

COMMERCIAL
SEXUAL
EXPLOITATION OF
CHILDREN IN
CAMBODIA

*A venue-based
application of time-space
sampling to measure
prevalence in Phnom
Penh, Siem Reap and
Sihanoukville*

Study methodology developed with consultation from Dr. Lisa Grace Bersales, Vice President of Planning and Finance, University of the Philippines

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ACRONYMS & ABBREVIATIONS

CWDA	Cambodian Women’s Development Agency
CNP	Cambodian National Police
CSE	Commercial Sex Establishments
CSEC	Commercial Sexual Exploitation of Children
CSW	Commercial Sex Worker
GRO	Guest Relations Officer
IOM	International Organization for Migration
IJM	International Justice Mission
ILO	International Labor Organization
IPEC	International Program for the Elimination of Child Labor
KTV	Karaoke Club
MSM	Men who have sex with men
RDD	Random Digit Dialing
TSS	Time Space Sampling
UN	United Nations
UNICEF	United Nations Children’s Fund
UNTAC	United Nations Transitional Authority of Cambodia

DEFINITIONS

Human Trafficking is defined by the United Nations' (UN) *Protocol to Suppress and Punish Trafficking in Persons, Especially Women and Children* as:

The recruitment, transportation, transfer, harbouring or receipt of persons, and by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation...

Commercial Sexual Exploitation of Children (CSEC) is defined by the *World Congress against Commercial Sexual Exploitation of Children* as a “fundamental violation of human rights and children’s rights. It comprises sexual abuse of a child by the adult and remuneration in cash or in kind or a third person or persons.” (1st World Congress against Commercial Sexual Exploitation of Children, 1996) This includes instances in which sexual exploitation occurs in exchange for protection, lodging, food or other benefits. The United Nations’ *Protocol to Suppress and Punish Trafficking in Persons, Especially Women and Children*, to which Cambodia is a signatory, states that consent is irrelevant when sexual exploitation involves children. Therefore, all children engaged in sexual exploitation involving payments in cash or kind are, by definition, victims of human trafficking (Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, 2000).

Children (or minors) are any persons age 17 or younger, as stated in Article 7 of Cambodia’s *Law on the Suppression of Human Trafficking and Sexual Exploitation*. This report further defines a “young” child as someone age 15 or younger, and a “borderline” child as someone age 16-17.

Stratified random sampling is a sampling strategy that involves dividing the total population into non-overlapping subgroups and then randomly sampling from the subgroups. Each subgroup is referred to as a **stratum**, and two or more subgroups are referred to as **strata**. In this report, each stratum consists of all establishments of a particular type in a given city, while a strata is made up of two or more of these stratum. For example, all massage parlors in Phnom Penh belong to a single strata. Similarly, all commercial sex establishments in Phnom Penh make up the Phnom Penh strata.

EXECUTIVE SUMMARY

This report presents the results of a study to measure the prevalence of commercial sexual exploitation of children (CSEC) in commercial sex establishments in Phnom Penh, Siem Reap and Sihanoukville, Cambodia. The study found a total prevalence across the three target cities of 8.16%. The prevalence of minors identified as being age 15 or younger was 0.75%.

Based on the available historic data, the results of this study suggest that the prevalence of CSEC in commercial sex establishments in Phnom Penh, Siem Reap and Sihanoukville, Cambodia has decreased substantially between 2000 and 2012, with the most notable decrease observed among minors age 15 or younger.

The study's findings are based on data collected from 232 commercial sex establishments in Phnom Penh, Siem Reap and Sihanoukville, Cambodia in November 2012. Sampled establishments were randomly selected from a comprehensive list of 990 suspected commercial sex establishments in the three target cities.

Using undercover data collection techniques, study data collectors identified 1,911 individuals working in commercial sex establishments and available for sex in the target cities. One hundred forty-one of these were identified as minors (age 17 or younger). After analysis, the data indicates that the overall prevalence of commercial sexual exploitation of children (CSEC) in commercial sex establishments (CSEs) in the three target cities is 8.16%.

The prevalence results are presented below:

Table 1 - Prevalence Results by City

<u>City</u>	<u>Borderline Prevalence (age 16-17)</u>	<u>Young Minor Prevalence (age 15 or younger)</u>	<u>Total Prevalence</u>
Phnom Penh	7.66%	0.66%	8.32%
Siem Reap	8.03%	1.18%	9.21%
Sihanoukville	3.49%	0.22%	3.72%
<u>Total</u>	<u>7.41%</u>	<u>0.75%</u>	<u>8.16%</u>

The results of this study reveal the rarity of young minors in exploitation in commercial sex establishments in the target area. Borderline minors continue to be exploited in commercial sex establishments, but with a substantially decreased prevalence than what was documented from 1998-2003. The highest number of minors was identified in establishments frequented by Cambodian nationals and Asian tourists.

INTRODUCTION

Overview of International Justice Mission

International Justice Mission (IJM) is a human rights agency with nearly 20 field offices located around the world. IJM brings rescue to victims of slavery, sexual exploitation and other forms of violent oppression. IJM lawyers, investigators and aftercare professionals work with local officials to

secure immediate victim rescue and aftercare, to prosecute perpetrators and to ensure that public justice systems - law enforcement, public prosecution, judiciary, regulatory agencies and social services - effectively protect the poor.

IJM has been investigating and documenting cases of sex trafficking of women and children in Cambodia since 2000. IJM opened its Cambodia Field Office, based in Phnom Penh, in March of 2004. Since then, IJM’s goal has

been to demonstrably and sustainably reduce the prevalence of CSEC in Phnom Penh, Siem Reap, and Sihanoukville (referred to as the “target areas”) by improving the performance of key Cambodian Public Justice System (PJS) entities. IJM directly intervenes in identified sex trafficking cases by employing a “collaborative casework” model. This model consists of mobilizing teams of lawyers, investigators and social workers to investigate suspected

Table 2 - Cambodia Development Indicators

Cambodia Development Indicators	
Population:	14,305,000 (2011)
Human Development Index (HDI):	0.543 (138 th out of 188 countries) (2012)
Life expectancy at birth:	63.6 years (2011)
Public expenditure on health (% of GDP):	2.6% (2012)
Adult HIV Prevalence:	0.6% (2011)
Population below poverty line:	22.8% (2011)
Transparency International Corruption Perception Index:	22/100 (157 out of 176 ranked) (2012)
Tourist arrivals:	3,584,307 (2012)
% of children below 15:	41.9% (2002)
GDP – per capita:	USD 2,260 (2011)
Adult literacy rate:	77.6% (2012)
Gender Inequality Index:	99 out of 145 ranked (2011)

sex trafficking cases, provide collected evidence to local authorities, advocate for the arrest and prosecution of suspected traffickers, and facilitate the referral of trafficking survivors to organizations that provide assistance for recovery, rehabilitation and reintegration.

CSEC in Cambodia

Cambodia’s recent past is marked by more than thirty years of conflict, including mass genocide by the Khmer Rouge under Pol Pot, occupation by Vietnam and civil war. In 1991 the United Nations Transitional Authority (UNTAC) was deployed to Cambodia in an attempt to stabilize the country. The Human Rights Task Force on Cambodia suggested that the presence of UNTAC’s 20,000 peacekeepers and civilian personnel in Cambodia contributed to a significant expansion of the commercial sex industry. The total number of commercial sex workers in Cambodia in 1991 was estimated at 6,000. By the end of 1992, that estimate rose to more than 20,000 commercial sex workers in Phnom Penh alone (Cambodia, 2001).

While the number of commercial sex workers initially dropped after the departure of UNTAC in early 1993, the absence of a functioning public justice system and increased fear of HIV/AIDS led to an increase in commercial sexual exploitation of children (Cambodia, 2001). In 1999, the International Labor Organization’s International Program for the Elimination of Child Labor (IPEC) reported that “more than 15 percent of prostitutes [in Cambodia] were from 9 to 15 years of age...” (U.S. State Department, 2001). Likewise, in 2001 the International Organization for

Migration (IOM) reported that approximately 3,000 women and girls from southern Vietnam were trafficked into Cambodia each year, with girls younger than 15 years old constituting 15% of this number (U.S. State Department, 2002). In 2000, Cambodia’s Ministry of Planning estimated that 30% of individuals in commercial sex were children (Planning, 2000).

Recent intelligence from IJM investigations suggests that fewer minors, and particularly fewer young minors (those 15 years of age and younger), are available for sexual exploitation in commercial sex establishments in Phnom Penh, Siem Reap and Sihanoukville. However, accurate assessment of CSEC in Cambodia is difficult because children exploited for sex are a “hidden” population due to the increasingly clandestine nature of the crime. This study is an attempt to provide accurate data by systematically identifying, documenting and analyzing current cases of CSEC in the target area. This data will assist IJM, other anti-trafficking NGOs and the Cambodian Government to measure and evaluate the impact of past anti-trafficking efforts as well as to guide future initiatives.

IJM’s Vision: To rescue thousands, protect millions and prove that justice for the poor is possible.™

METHODOLOGY

Overview of Common Methods to Access “Hidden” Populations

A “hidden population” is one for which no sampling frame exists and the identification of participation or membership in the population could be potentially threatening (whether socially, physically or legally) for an individual. Victims of CSEC in Cambodia fall within this definition. In many cases CSEC victims have limited freedom of movement or involvement in traditional social networks due to the circumstances of their victimization, the illegal nature of their activity and/or social stigma.

Several sampling methodologies have been developed in recent years to reach hidden populations.

Random Digit Dialing (RDD): Traditional probability-based research methods such as Random Digit Dialing (RDD) allow inferences to be made regarding the broader population based on collected data. However, probability-based approaches such as RDD only result in sufficient sample sizes under specific conditions, and can be extremely expensive to implement.

Respondent-Driven and Network Sampling: Non-probability based research methods, including respondent-driven sampling or network sampling, are sometimes used to reach hidden populations, particularly among groups such as intravenous drug users (Heckathorn, 1997) and men who have sex with men (MSM) (Carballo-Diéguez A, 2011). The weakness of such sampling methodologies is that study participants are limited to individuals whom current respondents are able or willing to bring into the study. These relationships are often built on trust or dependency between the participants, such as drug dealers who refer their clients but

demand a “cut” of the remuneration for participation in the study (Marpsat & Razafindratsima, 2010).

Institutional and Record Sampling: Institutional or record sampling is also sometimes used to access hidden populations. This methodology involves identifying participants in an institutional setting, or reviewing institutional or government records to identify members of a target population. Because members of a population who enter an institutional setting or come in contact with local governments represent a non-random sample, the data cannot be used to make inferences about the broader population. Individuals who access government services often are not representative of those who do not, which introduces bias. For example, researchers in San Francisco discovered that injection drug users identified in drug treatment centers were half as likely to be infected with HIV/AIDS compared to users not in drug treatment programs (Salganik & Heckathorn, 2003).

Furthermore, as the purpose of this study is to document the prevalence of a crime that has not been reported or investigated, reviewing documents of cases reported within law enforcement agencies, social services or health clinics does not provide an accurate or real-time estimate of the prevalence of CSEC. Even in countries with well-developed public justice systems and social welfare services, such as the United States, review of reported cases often does not provide sufficient prevalence-level data. Lack of infrastructure within national-level systems in developing countries such as Cambodia poses an additional barrier to this method.

Time-Space Sampling (TSS): This methodology involves the identification of a comprehensive list of areas (or locations) that members of the target population congregate, and that, conversely, are not commonly visited by the rest of the general population. In addition to mapping locations, the times at which individuals from the target population visit the mapped areas must also be identified (Marpsat & Razafindratsima, 2010).

Table 3 - Strengths and Limitations of Time-Space Sampling (Raymond, 2007)

<u>Strengths</u>	<u>Limitations</u>
<ul style="list-style-type: none"> Assumed to be random by approximating random cluster sampling 	<ul style="list-style-type: none"> Comprehensive list of “times” and “spaces” can be time-consuming to construct
<ul style="list-style-type: none"> Often efficient for reaching hidden populations 	<ul style="list-style-type: none"> Can be difficult to validate results
<ul style="list-style-type: none"> Makes complete list of all members of a hidden population unnecessary 	<ul style="list-style-type: none"> Biased towards individuals who attend a location or venue; excludes those who rarely or never attend

TSS was developed in the late 1980s and is considered by many researchers to be the standard method for HIV behavior surveillance among MSM populations in the United States (MacKellar, 2007).

One of the key benefits of TSS is that it approximates probability sampling by randomly selecting mapped locations as a proxy for randomly selecting members of the target population. As a true probability sample of hidden populations is typically impossible due to the absence of a complete list of population members, TSS allows inferences to be made regarding the population through the use of a randomized sampling (Raymond, 2007).

Undercover Investigative Approach to Venue-Based Time-Space Sampling

Given the strengths of TSS and IJM's existing knowledge of the locations of commercial sex venues in Phnom Penh, Siem Reap and Sihanoukville, Cambodia, this study utilizes an establishment-based application of time-space sampling to measure the prevalence of CSEC in the target area. Similar methodologies have been used in the past to generate representative samples of location-based, hidden populations such as illegal drug users in the New York City nightlife scene (Jeffrey T. Parsons, Christian Grov, and Brian C. Kelly, 2008) and MSMs (Farzana B. Muhib, et al., 2001).

IJM's study methodology differs from traditional time-space sampling methods as it uses undercover data collection rather than traditional participatory research methodologies. This approach allows IJM to gather accurate information regarding the commercial sexual exploitation of minors, and is an internationally-accepted strategy when attempting to quantify information on illegal practices and collecting evidence against people leading or involved in criminal activity. IJM's undercover investigative approach allows trained data collectors to observe, quantify, and verify the crime without alerting potential perpetrators or causing further harm to trafficking victims or negative impacts to non-victim sex workers.

IJM has developed this innovative methodology for capturing data on a hard-to-reach population and a hidden crime. Without circumventing traditional participatory research methods, it is not possible to collect the data necessary to demonstrate the extent of CSEC within a defined geographic area and move government officials to action. IJM has experience leveraging the data collected through these prevalence studies to encourage government bodies to act on the problem of CSEC. IJM has developed relationships, trust and confidence with key public justice actors which have led to meaningful country-led interventions to combat trafficking and sexual exploitation of children.

Figure 1 - Map of Cambodia



Due to the necessity of gathering data through an undercover investigative approach, IJM did not administer informed consent or remuneration in this prevalence study. All IJM investigators and data collectors abide by a code of conduct policy for investigative practices, as well as an internal

child protection policy which is in alignment with the United Nations Children’s Fund (UNICEF) Convention on the Rights of the Child and other U.S.-based child protection standards. All study data collectors passed rigorous background checks conducted by an external organization, were required to sign a declaration of their commitment to a strict set of standards to protect children and others they engaged in the study and were required to strictly adhere to IJM’s policy governing investigative conduct during undercover operations.

Sampling Design

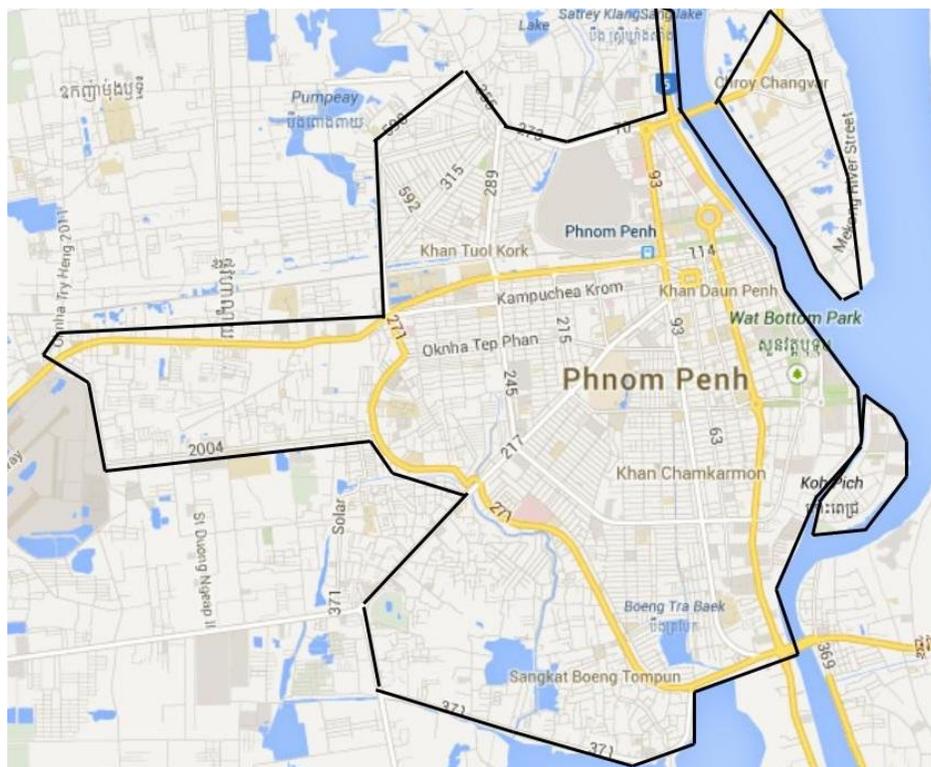
Geographic Study Boundaries

Locations eligible for data collection were defined as commercial establishments in Phnom Penh, Siem Reap and Sihanoukville in which high numbers of CSWs can commonly be found. Within each city, the geographic boundaries identified below were selected because they contain an extremely high percentage of the known commercial sex establishments in their respective cities.

Phnom Penh

The study focused on the following Phnom Penh districts and portions of districts: the district of Sen Sok, as it extends west to the airport; the central Phnom Penh districts of Tuol Kouk, 7 Makara, Doun Penh and Chamkar Mon; the portion of the Russei Keo district to the north and west of the Tonle Sap River; and lastly the portion of the Mean Chey district West of the Tonle Sap River. It also included portions of Chroy Changvar between the Tonle Sap and the Mekong and all of Koh Pich Island.

Figure 2 - Map of Phnom Penh Study Area



Siem Reap

The Siem Reap study area included Kruos, Taphul Village, the French Quarter (including Pub Street), Group 12 and Wat Bo area extending along High School Rd. It extended as far north as Siem Reap proper, Trang and the southern half of the large grid to the west of Charles Degaulle Road.

Figure 3 - Map of Siem Reap Study Area



Sihanoukville

The Sihanoukville study area extended from Phnom Thmei along the coastal areas of New Beach, Hawaii Beach, Sokha Beach and Occheuteal Beach as well as the interior districts of Khan Mitterheap and Sangkat 2 and near Wat Leu.

Figure 4 - Map of Sihanoukville Study Area



Sampling Frame Construction

The sampling frame of suspected commercial sex establishments (CSEs) was developed using a variety of methods from June to October 2012.

As an initial step, IJM staff in Cambodia reviewed IJM case files and consulted with IJM's investigative network to develop a list of CSEs in the three study areas.

Second, IJM staff in Cambodia gathered information regarding potential CSEs from a small number of trusted NGO anti-trafficking partners. Due to the undercover, clandestine data collection techniques used during the study, the number of organizations this information was requested from was limited in order to maintain the security and confidentiality of the study.

Third, using maps, satellite imagery from Google Maps, and in the case of Siem Reap, recently taken aerial imagery, IJM staff and trained volunteers divided each city into sectors and assigned teams to identify suspected CSEs in each sector. All roads in each section were covered, either on foot, by bike or by car, a minimum of two times to ensure that all CSEs were identified.

During the location mapping process, all identified suspected CSEs were inputted into a database along with the following information: (1) the establishment type (described below); (2) the name of the establishment; (3) a numeric identification number assigned to the establishment; (4) the address of the establishment (if available); and (5) GPS coordinates for the establishment.

One pass was typically made in the morning or afternoon, while most CSEs are typically closed, as well as during the evening to add any potential CSEs that were not identifiable during the day. In addition to ensuring that the list of suspected CSEs was comprehensive, the multiple pass method helped to eliminate previously identified establishments at which CSWs were not present, or that were not involved in the commercial sex industry.

Systematic street-based mapping of suspected CSEs proved to be a very time consuming process, but IJM is confident that it, along with the other mapping methods used, resulted in an exhaustive list of potential commercial sex establishments in the three target cities. The mapping process ultimately resulted in the identification of 990 total suspected commercial sex establishments.

Table 4 - Identified Suspected Commercial Sex Establishments

<u>City</u>	<u>Beer Garden</u>	<u>KTV</u>	<u>Hostess Bar</u>	<u>Brothel</u>	<u>Massage Parlor</u>	<u>TOTAL</u>
Phnom Penh	111	132	56	180	196	<u>675</u>
Siem Reap	18	27	11	23	118	<u>197</u>
Sihanoukville	3	87	10	7	11	<u>118</u>
<u>TOTAL</u>	<u>132</u>	<u>246</u>	<u>77</u>	<u>210</u>	<u>325</u>	<u>990</u>

Establishment Types

During the mapping stage of the study, identified commercial sex establishments were stratified by city as well as by the following establishment types:

- **Karaoke Clubs (KTVs):** KTVs feature booths, or rooms, with audio playback and sometimes video playback equipment that permits customers to sing along with music having no lead singer or group. Singing karaoke is a popular activity in Cambodia, as well as throughout much of the rest of Asia. Some KTV clubs in Cambodia are non-criminal and entertainment focused, but many others also make women and girls available for sex. In Cambodia, KTVs range in size and typically employ between 15 and 80 girls and women, however both larger and smaller KTVs can be found. Smaller, less expensive KTVs are often frequented by Cambodian men, while larger, more expensive KTVs are popular with Asian tourists, particularly men from South Korea and Japan. Women and girls are available for customers to select to sit with them and sing karaoke songs. In sexually oriented KTVs, CSWs are often seated at the entrance of the establishment, allowing customers to select them upon entering the establishment. In other KTVs, a lineup of women and girls are brought into the customer's private KTV room for them to select from. While in the past a number of KTVs had rooms available for sex within the establishment, it is increasingly rare for KTVs in Cambodia to allow customers to engage in sex with CSWs on premises, instead requiring them to take the CSW elsewhere for sex.
- **Massage Parlors:** Massage parlors are ubiquitous throughout Cambodia. Massage parlors range in size, but typically employ between four and 30 masseuses. Massage parlors cater to both local and foreign clientele. Customers are able to select a woman or girl to give them a massage in a private room. Similar to KTVs, massage parlors typically have available women and girls in the front room of the establishment, where customers can select who they would like to receive a massage from. In larger establishments there is sometimes a "fishbowl," where a large group of women and girls are presented behind a glass divider. Customers select which female worker they want by indicating a number assigned to a woman or girl or by using a laser pointer to indicate their choice. While some massage parlors in Cambodia are not affiliated with the sex industry, many others derive the majority of their income by encouraging or requiring their staff to provide sexual services for money.
- **Hostess Bars:** Hostess bars cater almost exclusively to foreigners, and particularly Western tourists. In Cambodia, a hostess bar is an actual bar where customers can sit and order drinks and food while female "hostesses" keep them company. Hostess bars are generally smaller establishments that employ anywhere from 5 to 40 CSWs as dancers, "guest relations officers" (GROs) or waitresses. The CSWs typically congregate around the bar and talk with any customer who wants their company. Most hostess bars are commercial sex establishments in which CSWs are available for sex services. In the past, many hostess bars provided room on site in which customers could engage in sex with CSWs, but that has become increasingly rare in recent years as establishment owners attempt to shield

themselves from prosecution. Now, most hostess bars require customers to pay a “bar fine” and take CSWs elsewhere to have sex.

- **Beer Gardens:** Beer gardens are also very common establishments in Cambodia. Most beer gardens, which are commonly open-air establishments or situated in a courtyard area, range in size from 10 to 25 women and girls. Some beer gardens employ CSWs directly as GROs or waitresses, while others simply allow freelance sex workers to congregate and engage potential sex customers in the establishment as a way to attract men to visit the establishment. Similar to KTVs and hostess bars, the women and girls are available to sit with a customer throughout the night. They refill empty beer glasses in addition to keeping the customers company. If the CSW is employed by the establishment, a customer must typically pay a “bar fine” or “early work release” to the establishment in order to leave the establishment with the CSW to have sex elsewhere.
- **Brothels:** Traditional brothels are commercial sex establishments that do not front as any of the other business described above. Increasingly brothels in Cambodia attempt to front as some other form of business, such as coffee shops, cafes or hairdressers. This front, however, is typically not significant or elaborate. At a number of “coffee shops” visited during this study, data collectors were viewed with suspicion after requesting coffee. Some brothels continue to allow customers to engage in sex on premises, but many are following the example of “entertainment” establishments and no longer allow sex to occur on premises. Brothels cater heavily towards Cambodian nationals and are typically small establishments that employ anywhere from two to 12 girls and women. In brothels, commercial sex workers are usually seated in chairs in the front of the establishment, or in a room out of sight of the street.

Establishment Assignments

During the data collection phase, field data collectors were assigned between six and 10 establishments at which to collect data on a daily basis. While these assignments were derived from the randomized sampling frames described above, establishments were assigned to specific data collectors rather than randomly. This was done to maximize data collection efficiency, ensure that each establishment was visited by data collectors of the appropriate ethnicity, and to protect the ability of the data collectors to operate in a covert fashion.

Additionally, to the extent possible, daily assignments were structured to keep data collectors within a relatively small geographic area in order to maximize efficiency and minimize travel times without compromising the ability to collect data in a covert manner.

Replacement Establishments

Based on past experience employing similar methodologies in other locations, the study team expected that a number of sampled establishments would be closed, either temporarily or permanently, or determined to be legitimate (i.e. not involved in or associated with the commercial sex industry). Despite the significant time and effort devoted to establishment identification during the first phase of the study, this was inevitable given the fluid nature of the commercial sex industry

in Cambodia and the challenges of collecting data from hundreds of sampled establishments, in three different cities, within a relatively short-period of time.

When this occurred, a replacement establishment was assigned by selecting the next establishment of the same type in the same city from the randomized list of establishments. Depending on the geographic areas the data collector was operating in a given evening, it was not always possible to assign replacement establishments on the same day. Throughout the study, to the extent possible, daily assignments adhered to the identified sampling proportions. However, this strategy had to be balanced with the need to minimize data collectors’ travel times by assigning establishments in a limited geographic area.

As the study progressed and higher numbers of specific establishment types were determined to be closed or legitimate, it was not possible to collect data at all replacement establishments during the study. This resulted in the achieved sample sizes for each stratum deviating somewhat from the target proportions. The impact of this is further discussed in the following section and the “Study Limitations” section.

Sample Size & Selection

In calculating the target sample size, the study methodology attempted to strike a balance between achieving a sufficiently large sample size to allow generalization of results to the broader population while staying within resource and time constraints. In scientific studies, a 95% overall confidence level with a 5% margin of error is generally considered an acceptable accuracy level. To achieve the desired accuracy, the study team initially targeted to collect data from 327 confirmed commercial sex establishments. Please see Appendix A for further information regarding the formulas used to calculate the necessary sample sizes.

Table 5 - Target Sample Sizes by City and Establishment Type

<u>City</u>	<u>Beer Garden</u>	<u>KTV</u>	<u>Hostess Bar</u>	<u>Brothel</u>	<u>Massage Parlor</u>	<u>TOTAL</u>
Phnom Penh	25	30	13	41	44	153
Siem Reap	9	14	6	12	59	100
Sihanoukville	2	55	6	4	7	74
<u>TOTAL</u>	36	99	25	57	110	327

The target sample size for each city was proportionately allocated between each city’s stratum. This was done by dividing the number of establishments in each stratum by the total number of suspected CSEs identified in the city. For example, of the 675 suspected CSEs in Phnom Penh, 111 (or 16.44%) were beer gardens. The target sample size for Phnom Penh (153) was multiplied by 16.44%, resulting in the target sample size of 25 for the Phnom Penh-Beer Garden stratum.

Stratum Revisions

After the completion of the data collection, the total number of suspected CSEs in each stratum was reduced based on the percentage of visited establishments that were determined to be legitimate. For example, data collectors visited 47 of the 111 identified beer gardens in Phnom Penh. Of these, seventeen (or 36.17%) were determined to be legitimate. As a result, the Phnom Penh-Beer Garden stratum was reduced by 36.17%, from 111 to 71. The same calculation was applied to each stratum of the sampling frame.

The table below lists the revised stratum estimates after they were reduced based on suspected CSEs that were confirmed to be legitimate:

Table 6 - Revised Stratum Estimates

<u>City</u>	<u>Type</u>	Original Stratum Total	# of Visits Attempted	% Confirmed Legitimate	Revised Stratum Total
PHNOM PENH	Beer Garden	111	47	36.17%	71
	KTV	132	68	14.71%	113
	Hostess Bar	56	28	28.57%	40
	Brothel	180	103	30.10% ¹	126
	Massage Parlor	196	102	30.39%	136
	Total	675	348	27.87%	486
SIEM REAP	Beer Garden	18	6	0.00%	18
	KTV	27	23	8.70%	25
	Hostess Bar	11	8	25.00%	8
	Brothel	23	13	23.08% ¹	18
	Massage Parlor	118	62	4.84%	112
	Total	197	112	8.93%	181
SKVL	Beer Garden	3	1	0.00%	3
	KTV	87	59	1.69%	86
	Hostess Bar	10	8	37.50%	6
	Brothel	7	3	0.00%	7
	Massage Parlor	11	11	18.18%	9
	Total	118	82	7.32%	111

¹ A “legitimate” brothel is one that was identified during the mapping phase as a suspected brothel, but during data collection was determined to not be associated with the commercial sex industry. For example, during mapping, numerous coffee shops were identified as suspected brothels, however data collectors confirmed upon visiting them that the women and/or girls that were there are not available for sex and the establishment is not affiliated with the commercial sex industry.

<u>TOTAL</u>	Beer Garden	132	54	31.48%	92
	KTV	246	150	8.67%	223
	Hostess Bar	77	44	29.55%	55
	Brothel	210	119	28.57% ^[1]	151
	Massage Parlor	325	175	20.57%	258
	<u>Total</u>	<u>990</u>	<u>542</u>	<u>20.85%</u>	<u>777</u>

The strata sizes were not reduced based on sampled establishments that were determined to be closed. There are two primary reasons for this. First, it would be inaccurate to remove an establishment from the sampling frame because it was temporarily closed on the date it was sampled. Whenever possible, closed establishments were re-visited at a later date during the study, but this was not always feasible.

Second, a relatively high number of establishments closed between when they were originally mapped and when study data collectors attempted to visit them. Neither the study team nor IJM's Cambodia Field Office is aware of any recent, widespread closures of commercial sex establishments in the three target areas, or significant, rapid shifts in the Cambodia sex industry. Consequently, it is logical to infer that the majority of closed establishments were either closed temporarily, or if permanently closed, are simply reflective of the fluid nature of the Cambodian sex industry.

Given these two factors, the study team concluded that not reducing the strata sizes due to closed establishments produced the most accurate prevalence data. The un-weighted data is presented for comparison in Appendix B.

Data Weighting

Due to the sampled establishments that were determined to be legitimate or closed and subsequent revisions to the sampling frame, some strata were over-sampled and some strata were under-sampled. For example, the sampling strategy called for data to be collected at 12 hostess bars in Phnom Penh, but study data collectors ended up collecting data from 18, resulting in over-sampling. In contrast, 40 Phnom Penh massage parlors were to be sampled, however data was collected from only 31 due to the number of legitimate and closed establishments visited. Because the prevalence of minors identified in hostess bars was substantially lower than the prevalence identified in massage parlors, over-sampling of hostess bars in Phnom Penh resulted in a raw prevalence estimate that was lower than the actual prevalence figure. This was corrected by weighting data collected at confirmed CSEs and extrapolated to the broader population of identified CSEs to adjust for over-sampling and under-sampling of establishment types.

Weights were assigned to each stratum by dividing the number of CSEs in each stratum by the number of CSEs that were successfully sampled from that stratum. Finally, the data from each successfully sampled CSE was multiplied by the calculated weight for that particular sub-population. The following table presents the calculated weights for each stratum:

Table 7 - Weights by Stratum

City	Establishment Type	Revised Stratum Total	Successfully Sampled	Weight
PHNOM PENH	Beer Garden	71	15	4.72
	KTV	113	33	3.42
	Hostess Bars	40	18	2.22
	Brothel	126	14	8.99
	Massage Parlor	136	31	4.40
	<u>TOTAL</u>	<u>486</u>	<u>111</u>	<u>N/A</u>
SIEM REAP	Beer Garden	18	6	3.00
	KTV	25	15	1.64
	Hostess Bar	8	3	2.75
	Brothel	18	3	5.90
	Massage Parlor	112	42	2.67
	<u>TOTAL</u>	<u>181</u>	<u>69</u>	<u>N/A</u>
SKVL	Beer Garden	3	1	3.00
	KTV	86	40	2.14
	Hostess Bar	6	5	1.25
	Brothel	7	3	2.33
	Massage Parlor	9	3	3.00
	<u>TOTAL</u>	<u>111</u>	<u>52</u>	<u>N/A</u>

As an example, the revised total number of Phnom Penh beer gardens was 71. Of these, 15 were successfully sampled. As a result, the weight assigned to the Phnom Penh beer garden strata was 4.72. For each of the 15 successfully sampled Phnom Penh beer gardens, the number of identified CSWs, suspected and confirmed borderline minors, and young minors were multiplied by 4.72. Put simply, each successfully sampled establishment ‘represented’ 4.72 similar establishments.

The table below gives a hypothetical example of how raw data was entered into the database and then subsequently weighted:

Table 8 - Hypothetical Example of Raw & Weighted Data

City	RAW DATA					Stratum Weight	WEIGHTED DATA		
	Estab. ID	Type	Total CSWs	Borderline Minors	Young Minors		Total CSWs	Borderline Minors	Young Minors
Phnom Penh	391	KTV	30	2	1	4.72	141.60	9.44	4.72
Siem Reap	572	Massage	7	1	0	2.67	18.69	2.67	0.00
Sihanoukville	691	Brothel	4	0	0	2.33	9.32	0.00	0.00
TOTAL	N/A	N/A	41	3	1	N/A	169.61	12.11	4.72

In the hypothetical set of data above, the raw prevalence of minors is 9.76%. However, once the data is weighted to adjust for the different sampling proportions, the total prevalence is 10.08%. The increase in prevalence from the raw data to the weighted data is caused by the higher weight

assigned to the Phnom Penh-KTV stratum compared to the Siem Reap-Massage stratum and the Sihanoukville-Brothel stratum.

In the Findings section of this report, all information regarding the number of individuals identified or the number of establishments in which they were identified is based on direct observations by the data collectors.

In contrast, the prevalence figures, shown as percentages, have been adjusted using the stratum weights as described above. This is done to present a more accurate picture of the study results through the application of the comprehensive sampling list constructed for the study. Please see Appendix B for information on prevalence estimates calculated from the raw, un-weighted study data.

Data Collection

A total of 10 data collectors of mixed ethnicities participated in the data collection phase of the study. Cumulatively they possessed more than 50 years of undercover law enforcement or field data collection experience.

The data collectors employed traditional undercover investigative techniques to determine the availability of minors for commercial sexual exploitation in commercial sex establishments in the three target cities. Data collection techniques included but were not limited to physical observation and verbal engagement with individuals in the establishments. Data was communicated to the command post shortly after collection to ensure data integrity and to minimize errors.

Data Collection Training

Prior to the start of the study, the study team received two days of classroom and field instruction on security, age identification and data collection techniques from IJM staff in Cambodia. In a classroom setting, the data collection team received training on how the commercial sex industry operates in Cambodia, methods to avoid compromising their undercover identity, the various types of establishments in which they would be collecting data, and techniques to maximize the quality of data collected.

Prior to the start of the study, the data collectors also participated in an age identification exercise. Ninety Cambodian and Vietnamese women and girls age 12-25 volunteered to participate in the exercise. This identification exercise provided the data collectors the opportunity to estimate the ages of Khmer and Vietnamese women and girls in a real-world setting. The exercise also allowed IJM to ensure that all data collectors were capable of differentiating between Khmer and Vietnamese girls and women of varying ages with accuracy sufficient to produce reliable data.

All ten of the data collectors performed well during the exercise. Cumulatively they were 80% accurate differentiating between adults and children, and six of the ten scored 80% or higher. The lowest score was 72%.

Psychosocial Briefing for Study Participants

The study team was briefed on the potential emotional and psychological impact of interaction with commercial sex workers, child trafficking victims and those responsible for sex trafficking. The study team was also given suggested ways to identify and process vicarious trauma resulting from participation in the study. Confidential psychosocial counseling was made available to all study participants during the study and after its completion.

All data collectors were instructed to prepare written field notes at the conclusion of each day of data collection. These field notes constituted an important source of both quantitative and qualitative information on CSEC in Cambodia.

Data Auditing

To ensure the accuracy of collected data, data auditing was conducted in three stages throughout the study. During the data-collection phase, recorded data was routinely reviewed by data collectors to ensure that it was encoded accurately. This allowed them to catch inadvertent errors resulting from incorrect key presses during the composition of a text message or garbled information due to a bad cell connection.

The second stage of data auditing involved a second round of data collection at approximately 10% of confirmed commercial sex establishments originally sampled by data collectors in each of the three cities during the data collection phase of the study. Half of the re-sampled establishments were randomly selected, and the other half were specifically chosen in order to confirm data collected during the data collection phase of the study. To provide an additional, independent data source, data collectors were not assigned to audit establishments they had already visited during the data collection phase.

Data collected during the audit process was averaged with the data collected during the original visit to the establishment and then incorporated into the overall study results.

Finally, data managers compared information in the daily field reports drafted by data collectors to the data recorded in the database to reconcile any remaining discrepancies.

STUDY FINDINGS

This section presents the study findings based on collected data. Study findings across all three target cities are presented, and are also disaggregated by city and by establishment type.

Commercial Sex Workers and Minors Identified

The data collectors identified a raw total of 1,911 commercial sex workers and identified minor trafficking victims in the 232 visited establishments. The adjusted average number of CSWs per establishment was 8.24.

Table 9 - CSWs observed by city

<u>City</u>	Number of CSWs Observed	Average # of CSWs Observed per Establishment
Phnom Penh	1,056	9.51
Siem Reap	620	8.99
Sihanoukville	235	4.52
<u>TOTAL</u>	<u>1,911</u>	<u>8.24</u>

Across the three target cities, hostess bars had the highest average number of CSWs (11.06 per establishment). The lowest average number of CSWs was identified in brothels at 4.38 per establishment.

Table 10 - CSWs Observed by Establishment Type

Establishment Type	Number of CSWs Observed	Average # of CSWs Identified by Establishment Type
Beer Garden	170	7.73
KTV	956	10.88
Hostess Bar	288	11.06
Brothel	88	4.38
Massage Parlor	409	5.38
<u>TOTAL</u>	<u>1911</u>	<u>8.24</u>

Overall CSEC Prevalence

One hundred forty-one total minors were identified by study data collectors during data collection. Of these, 75 were identified in Phnom Penh, 57 were identified in Siem Reap, and nine were identified in Sihanoukville.

By adjusting based on the stratum weights, the study estimates that the overall prevalence of CSEC in commercial sex establishments in the three target cities is **8.16%**. This includes both “borderline” and “young minors.” Siem Reap had the highest overall prevalence at 9.22%. Phnom Penh’s overall prevalence rate was 8.32%, and Sihanoukville’s was 3.72%.

Table 11 - Weighted Total Prevalence by City

<u>City</u>	Number of Minors Identified	Overall Prevalence	Percentage of CSEs with Minors
Phnom Penh	75	8.32%	39.82%
Siem Reap	56	9.21%	33.29%
Sihanoukville	9	3.72%	18.15%
<u>TOTAL</u>	<u>141</u>	<u>8.16%</u>	<u>35.22%</u>

Disaggregated by establishment type, the highest total prevalence of minors, including both borderline and young minors, was identified in brothels (19.40%).

Brothels were also found to be the most likely to exploit minors (52.05%), although minors were identified in a high percentage of KTVs (49.41%) as well. Hostess bars had the lowest total prevalence at 1.79%, and were the least likely to exploit minors (8.15% of establishments).

Table 12 - Weighted Total Prevalence by Establishment Type

Establishment Type	Number of Minors Identified	Overall Prevalence	Percentage of CSEs with Minors
Beer Garden	9	4.77%	28.98%
KTV	82	8.21%	49.41%
Hostess Bar	5	1.79%	8.15%
Brothel	17	19.81%	52.05%
Massage Parlor	28	7.18%	22.45%
TOTAL	141	8.16%	35.22%

Prevalence of Young Minors

Sixteen young minors (age 15 or younger) out of 1,911 commercial sex workers were identified during data collection. Seven were identified in Phnom Penh, eight were identified in Siem Reap, and one was identified in Sihanoukville. This resulted in a weighted prevalence of young minors of **0.75%** across all three target cities. Siem Reap's young minor prevalence was the highest at 1.18%, while Sihanoukville's was the lowest at 0.22%.

Table 13 - Weighted Prevalence of Young Minors by City

City	Number of Young Minors Identified	Prevalence of Young Minors	Percentage of CSEs with Young Minors
Phnom Penh	7	0.66%	6.97%
Siem Reap	8	1.18%	12.26%
Sihanoukville	1	0.22%	1.93%
TOTAL	16	0.75%	7.49%

Disaggregated by establishment type, the highest total prevalence of young minors was identified in KTVs (1.06%). No young minors were identified in beer gardens or hostess bars. Young minors were most commonly identified in KTVs (15.30%).

Table 14 - Weighted Prevalence of Young Minors by Establishment Type

Establishment Type	# of Young Minors Identified	Prevalence of Young Minors	Percentage of CSEs with Young Minors
Beer Garden	0	0.00%	0%
KTV	11	1.06%	15.30%
Hostess Bar	0	0.00%	0%
Brothel	1	0.66%	6.26%
Massage Parlor	4	0.95%	5.86%
TOTAL	16	0.75%	7.49%

Prevalence of Borderline Minors

A total of 125 borderline minors out of 1,911 CSWs were identified during data collection. Of these, 69 were identified in Phnom Penh, 48 were identified in Siem Reap, and eight were identified in Sihanoukville. This results in an adjusted borderline prevalence estimate of 7.41%. Siem Reap's prevalence of borderline minors was the highest at 8.03%, while Sihanoukville's was the lowest at 3.49%.

Table 15 - Weighted Prevalence of Borderline Minors by City

City	Number of Borderline Minors Identified	Prevalence of Borderline Minors by City	Percentage of CSEs with Borderline Minors
Phnom Penh	69	7.66%	39.12%
Siem Reap	48	8.03%	31.81%
Sihanoukville	8	3.49%	18.15%
TOTAL	125	7.41%	34.44%

Disaggregated by establishment type, the highest total prevalence of borderline minors was identified in brothels (19.40%). The lowest borderline prevalence was identified in hostess bars (1.79%).

Table 16 - Weighted Prevalence of Borderline Minors by Establishment Type

Establishment Type	Number of Borderline Minors Identified	Prevalence of Borderline Minors by Establishment Type	Percentage of CSEs with Borderline Minors
Beer Garden	9	4.77%	29.98%
KTV	71	7.15%	47.88%
Hostess Bar	5	1.79%	8.15%
Brothel	16	19.40%	52.05%
Massage Parlor	24	6.23%	21.42%
TOTAL	125	7.41%	34.44%

ANALYSIS & CONCLUSIONS

Overall Prevalence

Methodologies employed by other organizations to measure the prevalence of CSEC in Cambodia have varied significantly, but most resulted in estimates of prevalence of CSEC between 15%-30% (Derks, Henke, & Vanna, 2006). A 1997 report published by the Royal Government of Cambodia (RGC) estimated that 16% of all CSWs in brothels nationwide were children (Understanding Children's Work, 2006). Another report published by the UNDP and the RGC estimated that 30% of CSWs were children (Royal Government of Cambodia, 2000). The notable exceptions to this are studies conducted by Thomas Steinfatt from the University of Miami in 2003 and 2008. Steinfatt's 2003 study estimated a nationwide prevalence of minors in CSW of 3.7%, however that study was weakened by primarily relying on taxis, motodops and lists provided by the Cambodian Ministry of Tourism and Development to identify potential sex establishments. This approach likely introduced substantial bias into the data and resulted in undercounting of both CSWs and trafficked minors (Swingle & Kapoor, 2006). Furthermore, both Steinfatt's 2003 study and his 2008 study were conducted in the midst of widespread government crackdowns against CSEC, and in the case of 2008, commercial sex work more generally in Cambodia. Both factors led to short-term, artificial decreases in the availability of minors for commercial sexual exploitation, as well as CSWs more generally across the country, and particularly in Phnom Penh, which was the focal point of the crackdowns.

While there is limited reliable historic prevalence data on CSEC in Cambodia, the results of this study support the conclusion that the availability of children in commercial sexual exploitation in Cambodia has decreased since 2000, with the most significant decrease among exploited children age 15 or younger. Anti-trafficking stakeholders, when interviewed for an IJM-commissioned study titled "Commercial Sexual Exploitation of Children in Cambodia and the Public Justice System Response: A Stakeholder Analysis of Change between 2000-2012," largely agreed that the number of young minors being exploited for sex has significantly decreased over the past decade, leading the researcher to conclude that "the available data indicates that over the last ten years the public justice system's response to CSEC has improved significantly, contributing to a decrease of CSEC in Cambodia... The decrease has been observed most significantly within the group of young minors" (van der Keur, 2013).

Throughout the study, numerous individuals associated with the commercial sex industry in Cambodia expressed fear of possible arrest as a result of trafficking minors. At a KTV in Siem Reap, a data collector confirmed the presence of several minors, but an establishment employee was adamant that no minors were employed by his establishment. There were also occasions in which individuals associated with the commercial sex industry warned data collectors of the danger of having sex with minors. One individual specifically mentioned a Korean man that had recently been arrested for having sex with a minor girl, and advised the data collectors not to take the risk.

Minor trafficking victims were also very reluctant to reveal their real ages. Data collectors observed clear patterns by which minor trafficking victims would assert an older age, even when it was clear that the individual had not yet reached the age of majority.

As an additional comparison point to the study's prevalence findings, IJM's Cambodia Field Office tracks data collected during ongoing investigations of trafficking in CSEs in Phnom Penh. During visits to brothels in Phnom Penh over the course of several months immediately after the completion of the prevalence study, IJM staff observed 140 total CSWs. Of these, 26 were identified as borderline minors (18.57%) and two (1.43%) were identified as young minors, resulting in a prevalence rate of 20% in the visited brothels. Minors were identified in 14 of the 27 brothels visited (52%). These numbers are nearly identical to the prevalence study's findings for brothels.

Prevalence of Young Minors

Throughout the study, data collectors struggled to locate young minors available for commercial sexual exploitation. Even when young minors were identified, establishment management frequently displayed a reluctance to allow them to leave the establishment or expressed concern over potential law enforcement action.

A possible explanation for the relatively higher concentration of young minors in KTVs is that the demand for young minors is primarily driven by wealthy Cambodians and Asian tourists, which has been noted by a number of researchers and anti-trafficking stakeholders in Cambodia (Frederick, Mathews, & Leigh, 2006) (van der Keur, 2013). Consequently, the highest prevalence of young minors available for sexual exploitation could be expected to be found in commercial sex establishments with the highest attendance of wealthy Cambodian men and Asian tourists, which, in IJM's experience, tend to be larger, more expensive KTVs in Phnom Penh and Siem Reap.

The data from the study supports this conclusion. The KTVs found to be exploiting young minors averaged 17.82 CSWs working in the establishment, compared to an average of 9.56 CSWs in the KTVs in which no young minors were identified. However, this conclusion is speculative and warrants further research.

Prevalence of Borderline Minors

Despite the clear evidence of a reduction in availability of minors for commercial sexual exploitation, particularly among young minors, it is similarly true that the prevalence of borderline minors still in exploitation remains quite high at 7.41%. There are several different factors driving this.

First, as noted earlier in the report, IJM has witnessed a significant shift in how the Cambodian commercial sex industry operates away from the traditional brothel-based sex establishments towards KTVs and other types of establishments that are frequently referred to as "entertainment establishments."

While traditional commercial sex establishments in Cambodia have typically allowed customers to engage in sex with CSWs and exploited minors on the premises, "entertainment" establishments

most often do not, instead requiring customers to pay a fee, often referred to as a “bar fine” or “early work release,” to take a CSW or exploited minor away from the premises for sex. The experiences of the data collectors during this study mirrored this trend. Study data collectors were able to confirm that sex was available on premises at only 11% of establishments visited. It is possible that a number of establishments in which data collectors were not able to gather this information do allow sex on premises, but regardless, the overall percentage of establishments that still allow sex on premises is quite small.

Similarly, at individual establishments data collectors were commonly assured that CSWs present were available for sex, but whether a specific CSW would have sex with them was up to the individual, as was the price of sex.

Anecdotal evidence suggests that this industry shift is a result of efforts by establishment owners and managers to distance themselves from CSEC, as well as overt prostitution, and thereby protect against arrest for violation of anti-trafficking laws. To date, Cambodian prosecutors have refused to issue warrants for anti-trafficking police to conduct operations on entertainment establishments that do not allow sex on premises. In the view of the prosecutors, the fact that the sex no longer takes place on the premises and the establishment owners and staff are often not directly engaged in the transaction for sex means that the establishments are no longer operating as “brothels” nor are the establishment owners or staff responsible for what the customers do with girls or women once they leave the premises. In addition, because police lack the legal authority and protection to conduct undercover operations to collect audio and video evidence of crimes being committed, law enforcement has been unable to collect the evidence needed to prove that establishment owners and staff may be promoting or controlling the prostitution of minors at their establishment.

STUDY CHALLENGES & LIMITATIONS

Construction of the Sampling Frame

One of the most common challenges associated with a time-space sampling design is the difficulty of establishing a comprehensive sampling frame or to confirm whether a sampling frame is comprehensive (Raymond, 2007). The requirement to map all suspected commercial sex establishments in three different cities, separated by significant distance, further complicated the process for the Cambodia study. While it is not possible to conclusively verify the degree to which the sampling frame was exhaustive, the study team is confident that it was comprehensive for several reasons.

Most importantly, throughout the study, data collectors enquired as to the presence of other CSEs. A number of alternate establishments were suggested to the data collectors, only one of which was not already included in the sampling frame. While not conclusive, this does support the assertion that the sampling frame was comprehensive.

Second, while en route to sampled establishments, data collectors routinely took note of other commercial sex establishments in the area. All of these were determined to be on the sampling frame.

Finally, the data collectors noted that a number of the assigned establishments were located in out-of-the-way, and in some cases, hidden locations. Without GPS coordinates and/or specific directions on how to locate these hidden establishments, it is highly unlikely the data collectors would have successfully located them. Furthermore, it is also unlikely that forms of convenience sampling employed by other studies to measure the prevalence of sex trafficking in a location, such as relying on bellhops, motodops or taxi drivers, would have resulted in the identification of these hidden establishments. While this does not ensure that no commercial sex establishments were overlooked during the mapping process, it does support the comprehensive nature of the sampling frame.

Closed & Legitimate Establishments

As was noted earlier in the report, a number of sampled establishments were determined to be legitimate businesses not associated with or engaged in the commercial sex industry. Given additional resources, it would have been preferable for the study team to further vet the list of identified establishments, which would have reduced the amount of time spent during data collection visiting legitimate establishments, and consequently increasing the number of actual commercial sex establishments sampled.

A related issue was the number of mapped establishments that were selected for data collection but were closed, whether temporarily or permanently. To a large degree, this is a result of the number of very small, low-cost establishments included in the sampling frame and the transient nature of the commercial sex industry in Cambodia, particularly among small sex establishments such as brothels. Slightly more than 50% of all brothels visited by data collectors were closed.

Ultimately, the number of closed and legitimate establishments lowered the overall accuracy of the study. While the 232 successfully sampled establishments resulted in a relatively low overall margin of error of 3.81% for the studies’ cumulative prevalence estimates, the margin of error for each city was higher than the targeted 5%.

To reduce the margin of error for future studies, additional time and resources should be spent vetting suspected commercial sex establishments identified during the mapping phase. Additionally, the length of time between the completion of the mapping phase and data collection should be kept to a minimum. Both steps will reduce the amount of time spent attempting to sample closed or legitimate establishments, resulting in a higher achieved sample size and improving the overall accuracy of the study.

Table 17 - Margin of Error by City

City	Margin of Error
Phnom Penh	5.84%
Siem Reap	6.65%
Sihanoukville	7.11%
TOTAL	3.81%

Focus on Commercial Sex Establishments

One of the limitations of the study methodology chosen is that the sampling frame was constructed from commercial sex establishments in the three target cities. This limits the ability with which study findings can be inferred to the broader population of commercial sex workers in Cambodia, as it limited the study to CSWs who could be identified within commercial sex establishments (thus excluding street- or community-based CSWs). The focus on establishments also limited the number of boys included in this study as boys are primarily exploited and trafficked on the streets or through community-based networks.

Despite this, the study team believes that the prevalence findings are representative of overall trends regarding the commercial sexual exploitation of minors in Phnom Penh, Siem Reap and Sihanoukville. Most importantly, it is likely that the sampling frame constructed for the study captured a very high percentage of all CSWs in the target area. Research conducted by Melissa Farley into men who buy sex in Cambodia estimated that the most common locations for men to engage with CSWs are brothels, KTVs and bars. Only 10% of Cambodian men surveyed by Farley reported engaging a CSW in an outside location (such as a street or park area), and only 3% of surveyed men reported having contacted a CSW through the internet (Farley, Freed, Phal, & Golding, 2012). However, this point warrants further research as IJM is not aware of any significant research conducted in recent years primarily focused on shifts towards or away from non-establishment based prostitution in Cambodia.

It is also sometimes suggested that most minor sex trafficking victims and their abusers have been “displaced” to more hidden forms of exploitation. According to a publication of the U.S. Department of Justice, there are five possible forms of displacement (Guerette, 2008):

- Temporal – offenders change the time at which they commit crime;
- Spatial – offenders switch from targets in one location to targets in another location;
- Target – offenders change from one type of target to another;
- Tactical – offenders alter the methods used to carry out crime;
- Offense – offenders switch from one form of crime to another.

While some sex traffickers have likely “displaced” to more “underground” forms of exploitation, it is likely a relatively small portion of the overall traffickers:

Research has consistently found that crime displacement is the exception rather than the rule and that diffusion of benefits is just as likely and sometimes more likely to occur. Whether displacement occurs is largely determined by three factors: offender motivation, offender familiarity, and crime opportunity...Put simply, very easy opportunities encourage crime and taking them out reduces the amount of crime committed. (Guerette, 2008)

The commercial sex industry is inherently an economic enterprise; however profitability is dependent on easy access to customers. Research conducted by Johns Hopkins University found that the large majority of sex tourists in Cambodia were “opportunistic” or “situational” offenders rather than “preferential sex tourists” (The Protection Project, 2007). Whereas preferential sex

tourists are intent on sexually abusing a child and are willing to go to the effort necessary to identify potential victims, “situational” sex tourists typically abuse children due to their easy availability (i.e. opportunity) rather than a specific intention to seek a child out. Consequently, as sex traffickers and their victims are pushed further underground, their potential customer base diminishes significantly due to the small number of preferential sex tourists compared to situational sex tourists. While limited data exist on the topic, the same generalizations are plausible for local customers in CSEs as well as sex tourists.

APPENDIX A: FORMULAS

Equation 1 - Standard formula used to calculate target sample size for a large (or infinite) population

$$n_o = \frac{Z^2 \times P \times (1-P)}{C^2}$$

- n_o = Original Target Sample Size
- Z = Z Value (for example, 1.96 for 95% confidence level)
- P = Proportion of the target population that exhibits a particular trait. In the case of this study, the “proportion” refers to the prevalence of identified CSWs who are minors. Based on the results of recent investigative data, the study team set the proportion at 0.15 (or 15%) as that was the highest prevalence rate expected by the team.
- C = Target confidence interval, set at $\pm 5\%$

Equation 2 - Finite Population Correction Formula to adjust for a small population

$$n_c = \frac{n_o}{1 + \frac{n_o - 1}{N}}$$

- n_c = Corrected target sample size
- n_o = Original Target Sample Size
- N = Total Population Size

Equation 3 - Margin of Error calculation formula

$$MOE = (Z) \times \sqrt{\frac{N-n}{N-1}} \times \sqrt{\frac{P(1-P)}{n}}$$

- MOE = Corrected target sample size
- N = Total Population Size
- n = Sample Size
- P = Proportion of the target population that exhibits a particular trait. In the case of this study, the “proportion” refers to the prevalence of identified CSWs who are minors. Based on the results of recent investigative data, the study team set the proportion at 0.15 (or 15%) as that was the highest prevalence rate expected by the team.

APPENDIX B: UNWEIGHTED PREVALENCE DATA

Table 18 - Un-weighted Prevalence by City

City	Number of Minors Identified	Overall Prevalence	Percentage of CSEs with Minors
Phnom Penh	75	7.13%	37.84%
Siem Reap	56	9.06%	36.23%
Sihanoukville	9	3.40%	17.31%
TOTAL	140	7.30%	32.76%

Table 19 - Un-weighted Prevalence by Establishment Type

Establishment Type	Number of Minors Identified	Overall Prevalence	Percentage of CSEs with Minors
Beer Garden	9	5.00%	27.27%
KTV	81	8.49%	47.73%
Hostess Bar	5	1.74%	7.69%
Brothel	17	18.86%	45.00%
Massage Parlor	28	6.93%	22.37%
TOTAL	140	7.30%	32.76%

Table 20 - Un-weighted Prevalence of Young Minors by City

City	Number of Young Minors Identified	Prevalence of Young Minors	Percentage of CSEs with Young Minors
Phnom Penh	7	0.63%	7.21%
Siem Reap	8	1.31%	15.94%
Sihanoukville	1	0.21%	1.92%
TOTAL	16	0.80%	8.62%

Table 21 - Un-weighted Prevalence of Young Minors by Establishment Type

Establishment Type	# of Young Minors Identified	Prevalence of Young Minors	Percentage of CSEs with Young Minors
Beer Garden	0	0.00%	0%
KTV	11	1.09%	15.91%
Hostess Bar	0	0.00%	0%
Brothel	1	0.57%	5.00%
Massage Parlor	4	1.06%	6.58%
TOTAL	16	0.80%	8.62%

Table 22 - Un-weighted Prevalence of Borderline Minors by City

<u>City</u>	Number of Borderline Minors Identified	Prevalence of Borderline Minors by City	Percentage of CSEs with Borderline Minors
Phnom Penh	69	6.50%	36.94%
Siem Reap	48	7.75%	34.78%
Sihanoukville	8	3.19%	17.31%
<u>TOTAL</u>	<u>125</u>	<u>6.50%</u>	<u>31.90%</u>

Table 23 - Un-weighted Prevalence of Borderline Minors by Establishment Type

Establishment Type	Number of Borderline Minors Identified	Prevalence of Borderline Minors by Establishment Type	Percentage of CSEs with Borderline Minors
Beer Garden	9	5.00%	27.27%
KTV	71	7.39%	46.59%
Hostess Bar	5	1.74%	7.69%
Brothel	16	18.29%	45.00%
Massage Parlor	24	5.87%	21.05%

APPENDIX C: Works Cited

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