August 2020 | Briefing

Estimating the Prevalence of Child Sex Trafficking in Maharashtra, India

Context

Estimating the prevalence of child sex trafficking (CST) is a critical first step for comprehensively addressing the problem. Information on the size of this key population provides national government agencies, non-profit organizations, and other key stakeholders with an estimate of the scale and scope of the problem to inform protective and preventive measures. Such estimates also allow leaders to advocate for resources for CST victims. However, reliably estimating the size of this population has historically been extraordinarily challenging because victims are hidden by design. Further, it is often impossible to survey this population through traditional enumeration methods due to ethical and legal guidelines for interviewing children who are victims of sexual exploitation.

In addition, the COVID-19 pandemic has severely constrained survey research operations for many organizations. It has reduced situational awareness and made field-based population engagements and program monitoring efforts extremely challenging and more costly, if not impossible. Amid the current environment — characterized by restrictions that reduce access to a traditional geographic sampling frame — standard survey approaches are at great risk of inducing unpredictable sampling error, coverage error, systematic non-response, and even measurement error.

In 2020, IST Research, in collaboration with the University of California, Los Angeles (UCLA), and with funding from the Global Fund to End Modern Slavery (GFEMS),
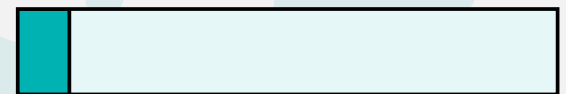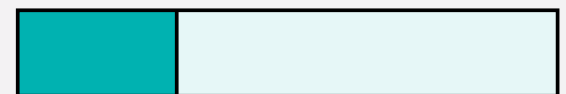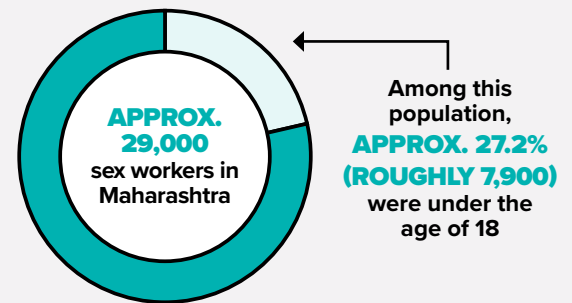
used a hybrid methodological approach to address the important challenge of estimating the number of CST victims in Maharashtra, India. This study aimed to estimate the population size of CST victims in Maharashtra at a state level across both the public and the private sides of the commercial sex trade. While prior research indicates that Maharashtra hosts a significant commercial sex industry, few or no studies have investigated characteristics of the populations of sex workers and CST victims in Maharashtra at a statewide level. Furthermore, few studies of either sex work or CST in India or elsewhere also include investigations into the behaviors of buyers, which may offer valuable insights to organizations seeking to develop, implement, and measure the effectiveness of counter-trafficking programming.

Key Findings

- The research findings indicate that there were approximately 29,000 sex workers in Maharashtra in early 2020 (95% Confidence Interval [CI]: 14,000, 52,000). Among this population, roughly 7,900 (approximately 27.2%) were under the age of 18 (95% CI: 2,600, 15,000).

- Response data collected through respondent-driven sampling surveys conducted directly with adult sex workers in Maharashtra indicate that approximately 30% of adult sex workers entered the commercial sex industry while underage. However, IST also found that fewer than 10% of adult sex workers admitted to knowing a CST victim, possibly out of fear of legal repercussions or due to the existence and expansion of separate, isolated communities within the commercial sex industry.

- As part of the study, the research team also remotely engaged with a sample of the general population to develop estimates of buyers of commercial sex in Maharashtra. Estimates indicated approximately 35,000 local buyers of the commercial sex industry in 2019 in the state (95% CI: 22,000, 54,000).

- Among these buyers, approximately 7,300 (21%) paid to have sex with children between the ages of 15 and 17 (95% CI: 3,700, 12,000) and approximately 1,700 (5%) paid to have sex with someone 14 years old or younger (95% CI: 500, 3,200).

- The study also found that among the buyers who paid to have sex with someone aged 17 or younger, more than 3,200 (36%) arranged the transaction digitally.

The findings from this study will be remeasured in 2022 to assess trends over time in Maharashtra. This initiation of trend analysis is critical for government stakeholders and implementing organizations in the modern slavery field in Maharashtra to understand the trajectory of CST in specific geographies, enabling them to comment on the potential collective effect of anti-CST interventions in the state.
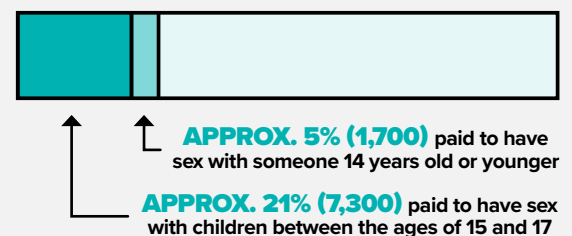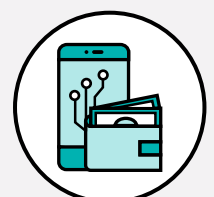
Key Findings at a Glance

APPROX. 29,000 sex workers in Maharashtra

Among this population, **APPROX. 27.2% (ROUGHLY 7,900)** were under the age of 18

APPROX. 30% of adult sex workers entered the commercial sex industry while underage

FEWER THAN 10% of adult sex workers admitted to knowing a CST victim

Estimates indicated approximately **35,000 LOCAL BUYERS** of the commercial sex industry in 2019 in the state

Among the 35,000 local buyers

APPROX. 5% (1,700) paid to have sex with someone 14 years old or younger

APPROX. 21% (7,300) paid to have sex with children between the ages of 15 and 17

Among the buyers who paid to have sex with someone aged 17 or younger, **MORE THAN 3,200 (36%) ARRANGED THE TRANSACTION DIGITALLY**

Methodological Approach

Reliably estimating CST is challenging given victims are hidden by design. Both this and the important ethical and legal guidelines in place for conducting research with children and directly engaging with victims of sexual exploitation make it nearly impossible to use traditional enumeration methods. This research employed a hybrid approach which uses the Network Scale-Up Method (NSUM), Respondent-Driven Sampling (RDS), and Time-Location Sampling (TLS), to allow researchers to obtain a point estimate of the size of the CST population using a general population survey and then further triangulate this estimate using targeted surveys of adult sex workers. This approach enhanced the ability of the research team to validate the findings drawn from each method, identify potential biases that may have otherwise been challenging to review or discuss, and provide more substantive inferences and conclusions regarding the overall commercial sex environment in Maharashtra.

All population engagement in this study took place remotely via telephone or smartphone between March and June 2020. The study team's remote engagement experience, combined with pre-pandemic sampling frame data provided by local partners, proved vital in enabling rigorous and rapid data collection amid the pandemic-induced lockdown. The study team collaborated with subject matter experts and field organizations working with sex workers in Maharashtra to develop the protocols and questionnaires for the study.

Network Scale-Up Method (NSUM): is an approach to estimating population sizes — in particular, hidden or hard-to-reach populations — using indirect measures based on the network structures of the general population.

Respondent-Driven Sampling (RDS): is a network-based sampling method that studies hidden populations by identifying seeds, or initial respondents, in the population of interest and then has them recruit additional members of the target population to participate in the study.

Time-Location Sampling (TLS): also called time-space sampling or venue-based sampling, is a technique to randomly sample locations, dates, and/or times where and when individuals gather.

This study employed NSUM and RDS to measure the prevalence of CST in two distinct ways. NSUM was used to develop estimates of both sex workers and CST victim by conducting a survey with a geographically representative sample of 1,036 adults from the general population in Maharashtra asking them how many sex workers and CST victims they know among their local networks. Then, using TLS followed by RDS with adult sex workers in Maharashtra, the proportion of surveyed sex workers who began working in the industry under the age of 18 was estimated. This result was compared with the NSUM estimate of the total number of sex workers and the number of CST victims. Comparing the results from multiple methods, the potential for biases inherent to a single method to affect overall findings was minimized.
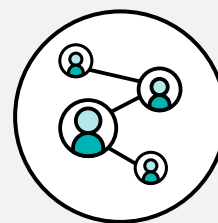
Methodological Approach

Using a phone survey, IST used **NSUM with a geographically representative sample of 1,036 adults** from the general population in Maharashtra

IST used **TLS** to create a random sampling frame from which initial RDS respondents were selected

Following TLS, **RDS** was used with adult sex workers in Maharashtra to estimate the proportion of surveyed sex workers who began working in the industry under the age of 18

Limitations and Considerations

- It is important to note that point estimates may underestimate the overall size of the commercial sex industry in Maharashtra. Potential transmission bias — an individual's lack of awareness or reluctance to acknowledge their contact's affiliation with the sex industry — and response biases due to the stigma of sex commerce and the legal implications of being connected to CST may affect results.

- Since the base population of the study is people who live in Maharashtra, estimating the number of Maharashtra-based buyers in the commercial sex industry will not provide a full estimate of the consumer base of the industry, because customers of the commercial sex industry in Maharashtra will also include migrants, travelers, and other non-state residents.

- Although the TLS-RDS sampling approach for sex workers is methodologically sound, the study team also acknowledges that even rigorous samples may require weighting. In the case of sampling from the population of sex workers in Maharashtra, adequate and current data may not exist to granularly weight the collected responses. This is an unavoidable risk in any study seeking to sample directly from a hidden population.

- As a result of the COVID-19 pandemic, statewide prevalence rates of both sex work and CST may be significantly different (and continue to evolve) from pre-COVID estimates. As part of this study, IST surveyed a sub-sample of sex workers about the effects of the pandemic on the commercial sex trade. Five percent stated they knew someone who had entered the industry due to the COVID-19 pandemic compared to 41% who knew at least one individual who had exited the industry due to the pandemic.

Conclusion and Recommendations for Future Work

Developing a comprehensive counter-trafficking effort is aided by an understanding of the size of the victimized population. Multiple measurements help identify trends over time that can improve the targeting and implementation of interventions, comment on the potential effectiveness of counter-trafficking programs (where appropriate), and provide vital information to decision-makers seeking to best allocate resources to ensure that counter-trafficking programs have a significant and lasting positive impact. The results of the study use several data points and methods to quantitatively examine the scale of child involvement in the commercial sex industry in Maharashtra. Taken together, the results suggest the involvement of child sex trafficking victims in the industry is notable, **indicating a need for multidimensional approaches to reduce the victimization of minors in the state**.

- Given the increasing usage of the internet to facilitate CST, researchers should further profile sex workers in Maharashtra who are primarily engaged in online transactions and advertisement. Without effective methods to identify and counter both venue-based and online trafficking, as well as effective legislation to prosecute traffickers, growth in internet-enabled trafficking is expected.

- Augmenting these findings with similarly targeted and constructed estimates at a later time will help establish trends in CST prevalence in Maharashtra, further evaluate whether (and the extent to which) the networks of adult sex workers and child sex trafficking victims are independent from one another, and assist in further profiling sex workers in Maharashtra, especially those who are primarily engaged in online transactions and advertisement.

- The study findings provide a baseline prevalence estimate of CST in Maharashtra; additional prevalence estimations at later points in time, using similar methods, would allow researchers to help identify trends in CST prevalence, garnering further information needed to support and **promote data-driven decision-making and evidence-informed interventions** by government agencies, NGOs, and other organizations working to combat sex trafficking in the state.