-Wide Assurance FWA 00000142). The IRB takes an active role in helping guide protocols to meet the highest standards for human subject protections. NORC's IRB requires that research protocols provide sufficient detail to ensure that (1) the selection of subjects is equitable, subjects' privacy is protected, and data confidentiality is maintained; (2) informed consent is written in language that study participants can understand and is obtained without coercion or undue influence; and (3) appropriate safeguards to protect the rights and welfare of vulnerable subjects. NORC also obtained local IRB approval from AMREF, a local IRB accredited by Kenya's National Commission for Science, Technology and Innovation (NACOSTI).

3. BASELINE FINDINGS

Findings from baseline data collection are presented in this section in accordance with the following roadmap. First, we provide basic summary statistics and demographic characteristics for the baseline respondents. Second, we present baseline data for each of the three categories of KAP (knowledge, attitudes, and practices) and for the three classes of respondents (household members, community leaders, and head teachers). The primary purpose of reporting baseline KAP is to inform program design, adaptation, and iteration for GFEMS and its implementing partners. Finally, we examine the equivalence of treatment and comparison groups at baseline across a range of demographic and KAP measures in order to assess the internal validity of the research design described in 2. RESEARCH METHODS AND LIMITATIONS.

RESPONDENT DEMOGRAPHIC CHARACTERISTICS

Data for the household KAP survey was collected between February 9 and May 3, 2021. A total of 2,057 selected households successfully completed KAP interviews, which accounts for 96 percent of the target sample. In line with the sampling methodology described in Section 2, 1,602 (78 percent) of respondents were from Kilifi County, and 455 (22 percent) were from Kwale County. Table 7 below shows details on the respondents' places of residence.

Table 7: Household KAP Interviews by County and Sub-County

County	Sub-county	Count	Percent
Kilifi	Kilifi South	692	33.6%
	Malindi	910	44.2%
Kwale	Lunga Lunga	136	6.6%
	Msambweni	319	15.5%
Total		**2,057**	**100%**

The sample featured a higher percentage of female respondents (71 percent) than male respondents, likely owing to the fact that women were likely to be at home at the time of data collection (overall, only 28 percent of sampled households were female-headed households). The mean age of respondents was 36 years, with a minimum age of 18 and maximum age of 90 years. Forty-one percent of the interviews were conducted in urban settings. Respondents reported an average of 27 years of residence in the community, suggesting a high level of familiarity with local conditions. Table 8 shows the socio-economic profile of the household sample.

Table 8: Household KAP Respondent Demographic Characteristic

Variable	Mean
Female (fraction)	0.71
Age (average)	36.35
Kiswahili as the primary language (fraction)	0.59
Urban (fraction)	0.41
Years living in this community (average)	27.02
Ethnicity = Mijikenda (fraction)	0.81
Disability (fraction)	0.11
Literacy (fraction)	0.77
Household size (average)	5.94
Number of children per household (average)	3.08
Number of respondents with a child aged 10-17 (fraction)	0.33
Number of habitable rooms per household member (average)	0.78
Number of dwelling units per household member (average)	0.34
Likelihood of living below Kenya's national poverty line (average)[19]	0.25

The sample featured a higher percentage of female respondents (71 percent) than male respondents, likely owing to the fact that women were likely to be at home at the time of data collection (overall, only 28 percent of sampled households were female-headed households). The mean age of respondents was 36 years, with a minimum age of 18 and maximum age of 90 years. Forty-one percent of the interviews were conducted in urban settings. Respondents reported an average of 27 years of residence in the community, suggesting a high level of familiarity with local conditions. Table 8 shows the socio-economic profile of the household sample.

As shown in Figure 3, nearly one-third of the sample identified as Muslim with 64 percent belonging to various Christian sects. Around 70 percent of respondents were married (monogamous, polygamous, or separated). Less than one-third of respondents had completed secondary school, with 72 percent dropping out before completing secondary school. The dropout rates for female respondents was higher, with 77 percent dropping out before completing secondary school compared to 59 percent for male respondents.

---

[19] The likelihood is calculated based on a poverty measurement tool named Poverty Probability Index (PPI). We have elaborated the tool and methods in a subsequent paragraph. The national poverty line referenced here uses results from the 2015 Kenya Integrated Household Budget Survey (KIHBS). The overall rural and urban poverty lines are, respectively, 3,252 and 5,995 Kenya shillings (Kshs) per month per person (in adult equivalent terms) and include minimum provisions for both food and nonfood expenditures.

Figure 3: Household KAP Respondents' Religious Affiliation, Marital Status, and Education Level
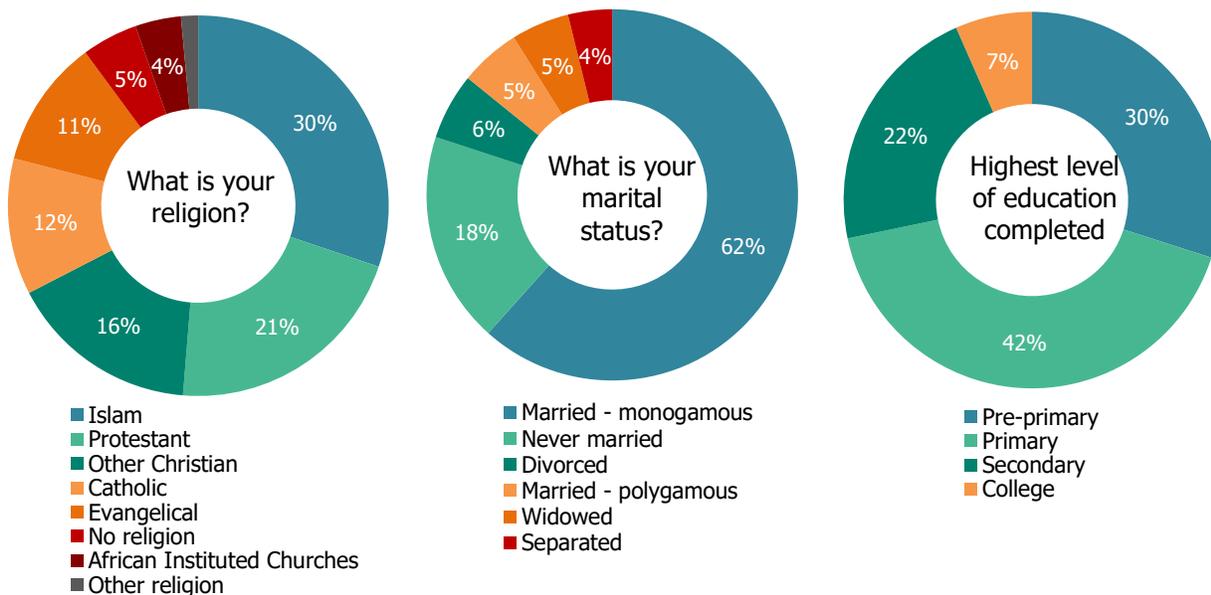
Household poverty was assessed using the Poverty Probability Index (PPI) tool for Kenya, a simple but statistically-validated poverty measurement tool that asks 10 questions about a household's characteristics and asset ownership and is scored to compute the likelihood that the household is living below the poverty line. [20] Kenya's PPI includes questions on county of residence, highest level of education completed by the female household head/spouse, highest level of education completed by any household member, consumption of perishables over the past seven days (including bread, meat/fish, and bananas), ownership of household goods (towels and thermos flasks), and the predominant wall and flooring materials of the main dwelling. PPI scores range from zero to 100, with zero being the most poor and 100 being the least poor.

PPI Scores can be cross-referenced with national poverty line (NPL) data to estimate the probability that a given household falls below the NPL. Figure 4 shows the distribution of PPI scores for the household sample, which are color-coded based on the probability of households within that bucket falling below the NPL in Kenya. Across the sample, there is a 25 percent chance of a given household falling below Kenya's NPL, slightly below the NPL rate of 36.1 percent at the national level.[21] PPI scores did not significantly differ between male and female respondents or for households with or without children.

---

[20] Innovations for Poverty Action (2018). Kenya 2015 PPI User Guide. Retrieved from https://www.povertyindex.org/country/kenya.

[21] According to KNBS, the NPL is 3,252 KSH (30 USD) per month, per person (in adult equivalent terms) for rural areas and 5,995 KSH (56 USD) per month, per person in urban areas. For more information, see World Bank Group (2020). Poverty and Equity Brief Kenya. Retrieved from https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_KEN.pdf.

Figure 4: Histogram of PPI Scores for Sampled Households
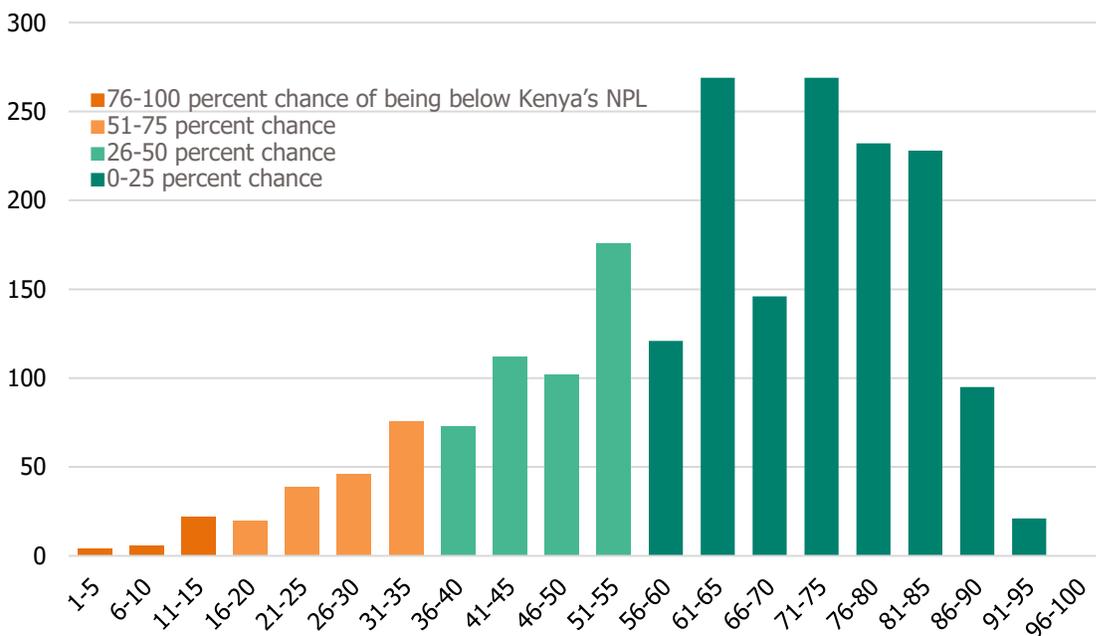
HEAD TEACHER KAP

The Head Teacher KAP survey was fielded from February 9 to March 17, 2021. A total of 57 respondents from different public primary schools in the study region completed interviews. The positions they held included Head Teacher (26 of 57), Deputy Head Teacher (29 of 57), and senior teachers (2 out of 57). The average number of years participants served in their current positions at their school was five, with a minimum tenure of two months and maximum of 13 years. Out of the 57 respondents, 35 were male (61 percent) and 22 were female (39 percent). Forty-four percent had an S1 diploma, followed by Bachelors of Education (42 percent), Masters of Education (7 percent), and P1 diploma (7 percent).

The majority of schools have grade levels one to eight (90 percent). Enrollment sizes vary from 43 to 2,479, with an average of 855 students per school. Thirty schools in the sample reported pupil dropouts in the current academic year (2020/21).

COMMUNITY LEADER KAP

Data for the Community Leader KAP survey was collected between February 9 and March 17, 2021. In total, 194 respondents from different communities completed interviews, including 187 Village Elders, 6 Nyumba Kumi[22] Elders, and 1 Assistant Village Elder. The average age of participants was 56 years, and approximately 76 percent were male. Respondents reported an average of 38 years of residence in their community, and nine years serving in their current position.

---

[22] Nyumba Kumi is a community policing initiative aimed at improving security management and crime prevention at the local level.

Table 9: Community Leader Demographic Characteristics

Variable	Mean
Female (fraction)	0.24
Age (average)	55.95
Kiswahili as the primary language (fraction)	0.77
Education level	
Pre-primary or none	0.25
Primary	0.48
Secondary, post-primary, or vocational	0.23
College level or higher	0.04
Years living in this community (average)	38.11
Years served as leader in this community (average)	9.26
Ethnicity = Mijikenda (fraction)	0.81

COMMUNITY PERCEPTIONS OF CSEC VICTIMS

According to household survey respondents, minor victims in the sex industry are primarily local residents. About one-third of the respondents mentioned other coastal counties as another common place of origin. A large fraction of these victimized children belong to the Mijikenda, Kamba, Kikuyu, Luo, and Luhya ethnic groups. Respondents reported poverty (86 percent), lack of job opportunities (26 percent), peer pressure (24 percent), abandonment (23 percent), and parental neglect (21 percent) as the biggest risk factors that make children vulnerable to CSEC.

Figure 5: Where CSEC Victims Commonly Originate (Household Survey)
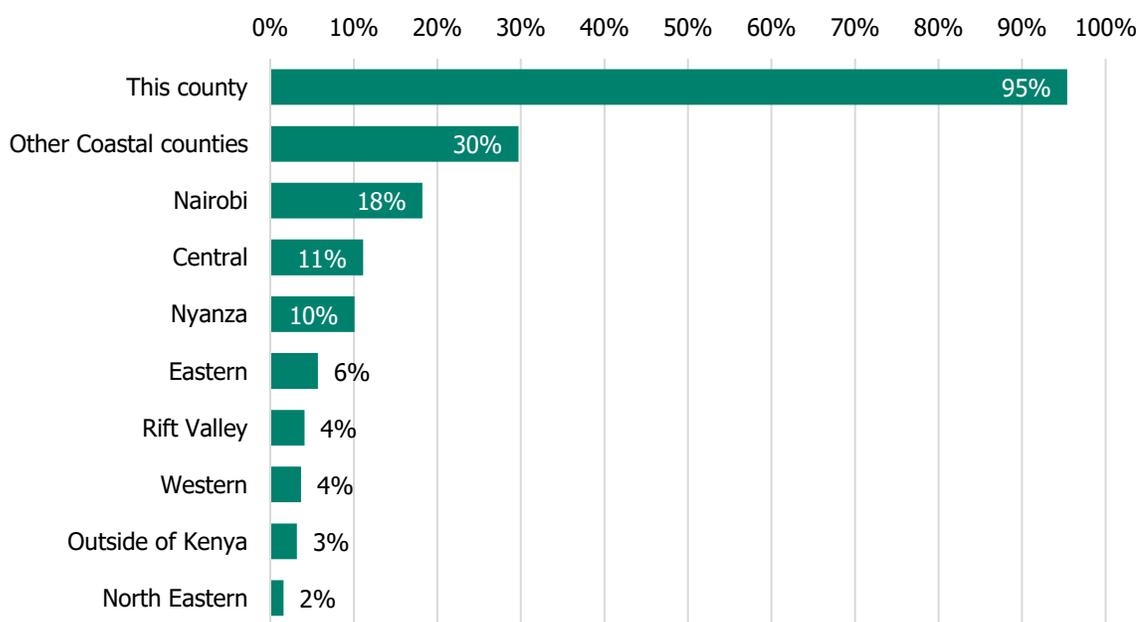
BASELINE STATUS FOR KEY KAP VARIABLES

COMMUNITY KNOWLEDGE ABOUT CSEC

In line with the TdH-BAF theory of change, the knowledge category is focused on measuring awareness of CSEC definitions, victim identification, reporting channels, and referral mechanisms among community leaders, schools, and households.

Overall, 53 percent of the household respondents were familiar with the term "commercial sexual exploitation of children" or its abbreviation "CSEC" at baseline. Female respondents were significantly less likely to be familiar with the term CSEC, with 49 percent knowing the term as compared to 61 percent of men. Forty-one percent of the household respondents were aware of legislation in Kenya that specifically addresses CSEC. Of these respondents, 97 percent were able to name at least one specific law. Two laws that were most commonly mentioned were Children's Act (55 percent) and Penal Code (21 percent). Relative to households, percentages of respondents who knew the term CSEC were higher among community leaders (75 percent) and head teachers (89 percent). Among these respondents, about 77 and 94 percent, respectively, were aware of legislation in Kenya that specifically addresses CSEC. Ninety-nine percent of household respondents recognized that purchasing sex from a minor is completely illegal in Kenya, however five percent did not know that doing so was subject to custodial sentence and instead believed that perpetrators were merely required to pay fines.

After being briefed on the formal definition of CSEC,[23] respondents were asked to estimate how common CSEC is in the county in which they reside. Ninety-two percent of household respondents from Kilifi and 88 percent from Kwale considered CSEC to be very common or somewhat common in their county. As shown in Figure 6, over two-thirds of respondents in Malindi and Msambweni consider CSEC to be very common in the sub-county. While also common in Lunga Lunga and Msambweni sub-counties, over 20 percent of residents in Lunga Lunga said CSEC is either not common or non-existent while 16 percent said the same for Kilifi South.

Figure 6: How Common CSEC is in Respondent's Sub-County (Household Survey)

■ Very common   ■ Somewhat common   ■ Not very common   ■ Non-existent

---
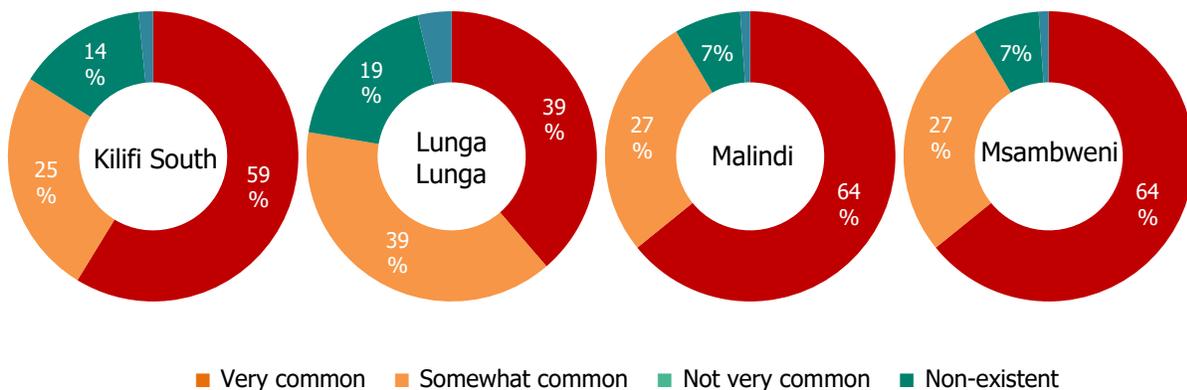
[23] The definition provided is as follows: "CSEC occurs when any person under 18 does sexual things in exchange for money or things worth money, like a place to stay, food, or gifts. The money or goods/services can be received by the minor or by someone else."

In Kilifi County, 98 percent of community leaders and 100 percent of head teachers thought CSEC was common.[24] In Kwale, community leaders and head teachers were less likely to report CSEC as common (62 and 52 percent, respectively). Across the different regions and respondent groups, nearly everyone said that CSEC was prevalent to at least some extent. Despite this, very few households saw their own children as being at-risk: only four percent of households said they believed their children had been subject to CSEC in the past, and just 22 percent believed their children were vulnerable to being victimized in the future.

Table 10: Most Commonly Mentioned Signs to Identify CSEC Victims

Households	Community leaders	Head teachers
1. Less appropriately dressed than before (58%) 2. Comes home late at night or very early in the morning (45%) 3. Has access to money or material items that do not fit their situation (25%) 4. Repeatedly runs away from home (23%) 5. Stops going to school (19%)	1. Less appropriately dressed than before (56%) 2. Comes home late at night or very early in the morning (41%) 3. Has access to money or material items that do not fit their situation (39%) 4. Sexualized behavior (25%) 5. Communication/movement is monitored by someone (22%)	1. Appears frightened, anxious, withdrawn, depressed, distracted, or checked (47%) 2. Stops going to school (44%) 3. Has access to money or material items that do not fit their situation (33%) 4. Comes home late at night or very early in the morning (30%) 5. Violent or criminal behavior (30%)

Respondents were then asked an open-ended question about their knowledge on signs that a child could be a victim of CSEC,[25] the top five of which are summarized above in Figure 7. In the household survey, the most commonly mentioned signs include "less appropriately dressed than before" (58 percent), "comes home late at night or very early in the morning" (45 percent), "has access to money or material items that do not fit their situation" (25 percent), and "repeatedly runs away from home" (23 percent). The first three of these signs were also among the most highlighted factors for community leaders. Additionally, community leader respondents mentioned "sexualized behavior" (25 percent), "communication/movement is monitored by someone" (22 percent), and "shows signs of physical, emotional, or sexual abuse" (21 percent) as indicators of CSEC victimization. For head teachers, children who "appear frightened, anxious, withdrawn, depressed, distracted, or checked out" in their daily behavior, or those who "stop going to school" were two frequently cited signs that a child may be a victim of CSEC.

On average, respondents accurately reported 1.7 of 14 physical and behavioral indicators of CSEC, as defined by the congressionally established National Center for Missing and Exploited Children (NCMEC). The most commonly cited NCMEC indicators were having access to money or materials that don't fit the child's situation (25 percent), repeatedly running away from home (23 percent), stopping school (19 percent), violent or criminal behavior (18 percent), and having an older boyfriend or friends with a different lifestyle (15 percent). Lesser known NCMEC

---

[24] In this paragraph, "common" is comprised of both "very common" and "somewhat common" responses.

[25] Behavioral and physical indicators of CSEC were adapted from a list created by the National Center for Missing and Exploited Children. See e.g., Boys & Girls Clubs of America (n.d.). Child Sex Trafficking Prevention Guide.

indicators included exhibiting signs of abuse (5 percent), having multiple cell phones (4 percent), being unable to freely leave one's environment (3 percent), frequenting hotels (1 percent), and having a new tattoo (<1 percent). Overall, 24 percent of households with children reported watching for signs that their children are at-risk of CSEC.[26]

Figure 7: Number of NCMEC Physical and Behavioral Indicators of CSEC Known to Respondents
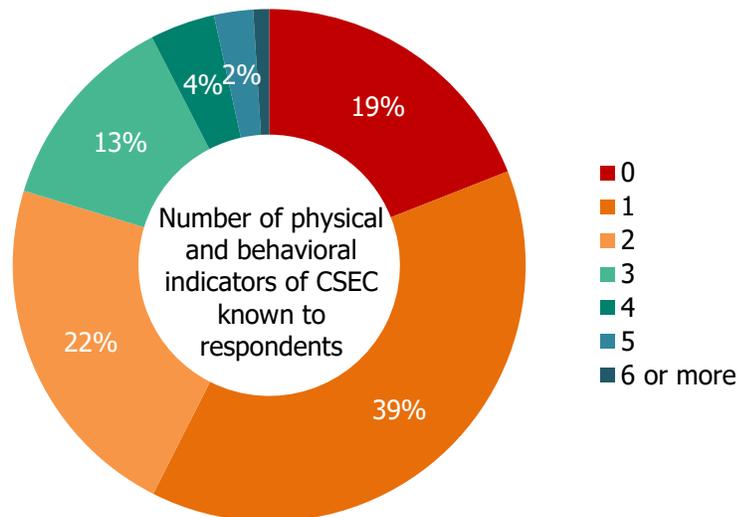
Across all three surveys, around 70 percent of respondents said they would report CSEC via two primary channels: local authorities and the police. In addition, a large share of household and community leader respondents highlighted Nyumba Kumi as another major channel for reporting CSEC (37 and 47 percent, respectively). In contrast, head teachers considered themselves to be a key resource for reporting (68 percent) if people become aware of CSEC in their community. Notably, although the Department of Children Services, the Child Protection Committee, and Childline Kenya are designed to address reports of child sexual abuse, very few respondents were aware of these reporting channels at baseline.

In terms of respondents' knowledge of government bodies charged with CSEC monitoring and prevention, the National Police Service and local administrations continued to be the primary sources for handling child abuse. Over one-fifth of household respondents were unaware of proper government agencies responsible for addressing CSEC. Head teachers and community leaders also mentioned the Child Protection Centre as an important institution offering services and support for CSEC victims (22 and 35 percent, respectively). Furthermore, head teachers identified the Ministry of Education as another key stakeholder in CSEC monitoring and prevention (60 percent).

---

[26] All respondents were provided with the following formal definition of CSEC before such questions were administered: "CSEC occurs when any person under 18 does sexual things in exchange for money or things worth money, like a place to stay, food, or gifts. The money or goods/services can be received by the minor or by someone else. However, CSEC does not require there to be a third party like a pimp or trafficker."

HOUSEHOLD ATTITUDES TOWARDS CSEC

As shown in Figure 8, beliefs on social norms related to CSEC show that at baseline, the majority of households are opposed to CSEC, support its criminalization, and advocate for programs and policies that help those in the sex trade find better opportunities. It is worth noting that minors' education is still widely valued by respondents. An overwhelming majority of people disagree that minors who drop out of school will be financially better off by getting married (97 percent) or engaging in sex tourism (95 percent). Over 90 percent of respondents felt that persons in the sex trade should be given alternative ways to earn a living and there was little variation in responses if the question was asked about men, women, boys, or girls. Still, a minority (6 percent) feel that having sex for money is an acceptable way for children to support their families, with 14 percent saying they believe children are "lucky" if they can earn money catering to sex tourists, perhaps owing to perceptions that they can earn more money in the sex trade than in other available occupations.

Despite this majority opposition to CSEC, attitudes towards victims suggest widely held views that they bear responsibility for their involvement in the sex trade. Of note, 90 percent of respondents believe that CSEC victims are both behaving immorally (a figure that was slightly higher for boys who have sex with men) and should be arrested for accepting sex for money. In terms of whether or not minors are capable of consenting to sex for money, respondents were split, with 53 percent believing they are incapable of consenting and the other 47 percent believing they are freely consenting. Similarly, one-third of respondents believe that minors in the sex trade are free to exit whenever they want and only two percent cited deception by a trafficker or pimp as a push factor that drives children into CSEC.

Figure 8: Household Beliefs and Attitudes toward CSEC and Persons in the Commercial Sex Industry

	Strongly Agree	Agree	Disagree	Strongly Disagree
Minors that cater to sex tourists are lucky to be able to earn money this way.	6%	8%	18%	69%
Having sex for money is an acceptable way for minors to help support their…			21%	74%
Child sex tourism should continue because it is good for the local economy.			21%	74%
Men who buy sex from minors can avoid getting HIV/AIDS.			19%	73%
Sex with a virgin can cure HIV/AIDS.			14%	83%
Girls that have sex for money should be given alternative ways to earn a living.	66%	26%		
Women that have sex for money should be given alternative ways to earn a living.	68%	26%		
Boys that have sex for money should be given alternative ways to earn a living.	66%	25%		
Men that have sex for money should be given alternative ways to earn a living.	64%	28%		
Minors who drop out of school to get married will be better off financially.			23%	74%
Minors who drop out of school to serve sex tourists will be better off financially.			24%	70%
Foreign tourists who pay to have sex with minors in Kenya should be arrested.	82%	16%		
Kenyans who pay to have sex with minors should be arrested.	82%	17%		
Any minor that accepts money for sex should be arrested.	65%	25%	7%	
Minor girls that have sex for money are acting immorally.	63%	25%	7%	
Minor boys that have sex with women for money are acting immorally.	62%	26%	7%	
Minor boys that have sex with men for money are acting immorally.	67%	23%		
Minors who have exited the sex industry are worthy of kindness and respect.	66%	31%		
Most minors in the sex industry are free to enter or exit the trade whenever they…	12%	22%	33%	33%
Minors are incapable of consenting to having sex for money.	27%	26%	25%	22%

38

Figure 9 shows households' beliefs on other risk factors that make children vulnerable to CSEC. The most commonly cited push factors were economic in nature: poverty (86 percent) and lack of job opportunities (26 percent) were the top two responses. Push factors related to home life were also common, including abandonment (23 percent), parental neglect (21 percent), and death of parents or guardian (13 percent).

Figure 9: Risk Factors that Make Children Vulnerable to CSEC (Household Survey)
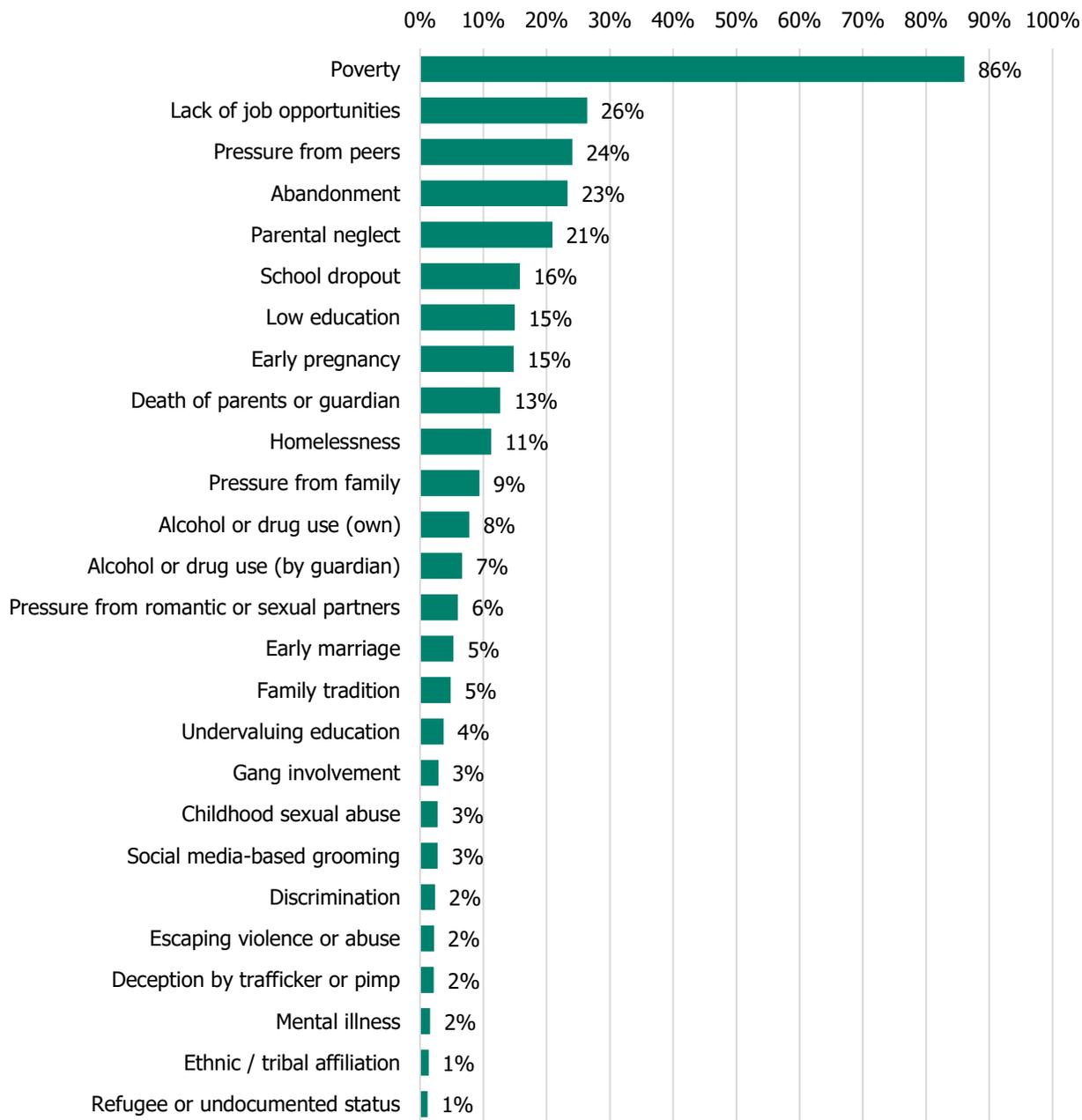
Ninety-four percent of household respondents believe that exchanging sex for money negatively impacts a minor's well-being. The most commonly cited negative impacts were STIs including HIV/AIDS (87 percent), dropping out of school (53 percent), and unwanted or early pregnancy (51 percent). However, few respondents cited negative psychosocial effects, such as mental health issues (15 percent), shame/guilt (13 percent), or substance abuse (8 percent). Lack of awareness about the psychosocial factors that make children vulnerable to CSEC is further evidenced by the fact that less than three percent cited childhood sexual abuse, escaping abuse/violence, and/or mental illness as push factors that drive children into CSEC.

Figure 10: Ways in which CSEC Negatively Impacts Minors' Well-Being (Household Survey)
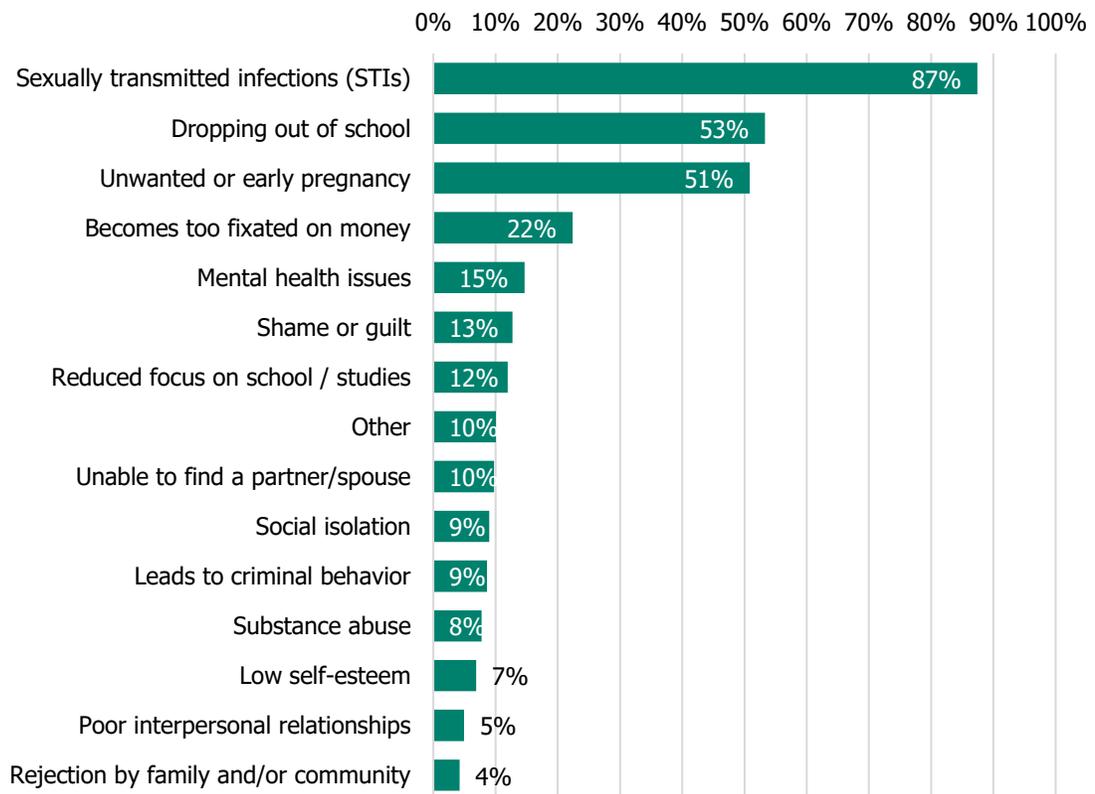
COMMUNITY PRACTICES IN CSEC REPORTING AND PREVENTION

Thirty percent of community leaders reported that they were aware of actual cases of CSEC happening in their village in the past 12 months. As shown in Figure 11, a majority of them obtained this information in their capacity as community leader (43 percent) or word of mouth (52 percent). They estimated that about 84 percent of these CSEC cases had been reported to local authorities or service providers. Such cases were predominantly reported to the police (65 percent) and/or local authorities (50 percent).

Figure 11: Sources of Information on Known CSEC Cases in the Community (Community Leader Survey)
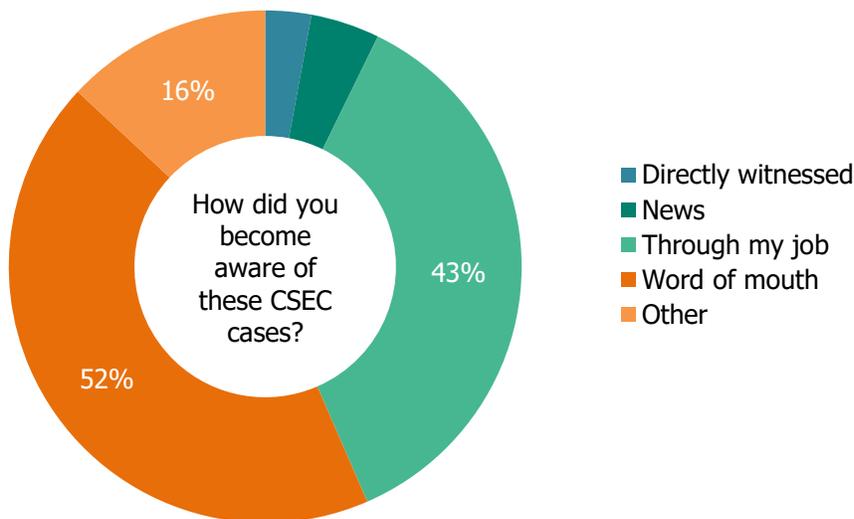
Sixty-seven percent of community leaders said they verified that the reports were captured by the government's Child Protect Information Management System ("CPIMS") at the Department of Children's Services. Only seven percent of community leaders considered community-based organizations (CBOs), faith-based organizations (FBOs), or NGOs as appropriate entities for reporting known CSEC cases, and no specific CBOs or FBOs were mentioned during the interviews; however, this is likely owing to the fact that CBOs typically refer people to official reporting channels rather than manage cases directly.

Community leaders estimated that while 45 percent of their community members knew how to report CSEC cases, only 36 percent would actually do so. According to them, the most important factors that prevented people from reporting known CSEC cases include: 1) fear of retaliation by the victims' family members (43 percent); 2) low expectation of positive outcomes of their action (39 percent); and 3) the propensity of victims' families to cover up or settle the case quietly to avoid shame (31 percent).

In contrast, household members themselves show a high willingness to report CSEC, with 91 percent stating they would report known cases to authorities if they became aware of them. For the nine percent of household respondents who would not report known CSEC cases, the most commonly cited reasons for not doing so include fear of retaliation by the local authorities (43 percent), fear of retaliation by the family of the victims (28 percent), feel it's not their business to report (27 percent), or they don't think anything would come of the report (11 percent). Forty-four percent of households also stated they would intervene in other ways, such as telling the child's parent or guardian (45 percent), giving the child advice on how to seek help (38 percent), comforting the child (30 percent), gathering information to aid in an investigation (14 percent), or confronting the perpetrator (14 percent). For open-ended/other responses, six respondents said they would actually beat or cane the child victim; in contrast, only three said they would physically harm the perpetrator.

Figure 12: Reasons Community Members Would Not Report Known CSEC Cases (Community Leader Survey)
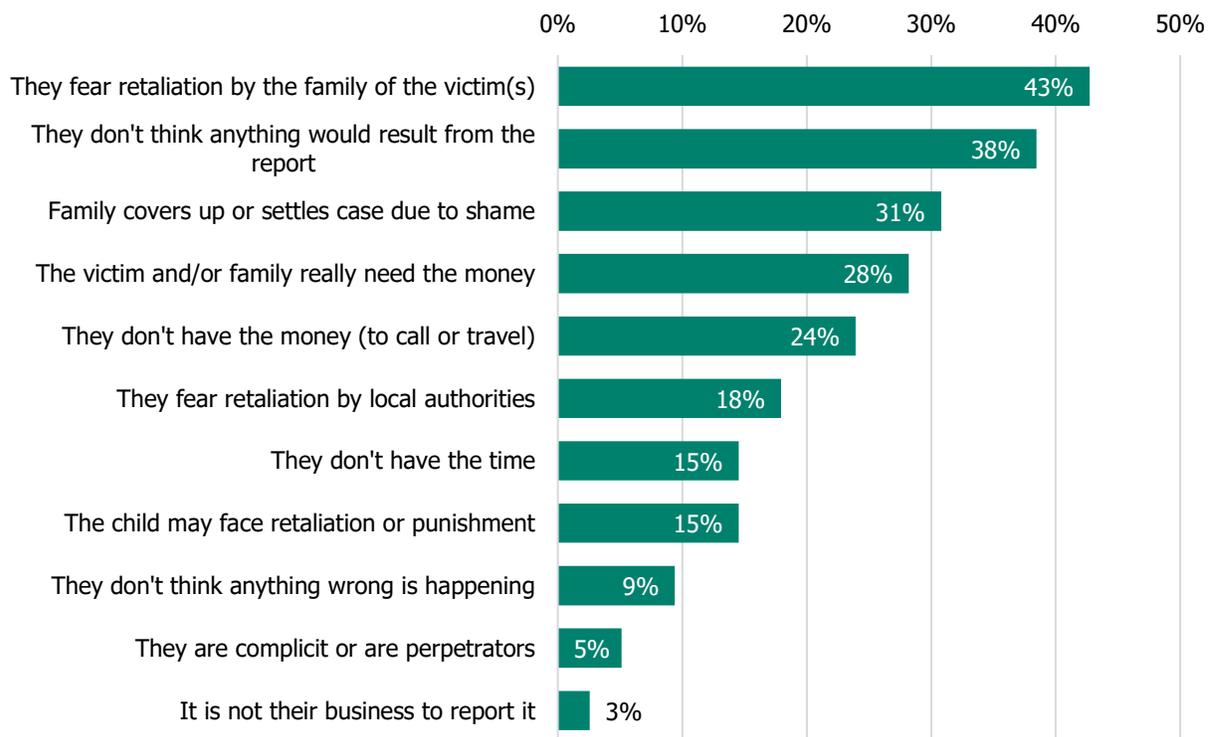
In the school setting, head teachers reported attending an average of 1.5 trainings on identifying and reporting CSEC cases over the past 12 months. Forty-six percent of head teachers interviewed said that there were CSEC victims or survivors enrolled in their school today, and 35 percent of these victims/survivors were currently receiving educational support at school from the Ministry of Education, FIDA-Kenya, Kesho Kenya, Wasichana Wote Wafaulu, and schoolteachers. Types of support reported included learning materials and supplies (56 percent), school fees (33 percent), psychosocial support or counselling (22 percent), cash transfers (11 percent), and food (11 percent).

Head teachers became aware of these CSEC cases primarily through word of mouth (77 percent) or because someone reported it to them (42 percent). Among all CSEC cases known to head teachers, they estimated that 70 percent were reported to the authorities and service providers. Police (68 percent), local authorities (47 percent), schoolteachers (37 percent), and Child Protection Committee (21 percent) are the main reporting and referral channels. Still, almost no respondents mentioned specific CBOs, FBOs, or other service entities. Only one Head Teacher pointed out an NGO named "BABA watoto" as a place where they referred CSEC cases. Fifty percent of head teachers who reported these CSEC cases said that they verified that the reports were actually captured by CPIMS.

The head teachers estimated 36 percent of pupils at their school knew how to report CSEC cases, but only 20 percent of them would actually report a known case. The most mentioned obstacles included fears of retaliation by victims' families (46 percent), low expectations of positive outcomes from their report (30 percent), being afraid the victim would face retaliation

42

or punishment (30 percent), and not having money to call or travel to make the report (24 percent). The head teachers also provided some other reasons beyond the available response options. Specifically, children who were CSEC victims chose not to report their experience because they felt embarrassed and feared that they might be exposed and stigmatized by others.

Figure 13: Reasons Pupils Would Not Report Known CSEC Cases (Head Teacher Survey)

Reason	Percentage
They fear retaliation by the family of the victim(s)	46%
They don't think anything would result from the report	30%
The child may face retaliation or punishment	30%
They don't have the money (to call or travel)	24%
The victim and/or family really need the money	19%
They fear retaliation by local authorities	14%
They don't think anything wrong is happening	11%
They fear retaliation by pimps or buyers	11%
It is not their business to report it	5%
They don't have the time	3%
They are complicit or are perpetrators	3%

4. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

CSEC is widely viewed as a common problem in Kilifi and Kwale, but one that only affects "other" households. Approximately 90 percent of household respondents said CSEC is common in their county, and believe the majority of victims were born and raised in the community. Despite this, very few households acknowledge their own children as being at-risk: only four percent of households said their child(ren) may have been previously subject to CSEC, and just 22 percent felt their children were vulnerable to future victimization.

While communities are generally opposed to CSEC, victim-blaming is the norm. The majority of households are opposed to CSEC, support its criminalization, and advocate for programs and policies that help victims find better opportunities. Despite this, attitudes towards victims suggest widely held views that they bear responsibility for their involvement in the sex trade. Of note, 90 percent of respondents believe that CSEC victims are both behaving immorally and should be arrested for accepting sex for money. Likewise, one-third of respondents believe that minors in the sex trade are free to exit whenever they want and only two percent cited deception by a trafficker or pimp as a push factor that drives children into CSEC.

Relatedly, there is little sensitivity to or awareness of the negative psychosocial effects CSEC has on victims. While 94 percent of households believe that exchanging sex for money negatively impacts a minor's well-being, reported negative impacts mostly focused on reproductive health and disruptions to schooling. Respondents were more likely to report "fixation with money" as a negative impact than mental health issues.

Over 90 percent of households said they would be willing to report known CSEC cases, however their knowledge of reporting channels is limited, and mainly focused on local authorities and the police. Very few mentioned other channels such as the Department of Children Services, the Child Protection Committee, and Childline Kenya. Notably, there is some evidence that households won't report known CSEC cases due to fear of retaliation by local authorities. Other commonly cited reasons for not reporting include fear of retaliation by the family of the victims (28 percent), feeling that it's not their business to report (27 percent), or thinking nothing would come of the report (11 percent).

RECOMMENDATIONS

Sensitize families to CSEC risk factors and the importance of monitoring vulnerability among children in the household. Low knowledge of common physical, social, and behavioral risk factors combined with the widespread view that CSEC only affects other households suggests a strong need for sensitization on monitoring CSEC vulnerability at the household level. Program implementers should therefore seek opportunities to integrate direct advocacy with parents/guardians into their existing programming.

Help community members see CSEC victims/survivors as children needing care and protection rather than criminals. Data from the prevalence component of this study— including data on the age of entry into the sex trade and PTSD rates among victims/survivors— could be disseminated to the public alongside information on the negative psychosocial effects

CSEC. Educating the public on the negative effects of CSEC may help community members and policymakers become more sensitized towards victims, and therefore more proactive agents of change.

Educate community members on CSEC reporting channels other than police and local authorities. Of particular note, only three percent of respondents knew of Childline Kenya (116), a toll-free, 24-hour helpline established by the Department of Children Services to facilitate the reporting of child abuse. Childline offers an anonymous reporting pathway which may make community members less fearful of retaliation, particularly from local authorities. At the same time, there is a need to build trust and trustworthiness of police and local institutions. In parallel, helping community members understand the laws and penalties associated with CSEC may encourage reporting and discourage the sexual exploitation of children.

ANNEXES

ANNEX 1: SAMPLING WEIGHTS

In order to ensure findings are representative of the treatment sampling frame and matched comparison frame, weights were constructed for each of the three stages of sampling including: sampling of census enumeration areas (EAs) within the strata described in Table 2 (stage 1), sampling of households within the selected EAs (stage 2), and sampling of individuals within the selected households (stage 3).

Treatment strata were at the *location* level and included Mtwapa urban, Mtwapa rural, Malindi urban, Malindi rural, Watamu urban, Watamu rural, Lunga Lunga urban, Lunga Lunga rural, Diani urban, and Diani rural. Comparison strata were pooled at the *division* level and included Kikambala urban (Junju), Kikambala rural (Junju and Mavueni), Malindi urban (Gedi), Malindi rural (Ganda, Gedi, and Goshi), Lunga Lunga rural (Dzombo, Kasemeni, Kikoneni, Mwena, Mwereni, and Vanga), and Diani rural (Kinodo).[27]

- The first-level weight (w_1) was based on the number of EAs within the stratum, and was calculated as $w_1 = \frac{N_s}{n_s}$ where N_s is the total number of EAs in stratum s and n_s is the number of sampled EAs in stratum s.

- The second-level weight (w_2) was based on the number of households within the sampled EA, and was calculated as $w_2 = \frac{H_k}{h_k}$ where H_k is the total number of households in EA k and h_k is the number of sampled households in EA k (typically eight).

- The third-level weight (w_3) was calculated as $w_3 = R_i$, where R_i is the total number of adult members of household i.

The final sampling weight for individual i was the product of these three weights, i.e., $w_i = w_1 * w_2 * w_3$. For household-level data analysis, w_i was also multiplied by the IPTW weight described in ANNEX 2: INVERSE PROBABILITY OF TREATMENT WEIGHTING (IPTW). Weights were applied to the dataset as probability weights, or pweights, using Stata 15/SE's set of survey commands.

---

[27] Locations included in the comparison frame are in parentheses. It is important to note that divisions are at a higher administrative level than locations; as such, treatment locations within comparison divisions are excluded from the comparison strata.

ANNEX 2: INVERSE PROBABILITY OF TREATMENT WEIGHTING (IPTW)

To generate and assess IPTW weights, we first employed the logistic regression model $Ln\left(\frac{T_s}{1-T_s}\right) = \beta_0 + \beta_1 X_{is} + \beta_2 X_s + \ni$, where T_s is equal to one if enumeration area s is in the treatment group (and equal to zero if in the comparison group), X_{is} is a vector of time invariant covariates for respondent i in enumeration area s, X_s is a vector of baseline covariate means for sampled households in enumeration area s, and $\ni$ is the error term. The probability of selection into the treatment group is predicted using a postestimation command, which calculates propensity score p that is in turn used to calculate the IPTW weight. For treatment units, the IPTW weight is given by $\frac{1}{p}$ while for comparison units the IPTW weight is given by $\frac{1}{(1-p)}$.

To select the covariates to include in X_{is} and X_s, we tested several strategies with the goal of optimizing balance between treatment and comparison groups at baseline. The first step involved purposefully selecting variables that the research team hypothesized would predict selection into treatment. At the individual level, these included years lived in the community, whether or not the respondent has a disability, the number of dwelling units and rooms per household member, the number of household members, age, and gender. At the EA-level, we calculated mean scores for several covariates, including binary measures of attitudes toward CSEC and knowledge of laws and reporting channels, as well as proxies for socio-economic status including the mean PPI score for the EA.[28]

Balance tables were produced for three separate models including a model without any IPTW weights applied (model 1), a model with all selected covariates included in the propensity score and IPTW weight generation (model 2), and a model with only statistically robust predictors included in the propensity score and IPTW weight generation (model 3). Model 3 utilized stepwise regression analysis to limit the covariates to those that robustly predicted selection into treatment. This involved first running bivariate models for each of the selected covariates to identify those which significantly predicted selection into treatment, then iteratively building up the model such that only statistically significant predictors were retained.

Balance was assessed by examining the p-values for differences in means between treatment and comparison groups for 40 different covariates, as defined in Table 11. To correct for multiple hypothesis testing, the p-value threshold for significance was adjusted downward using Bonferroni correction. The Bonferroni corrected p-value is given by $\frac{\alpha}{T}$ where α is the desired p-value threshold (in our case, the conventional 0.05) and T is the number of statistical hypothesis tests performed (40).

Using this adjusted p-value threshold of 0.00125, only PPI Score under model 1 is statistically significantly different between treatment and comparison groups, however nine other variables are marginally significant at p<0.05. Under model 2, which uses all predictors regardless of their statistical relationship to treatment, 11 variables are marginally significant at p<0.05.

---

[28] Because the sampled EAs will be revisited at endline, EA-level variables used to generate the IPTW weights at baseline can also be used at endline (and can thus be considered "time invariant" for the purposes of this study). Because households will be re-sampled at endline, however, factors expected to be influenced by the program cannot be included in the IPTW model.

Balance is optimized under model 3, where only seven of 40 variables are marginally significant at p<0.05. As such, the final IPTW weights were generated using model 3 and multiplied by w_i to produce the final weight for analysis.[29]

---

[29] In the final IPTW model X_{is} includes *roompp* while X_s includes EA-level baseline means for *a_minfree*, *a_carrest*, *PPIScore*, and *p_commpart.* For endline observations, X_s will be retained in the IPTW weight calculation while *roompp* will be calculated using observed endline values (see Table 12 for variable definitions).

Table 11: Baseline Balance Tables with and without IPTW Weights Applied

	Model 1				Model 2				Model 3			
Variable	Comp	Treat	Diff	P-value	Comp	Treat	Diff	P-value	Comp	Treat	Diff	P-value
duration_yr	29.03	25.11	-3.92	0.099	27.64	25.47	-2.17	0.538	28.36	25.71	-2.65	0.240
disability	0.17	0.09	-0.08	0.034	0.11	0.10	-0.01	0.809	0.12	0.10	-0.03	0.434
dwellingunitpp	0.36	0.34	-0.03	0.149	0.36	0.34	-0.02	0.340	0.34	0.34	0.00	0.967
roompp	0.84	0.72	-0.12	0.065	0.87	0.72	-0.15	0.026	0.84	0.72	-0.12	0.127
child_count	3.79	2.64	-1.15	0.002	3.69	2.74	-0.94	0.003	3.45	2.71	-0.74	0.008
hhnum	6.48	5.56	-0.92	0.004	6.56	5.61	-0.94	0.001	6.23	5.65	-0.58	0.015
a_cseclucky	0.16	0.11	-0.06	0.108	0.16	0.11	-0.05	0.042	0.16	0.11	-0.06	0.028
a_hivavoid	0.09	0.07	-0.03	0.504	0.15	0.06	-0.09	0.286	0.08	0.07	-0.01	0.715
a_hivcure	0.03	0.02	-0.01	0.217	0.03	0.02	-0.01	0.587	0.04	0.02	-0.02	0.270
a_galtliv	0.91	0.93	0.02	0.557	0.93	0.93	0.00	0.879	0.91	0.93	0.02	0.472
a_waltliv	0.94	0.95	0.00	0.888	0.95	0.95	-0.01	0.701	0.94	0.95	0.01	0.745
a_baltliv	0.89	0.93	0.04	0.201	0.91	0.93	0.02	0.365	0.89	0.93	0.04	0.128
a_maltliv	0.92	0.92	0.00	0.880	0.94	0.92	-0.01	0.456	0.93	0.92	0.00	0.917
a_marrybo	0.02	0.05	0.03	0.004	0.02	0.04	0.03	0.003	0.02	0.05	0.03	0.002
a_dropbo	0.04	0.07	0.03	0.073	0.03	0.07	0.04	0.006	0.04	0.07	0.03	0.046
a_tarrest	0.98	0.98	0.00	0.925	0.99	0.98	-0.01	0.340	0.99	0.98	-0.01	0.365
a_aarrest	0.99	0.98	-0.01	0.439	0.99	0.98	0.00	0.670	0.98	0.98	0.00	0.780
a_gimmoral	0.89	0.88	-0.01	0.889	0.82	0.89	0.07	0.355	0.88	0.88	0.00	0.951
a_bimmoral	0.89	0.88	-0.01	0.860	0.85	0.89	0.04	0.389	0.88	0.88	0.00	0.937
a_himmoral	0.90	0.90	0.00	0.931	0.87	0.90	0.03	0.544	0.90	0.90	-0.01	0.766
a_bmoral	0.05	0.03	-0.01	0.628	0.07	0.03	-0.04	0.355	0.08	0.03	-0.05	0.311
a_goodecon	0.04	0.04	-0.01	0.740	0.08	0.04	-0.04	0.254	0.06	0.04	-0.02	0.415
a_minfree	0.30	0.38	0.08	0.042	0.26	0.37	0.11	0.038	0.31	0.37	0.06	0.133

	Model 1				Model 2				Model 3			
Variable	Comp	Treat	Diff	P-value	Comp	Treat	Diff	P-value	Comp	Treat	Diff	P-value
a_consent	0.51	0.56	0.06	0.234	0.53	0.57	0.04	0.565	0.50	0.56	0.06	0.263
a_carrest	0.87	0.95	0.08	0.014	0.88	0.94	0.07	0.184	0.85	0.94	0.09	0.056
a_kind	0.98	0.98	0.00	0.949	0.98	0.98	-0.01	0.670	0.97	0.98	0.01	0.714
a_wellbeing	0.96	0.93	-0.03	0.172	0.95	0.94	-0.02	0.466	0.95	0.93	-0.01	0.627
PPIScore	49.45	63.53	14.08	0.000	54.55	62.13	7.58	0.076	56.92	61.81	4.89	0.225
a_adultresp	14.66	16.59	1.93	0.018	15.63	16.20	0.57	0.482	14.80	16.49	1.68	0.015
k_csecterm	0.57	0.49	-0.08	0.329	0.63	0.48	-0.15	0.040	0.56	0.49	-0.08	0.293
k_lawsaware	0.40	0.40	-0.01	0.889	0.46	0.40	-0.07	0.174	0.42	0.40	-0.03	0.613
p_selfrep	0.89	0.93	0.03	0.366	0.83	0.93	0.09	0.084	0.89	0.93	0.03	0.309
p_intervene	0.37	0.49	0.12	0.009	0.36	0.47	0.11	0.059	0.41	0.48	0.07	0.088
p_caseaware	0.30	0.26	-0.04	0.287	0.33	0.25	-0.09	0.035	0.30	0.26	-0.04	0.241
p_commpart	0.30	0.18	-0.11	0.010	0.29	0.19	-0.10	0.036	0.31	0.19	-0.12	0.019
p_approach	0.14	0.11	-0.03	0.526	0.13	0.10	-0.03	0.476	0.15	0.11	-0.04	0.505
p_othertalk	0.11	0.13	0.02	0.541	0.12	0.12	0.01	0.767	0.11	0.14	0.02	0.491
p_advocacy	0.28	0.24	-0.05	0.225	0.31	0.22	-0.08	0.049	0.31	0.24	-0.08	0.111
p_support	0.12	0.08	-0.04	0.437	0.09	0.07	-0.03	0.500	0.11	0.08	-0.04	0.383

Table 12: Names and Definitions for Variables Used in Balance Checking

Variable	Type	Definition
duration_yr	Continuous	Number of years lived in the community
disability	Binary	Reports having disability including difficulties in seeing, hearing, speaking, walking, climbing steps, washing, dressing, remembering, or concentrating
dwellingunitpp	Continuous	Number of household dwelling units per household member
roompp	Continuous	Number of habitable rooms per household member
child_count	Continuous	Number of children living in household
hhnum	Continuous	Number of household members
a_cseclucky	Binary	Agrees with statement "Minors that cater to sex tourists are lucky to be able to earn money this way"
a_hivavoid	Binary	Agrees with statement "Men who buy sex from minors can avoid getting HIV/AIDS."
a_hivcure	Binary	Agrees with statement "Sex with a virgin can cure HIV/AIDS.
a_galtliv	Binary	Agrees with statement "Girls that have sex for money should be given alternative ways to earn a living."
a_waltliv	Binary	Agrees with statement "Women that have sex for money should be given alternative ways to earn a living."
a_baltliv	Binary	Agrees with statement "Boys that have sex for money should be given alternative ways to earn a living."
a_maltliv	Binary	Agrees with statement "Men that have sex for money should be given alternative ways to earn a living."
a_marrybo	Binary	Agrees with statement "Minors who drop out of school to get married will be better off financially than those who remain in school."
a_dropbo	Binary	Agrees with statement "Minors who drop out of school to serve sex tourists will be better off financially than those who remain in school."
a_tarrest	Binary	Agrees with statement "Foreign tourists who pay to have sex with minors in Kenya should be arrested."
a_aarrest	Binary	Agrees with statement "Kenyans who pay to have sex with minors should be arrested."
a_gimmoral	Binary	Agrees with statement "Minor girls that have sex for money are acting immorally."
a_bimmoral	Binary	Agrees with statement "Minor boys that have sex with women for money are acting immorally."
a_himmoral	Binary	Agrees with statement "Minor boys that have sex with men for money are acting immorally."
a_bmoral	Binary	Agrees with statement "Having sex for money is an acceptable way for minors to help support their families."
a_goodecon	Binary	Agrees with statement "Child sex tourism should continue in ${county} because it is good for the local economy."

51

Variable	Type	Definition
a_minfree	Binary	Agrees with statement "Most minors in the sex industry are free to enter or exit the trade whenever they want."
a_consent	Binary	Agrees with statement "Minors are incapable of consenting to having sex for money."
a_carrest	Binary	Agrees with statement "Any minor that accepts money for sex should be arrested."
a_kind	Binary	Agrees with statement "Minors who have exited the sex industry are worthy of kindness and respect."
a_wellbeing	Binary	Believes that exchanging sex for money negatively impacts a minor's well-being
PPIScore	Continuous	Progress Out of Poverty index score
a_adultresp	Continuous	Age at which respondent believes people ready to take on adult responsibilities
k_csecterm	Binary	Respondent is familiar with the term "commercial sexual exploitation of children" or "CSEC"
k_lawsaware	Binary	Respondent is aware of legislation in Kenya that specifically addresses CSEC
p_selfrep	Binary	If respondent personally became aware of CSEC happening in the community, s/he would report it
p_intervene	Binary	If respondent personally became aware of CSEC happening in the community, s/he would intervene in other ways
p_caseaware	Binary	Respondent knows of actual cases of CSEC in ${sub-county} that occurred in the last 12 months
p_commpart	Binary	Household member(s) participate in community-based structures or groups
p_approach	Binary	Respondent was approached by someone in the past 12 months to talk about CSEC
p_othertalk	Binary	Respondent approached someone in the past 12 months to talk about CSEC
p_advocacy	Binary	Respondent reports having seen or heard advocacy messages related to CSEC in the past 12 months
p_support	Binary	Household received direct support from NGOs, FBOs, or CBOs in the past 12 months

ANNEX 3: FIELD SAMPLING PROTOCOLS

HOUSEHOLDS

Sampling of households was done using systematic random walk. Prior to beginning household sampling, the sampler met the Community Leader to obtain permission to conduct data collection and help orient the sampler to the EA. To select a random starting point for the systematic random walk, the sampler dropped a pebble on the EA map provided by KNBS. Then, s/he asked the Community Leader or a designated community guide to help him/her locate to the household closest to that point.

Once the sampler located the household nearest the random starting point, s/he counted off every sixth household until the primary sample of eight households and an alternate/replacement sample of four households was identified and recorded in an EA tracking sheet. The household nearest to the starting point was the first to be sampled. Then, the sampler spun a bottle or pencil to determine which direction to move in and sampled every sixth household thereafter. The sampler followed a road or a path to identify the next household, being sure to count structures on both sides of the path or road in order. Samplers were instructed to follow all access paths encountered to ensure every household had a possibility of being sampled. If the sampler reached a dead end or the boundary of the EA, s/he was required to turn around and move in the opposite direction, picking up the counting of households once a new household was reached.[30]

For each sampled household, a household roster was completed by the household head or other person knowledgeable about household members' levels of education and recent economic activities. Qualifying respondents for the KAP survey were members of sampled households, aged 18 years and above. In each selected household only one person was interviewed. The KAP respondent was selected using backend programming in the household roster survey form, which displayed a list of eligible respondents randomly ordered at the end of the roster survey. In the event the first respondent was not available at the time of visit, up to three call-backs were made at different timings and days. If the first respondent was still not available, the immediate next person in the randomized roster list was interviewed/tracked.

COMMUNITY LEADERS

The Village Elder most closely associated with the sampled EA was targeted for introductions/arrival procedures and a Community Leader survey. If there was more than one Village Elder associated with the EA, the person with authority over the greatest number of households within the boundary of the EA was interviewed. If the Village Elder was absent, the following were targeted for the Community Leader survey (ordered by priority): Village Administrator, Religious Leader, or Village Chief.

---

[30] If a dwelling contained multiple households, the sampler ordered the households so they could be counted off sequentially. Such households were ordered according to the birth month and day of the household head, and counted off accordingly. For large apartment buildings, the sampler counted off households starting from the top floor and moved systematically through the building.

SCHOOLS

The school targeted for the Head Teacher survey was the public primary school within or closest to the EA. If there were multiple public primary schools that were equidistant or within the bounds of the EA, the school serving the largest number of children in the EA was selected. Within the sampled public primary school, the Head Teacher was targeted for the school interview. If there was only one Head Teacher at the school, s/he was automatically selected. If there was more than one (rare), the Head Teacher responsible for primary grades was selected. If the Head Teacher was not available, the Deputy or teacher in charge was selected.

ANNEX 4: DATA QUALITY ASSURANCE PROCEDURES AND PROTOCOLS

SUPERVISOR ACCOMPANIMENTS

The purpose of an accompaniment is to observe and rate the enumerator's conduct, professionalism, and proper administration of the questionnaire. Supervisors conducted accompaniments for a subset of interviews, stratified by enumerator. At the conclusion of each observation, supervisors filled out an electronic accompaniment form which rates the enumerator's conduct on a number of dimensions, including proper administration of informed consent, correct reading of questions, appropriate use of probing techniques, neutrality and objectivity, professionalism, and survey pacing. These electronic accompaniment forms were transmitted to NORC's central server at the end of each day of data collection.

Figure 14: Supervisor Accompaniment Form Results
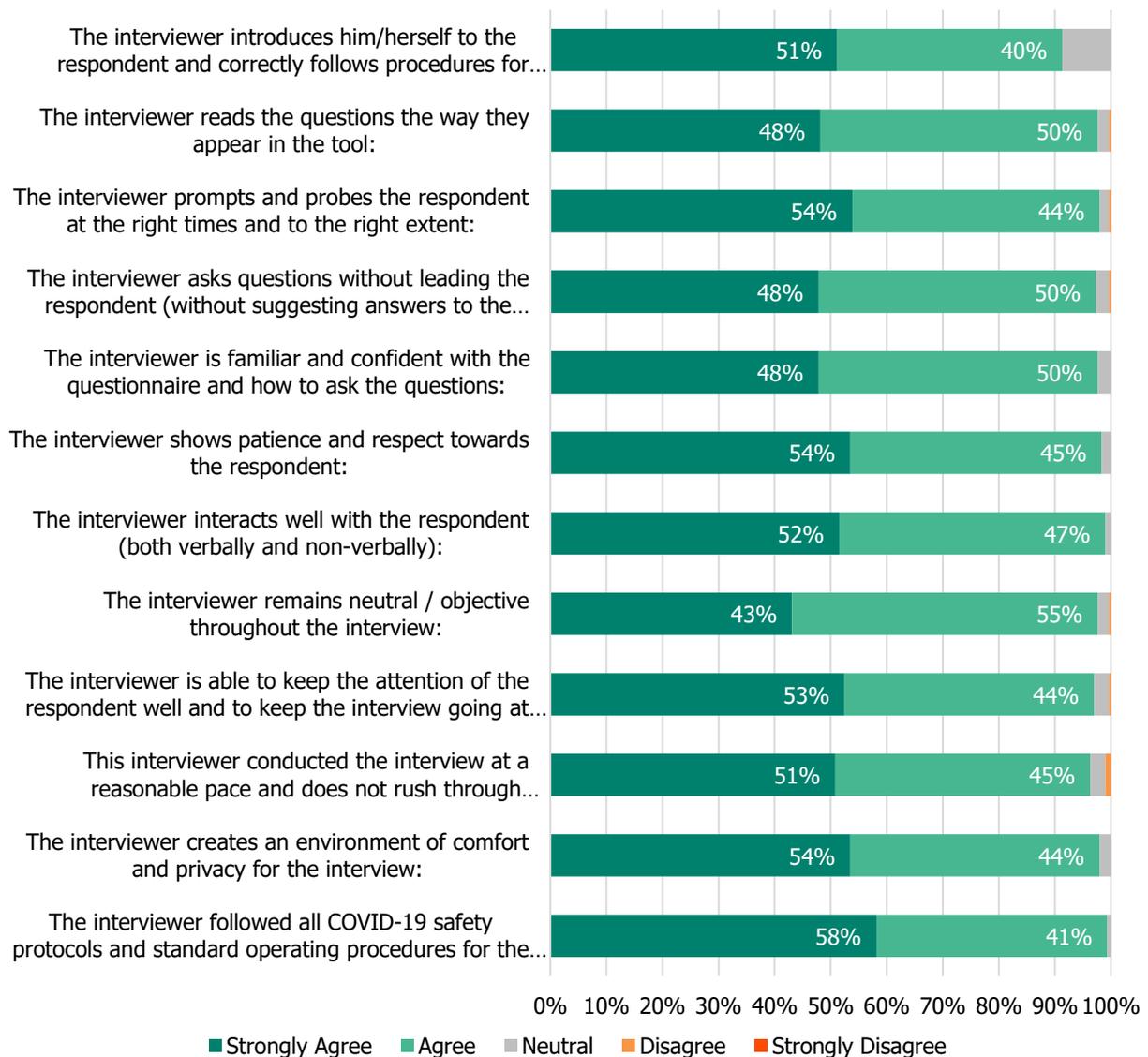
Overall, 299 accompaniments were completed including 91 roster accompaniments, 198 KAP survey accompaniments, and 10 Community Leader Survey accompaniments, which represent four percent, nine percent, and five percent of the sample, respectively. As shown in Figure 14, over 90 percent of supervisors rated enumerator performance highly across the assessed domains. In the few instances where supervisors flagged performance issues, they provided immediate coaching and remediation to the enumerator and in all cases, the performance issues improved during subsequent observations.

QCO DATA AUDITS OR "BACK CHECKS"

Back checks involve re-visiting or calling respondents several days after the original data collection effort to verify a subset of survey questions as well as ensure enumerators adhered to project-specific protocols related to sampling, informed consent, and professional conduct. During data collection, a subset of households were randomly selected by NORC, stratified by enumerator, for a call-back or revisit by the QCO who re-interviewed the respondent and ensured that the field team followed all protocols and sampling procedures. In addition, the respondent was re-asked a subset of questions from the survey to verify the stability of responses over time as well as ensure the forms were completed correctly by enumerators. Incoming back check data was checked against original survey data at regular intervals so that any issues related to data falsification, inadequate training, and measurement error could be quickly remedied.

Overall, 74 back check interviews were successfully conducted (four percent of the total sample), the majority of which confirmed data collection procedures were correctly followed with only minor discrepancies in the re-administered survey questions, as reported in Table 13 below.[31]

Table 13: Back Check Analysis Results for Key Variables

Variable	Identical	Minor Discrepancy	Major Discrepancy
Age	60%	31%	9%
Years in community	44%	21%	35%
Children in household	62%	18%	21%
Ethnicity	94%	--	6%
Household has thermos	88%	--	12%
Household received support from NGO(s)	93%	--	7%

Major discrepancies were immediately reported to Kantar for investigation, which determined that several enumerators had indeed falsified data over the course of field work. These enumerators were immediately terminated from the study and call backs were made for 100

---

[31] For age and years in community, a minor discrepancy is defined as 1-2 years off from the initial reported value whereas a major discrepancy is considered 3 or more years. This is owing to the fact that many Kenyans do not know their precise age or years living in the community and thus estimates may vary over time. For the count of children in the household, a minor discrepancy is considered 1 child off from the initial reported value whereas a major discrepancy is two or more. It is important to note that for all variables, back check discrepancies may be due to time lapse and changes in household circumstances after the initial survey was conducted.

percent of their completed interviews. Ultimately, 181 surveys were determined by Kantar to be invalid and were therefore dropped from the study. Kantar attempted to re-interview all 181 of these households, and 127 surveys (or 70 percent) were successfully re-interviewed. Table 14 below outlines the reasons why the 54 of the 181 interviews could not be completed.

Table 14: Results of Attempts to Re-Collect Falsified Data

Variable	Count	Percent
Successfully re-interviewed	127	70%
Not available at the household for interviewing	34	19%
Respondent relocated	2	1%
Respondent unwell (sick)	1	1%
Respondent said they would call the interviewer when available	2	1%
Respondent travelled away from village	7	4%
spondent declined to be interviewed	8	4%

DATA QUALITY REVIEWS

Data quality reviews (DQRs) were conducted by NORC's data management team at regular intervals throughout the course of data collection. The purpose of a DQR is to proactively identify and remedy issues related to survey programming, question clarity, and enumerator error/performance. Specific issues that were checked during DQRs are summarized below.

Table 15: Data Quality Review Descriptions

Data Quality Review Type	Description
Date/time verification	This check ensures that the start and end times of the surveys are logical (i.e., sequential and within the field period) and that the survey duration is not abnormally short or long.
Form completeness	This check determines whether any required variables in the form are missing.
ID verification	This check flags any unresolved duplicate IDs as well as cross-verifies components of manually entered IDs.
Speed violations	This check flags longer/more complex questions for which enumerators advance in the survey form more quickly than would be expected.
Soft check suppressions	An alternative to programming constraints, "soft checks" serve to alert enumerators to potential errors in either data entry or question interpretation (either by the enumerator or the respondent). Soft checks consist of a simple "select one" question immediately following the question of concern, where the enumerator is alerted to a possible error (using relevancy rules) and required to either go back in the form and edit the entry or select "continue" to advance in the form. This check summarizes all soft check suppressions alongside the recorded values.

Data Quality Review Type	Description
"Don't know / no response" frequencies	This check flags variables for which the don't know/no response rate is five percent or more as well as cases where a given enumerator has at least five don't know/refused responses.
Open-ended response review	This check involves reviewing all open-ended responses (including "other: specify" entries and enumerator notes).
Outlier review	This check flags continuous numerical variables that are more than two standard deviations from the mean value.
Back checks	Back check analysis assesses discrepancies between original and back check data.
Accompaniment form review	Supervisor accompaniment forms that flag enumerator performance issues are reviewed.

Following each round of DQR, the assessment team flagged areas of concern to Kantar in a cloud-based DQR log. Each issue was flagged based on urgency; a summary of urgency levels, illustrative issues, and required response times is below.

Table 16: DQR Levels of Urgency

Urgency level	Examples of issues	Response time
Most Urgent	Suspected data falsification, enumerating incorrect sites or respondents, using incorrect versions of tools	<24 hours
High	Missing form submissions, excessive speed violations, excess replacements, not following ID protocols	48 hours
Medium	Confirming outliers, below target accompaniments	2-3 days
Low	Simple cleaning tasks that don't require enumerator recall	1 week

Issues flagged in the DQR log as "most urgent" (e.g., possible data falsification) were expected to be resolved in less than 24 hours whereas issues with less urgency (e.g., basic cleaning tasks that don't require enumerator recall) could be resolved within a few days. Over the course of data collection, NORC flagged 128 DQR items to Kantar's management team—the majority of which were related to ID duplicates/discrepancies, variable outliers, and high frequency of "don't know" responses for certain enumerators and questions—all of which were addressed to NORC's satisfaction by the conclusion of field work.

DAILY DEBRIEFS

At the end of each day of data collection, QCOs, Supervisors, and other field monitors gathered together with the team of enumerators and facilitated an active discussion on how things went that day, with particular attention to challenges faced in completing that day's work. A Daily Debrief Guide was developed to assist field monitors in facilitating debriefs and included a number of questions and probes to help elicit important information from data collection team

members. During this time, Supervisors also validated the EA tracking sheet and collect any additional information needed to ensure its completeness.

ANNEX 5: DATA COLLECTION INSTRUMENTS

See attachment "Annex 5 – Data Collection Instruments.zip"