Estimating the Prevalence of Sex Trafficking in a Community
Replication Recommendations
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OVERVIEW

Understanding the prevalence of sex trafficking has been a consistent challenge with profound consequences. Without empirical data, efforts to disrupt trafficking or meet the needs of survivors are subject to public opinion—often either sensationalizing or disregarding the issue—resulting in either too little intervention or too much. Further, anti-trafficking efforts are stymied by this lack of data to guide any strategic public health or justice approach to effectively tackling this issue. Because the scope and nature of trafficking varies from place to place, research at the local level is an important first step toward mobilizing efforts to identify and provide services to trafficking survivors.

Although it may seem intuitive to simply count the number of victims known to service providers or law enforcement, taken alone these counts do not capture the dark figure of victimization (i.e., individuals who have not been formally identified as victims).

Two primary approaches have been used to generate more accurate estimates:

1. **Conduct a victimization survey** with a representative sample of the population of interest (e.g., individuals who have sold or traded sex)

2. **Collect administrative data** on identified victims from multiple independent sources and use statistical modeling techniques to estimate the dark figure, such as multiple systems estimation (MSE)

Each approach has strengths and weaknesses; selecting the most appropriate choice depends on the breadth of research objectives (e.g., interest in measuring more than prevalence), time and financial budgets, technical skills available, and adequate existing data.

This brief provides an overview of a study designed to measure the prevalence of sex trafficking among adults in Sacramento County, California, and an overview of the considerations and resources that may be helpful for those interested in conducting similar studies elsewhere.
This study involved a practitioner-researcher partnership, which was led by the nonprofit Community Against Sexual Harm (CASH) and supported by two research partners: RTI International and the Institute for Social Research at Sacramento State University. It also relied on a participatory action research (PAR) approach, which included ongoing and meaningful involvement of individuals with lived experience in the sex trade through a Survivor Advisory Council. PAR is well suited to working with hidden, marginalized, and stigmatized communities and offers benefits to the community members as well as the rigor of the study.

**STUDY OBJECTIVES**

1. Estimate the prevalence of sex trafficking (ST) in Sacramento County
2. Better understand the nature and scope of ST in Sacramento County
3. Provide data capable of informing anti-trafficking efforts

Using a mixed-methods design, quantitative and qualitative data were collected through 159 semi-structured interviews with individuals involved in commercial sex, as well as from administrative data on identified sex trafficking (ST) victims or survivors from 9 agencies. Administrative data were used to generate an estimate of prevalence, and the interviews were used to gather more contextual information about the lived experience of victims/survivors of ST.
### Community Partner

**CASH**

- Manage the project
- Conduct interviews
- Solicit administrative data
- Oversaw Survivor Advisory Council
  - Provided input on data collection instruments, protocols, incentives
  - Led interviews
  - Engaged in analysis and dissemination

### Research Partners

**RTI**

- Study design and analysis research partner
- Plan interview and administrative data collection
- Create data collection instruments
- Conduct quantitative and qualitative data analysis
- Oversee final report and other deliverables

**ISR**

- Local research partner
- Obtain IRB approval
- Train interviewers
- Manage interview recruitment
- Manage interview screening, tracking, and data entry spreadsheets
- Manage transcriptions
- De-identify data

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**Note. CASH, Community Against Sexual Harm; ISR, Institute for Social Research at Sacramento State University**

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**ADDITIONAL INFORMATION AVAILABLE**

REPLICATION CONSIDERATIONS

Why is the research needed and what do we want to measure?

Policymakers are increasingly calling for better understanding of the prevalence of ST to support decision-making on prevention and intervention strategies, including resources needed to tackle this issue. However, before undertaking a study, it is important to first determine why this specific research is needed (e.g., Is there community interest in this topic? Are there coalitions established or other indicators of community interest? Is research needed to justify grant funding?). Next, establish study objectives to meet this need (e.g., to measure only prevalence, or to capture more nuanced information about service needs). As part of this process, define the specific population of interest, including type of trafficking, specific markets of focus (e.g., street based, massage parlors, internet facilitated), geographic area, and specific population demographics (e.g., age, gender, national origin). This information will help inform decisions about the most appropriate study design.

What general resources are needed to get started?

A local champion or community partner is critical to the success of this type of research because it requires deep understanding of the local context, connections with relevant stakeholders, and the passion and desire to see the study through. Research partners with the relevant expertise and experience in prevalence estimation study design, instrumentation, and data analysis are needed to conduct many of the research activities. If these partners are not local, additional research partners may be needed to support and oversee data collection and data-sharing activities. Because this is research, the study design and protocols will need to undergo a human subjects review by an institutional review board (IRB). 1 Ideally, most universities and research institutions have internal IRBs. Depending on the composition of the team, the study may be reviewed by the research partners’ IRBs or an independent IRB.

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MINIMUM REQUIREMENTS

• Local, connected community-based champion
• Research partners
• Human subjects review
• Survivor-leaders
• Adequate funding and time

Survivor-leaders or people with lived experience will be engaged to help set study objectives, provide input on study design and materials, and assist in interpreting study findings. Finally, the need for funding and time cannot be underestimated. Although the specific resource needs vary by method used, prevalence estimation is never a small undertaking.

What is involved with administrative data and MSE?

MSE requires engaged community partners who are willing and able to provide lists of identified trafficking victims for use in research. Although multiple data sources (e.g., law enforcement, service provider, health care) are typically needed, a longitudinal data set may be used alone if it includes the entire population of interest; however, this application is limited to situations where the population of interest is very narrow (e.g., children involved with child welfare or juvenile justice agencies). Although it is unlikely that each data provider will use the exact same screening tool, MSE assumes that the identification or definition of ST victims is comparable across data sources and does not change substantially over the study period. For example, if one service provider identifies individuals at risk for trafficking whereas another provider screens for actual victimization, those data sets are not comparable.

MSE-DATA REQUIREMENTS

• Lists of identified ST victims or survivors
• Comparable definition of ST across data sources and over the study period
• Direct identifiers that can be used to match individuals across the lists

Because the analysis uses the overlap between individuals on each list to estimate prevalence, the data must include direct identifiers that are consistent across sources. Yet, collecting identifying information on sensitive populations raises legal and ethical concerns and providers may not be willing or able to share full names, birthdates, Social Security numbers, and other information that is needed to link individuals across data sets (or across time). Data-sharing stipulations may also vary across sources. To avoid fully identifying ST victims/survivors, consider creating meta-attributes—identifiers that combine small pieces

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2 In a longitudinal data set, overlap in individuals across time points (e.g., months, or years) is needed.
3 For example, agencies that receive funding under the Violence Against Women Act are prohibited from providing identifying information on their clients, even if their funding is not used for ST clients or services.
of names (e.g., first and last letter of first and last name), year of birth rather than full birthdate, and demographics (e.g., race/ethnicity and gender). This makes matching individuals across data sources less precise, but it has been used successfully in prior studies. These meta-attributes and demographics are the bulk of the data needed for MSE—detailed information about exploitation, service receipt, or medical diagnoses is not needed for prevalence estimation (but these details may be useful for other study objectives). It is also essential to make sure that a member of the proposed research team is familiar with the statistical analyses relevant to MSE or whatever design is ultimately selected.

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Although MSE does not require collecting new data, it still requires a lot of time. Plan for developing data-sharing agreements with each data provider. Agreements may be routed through several levels of approval even when the data provider is interested and motivated to support the study. Moreover, each data provider may have different requirements and a different process for approvals (i.e., it may not be possible to draft one agreement that all parties will sign). **Plan for delays in this process.**

The data will then need to be prepared and extracted by the provider, and the needed time will vary depending on how each provider’s data are structured. For example, a victim service provider that screens for trafficking may be able to easily pull a list of victims/survivors. Law enforcement agencies, which may formally investigate only a handful of cases as ST, may need to manually review case reports for elements of trafficking to provide a more comprehensive list of ST victims. Depending on the preferences and staff capacity of the agency, the research team may need to review the case files.

Because the data will include some identifiers, secure data transfer and storage solutions are needed (e.g., spreadsheets including this information should not simply be emailed). Your research partners will likely have standard institutional processes for encrypting, sharing, and storing sensitive information. Once the data have been received by the research team, the data will undergo processing that includes identification of matches across the meta-attributes and then analysis by a statistician with expertise in MSE and proficiency in statistical software needed for these analyses.

**MSE STUDIES ON SEX TRAFFICKING**

- How many trafficked people are there in Greater New Orleans?[^a]
- Capturing human trafficking victimization through crime reporting[^b]
- Estimating unidentified sex trafficking in the child welfare population[^c]

[^a]: In the Sacramento study, all law enforcement case files involving prostitution and pimping/pandering were reviewed for trafficking indicators, and a subset of case files involving loitering was also reviewed.
What is involved with surveys or interviews?

Conducting surveys or interviews is an intensive process because you are collecting brand-new data. To estimate prevalence, you need to invite a large, representative sample of the population to participate in the study. If you want to learn more about specific issues and do not need the data to estimate prevalence, study design requirements are much less stringent. You can gather rich, nuanced data from a relatively small number of interviews that will be useful in understanding the nature of ST and the experiences and needs of victims in your community.

This method requires developing a survey instrument or interview guide for data collection. An important consideration is the type of questions you want to ask, particularly whether the responses are closed-ended (i.e., yes/no, multiple choice, agreement scales) or open-ended (i.e., participant is provided an opening to respond as they please). Closed-ended questions are frequently used in prevalence research, particularly to ask whether someone has experienced certain types of exploitation. However, open-ended questions allow for a deeper and more nuanced understanding of the respondent’s perspective or experience. There are trade-offs for both surveys and interviews. Well-designed surveys are generally quicker and easier for participants, whereas interviews offer opportunity for more detailed and nuanced learning about a topic.

SURVEY/INTERVIEW COMPONENTS

- Instrument development
- Administration mode
- Sampling design and recruitment
- Administering surveys/interviews
  - Screening, scheduling, and logistics
  - Interviewers who can gain rapport with the population
- Data analysis
- Trauma-informed practices for all research staff
Existing instruments can serve as a starting point for selecting trafficking indicators to include in a survey. For example, there has been a recent effort to standardize how trafficking is operationalized in research, and survey questions have been proposed. However, any existing items may need to be adapted to ensure that the questions are culturally appropriate, use language most familiar to the local population, and include the entire population of interest. For example, prior studies may have been conducted in a different cultural setting (e.g., developing countries) or have focus on only a subset of the population of interest (e.g., cis-gendered females, domestic minors). This review is important because different segments of the population may use different language (e.g., cis-gendered women may use the term “pimp” to refer to a trafficker, whereas transgender women may use “madam”). This difference can be easily overlooked, so pay special attention to ensure that question content and wording are as inclusive of the population of interest as possible. Survivor-leaders can play a critical role here in reviewing existing instruments, suggesting revisions, and developing new questions that capture topics of local interest or concern. Also, consider translation needs—do you plan to limit the study to English speakers, or should others be included?

Decisions on question type and content will help inform the mode of survey instrumentation—self-administered or interviewer-administered. If the questions are primarily multiple choice, a survey that individuals complete themselves using a paper or web-based instrument has the advantage of being less resource intensive for the research team and potentially less time-consuming for the respondent to complete. However, this approach assumes that the population is literate, speaks English, and is willing to complete the survey without support and encouragement, and it does not present opportunities for an interviewer to build rapport or recognize when a participant is upset or triggered. If the research objectives include more exploratory topics where multiple-choice responses are not feasible, an interview is the best option because it does not require respondents to write or type lengthy responses and allows interviewers to probe for additional detail or clarification.

To estimate prevalence, you need to decide how you will select and invite a representative sample of the population to participate in the study. There are a variety of ways to do this, and the best method will depend on the population you would like to study. For example, if you are interested in kids attending high school, you may consider a school-based sample, which would require selecting a random sample of schools in your area. The entire school, or a subset of classes or students, could be invited to participate.

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5 Developing a representative sample requires developing a sampling frame that enumerates all individuals in your target population. If not every individual in the population has an equal probability of being selected into the study, a sampling statistician must be involved to create sampling weights that adjust for any unequal probability of selection.
For other populations that may be harder to find or access, you may use respondent-driven sampling (RDS), which involves recruiting an initial set of individuals who are known to be in the target population and then asking them to invite other eligible people in their social networks to participate.⁶ You will need to survey or interview a relatively large number of people to generate a reliable prevalence estimate.

SURVEY STUDIES USING DIFFERENT SAMPLING PLANS

- School-based sample: *Prevalence of trading sex among high school students in Minnesota*<sup>[e]</sup>
- RDS: *Commercial sexual exploitation of children in NYC*<sup>[f]</sup>
- Time-location sampling: *Victims without a voice: Measuring worst forms of child labor in the Indian state of Bahir*<sup>[g]</sup>

What kind of analysis will be necessary?

The key statistical skills and expertise needed to generate a prevalence estimate will depend on the sampling plan and prevalence estimation strategy that guide an individual study. When you are planning for data collection, identify an analyst who has the necessary expertise for the project and can join the research team. The appropriate analytic technique appropriate for an individual study can be determined by a seasoned statistician, who can also provide insight about how to interpret and report on study findings. Interview data and responses to open-ended questions on surveys will require qualitative analysis expertise and likely the use of specialized qualitative analysis software, such as NVivo or Dedoose.

Regardless of what types of data you collect, once analysis has been conducted, the research team can collaborate on how best to report on these findings in ways that are effective for and digestible by key community audiences.

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⁶ RDS designs do not require an enumerated sampling frame the way a representative survey does, but they may require the development of weights to correct for unequal probability of selection across the population.
What supports are necessary for data collection?

**Logistics support for data collection.** Before beginning your interviews or surveys, it is important to have conversations about the logistics of handling data and a clear plan in place that is consistent with each partner’s institutional requirements, especially in terms of handling sensitive personally identifiable information (sometimes called PII). With multiple organizations involved in a research project, it is helpful to have a well-documented and well-understood plan for how data will be handled from the time they are collected, including any necessary transmission, storage, or sharing plans. The data that you collect can be sensitive and require enhanced security protocols. These should be agreed upon by all research partners, and all protocols and platforms should be in place before data collection begins. These decisions will likely need to be included in any IRB submission materials.

**Interviewers who can gain rapport with participants.** Whether collecting information via surveys or interviews, it is important that the people involved in recruiting for the study, explaining it, and—when applicable—administering interviews can establish rapport with the population of focus. For interviews in particular, it is helpful for interviewers to be familiar with language that may be common among participants but less well understood outside of the study population. Hiring people with lived experience of trafficking and commercial sex to conduct interviews may be a helpful way to gain rapport with study participants.

**Support for study participants.** Research on ST inherently involves content that is sensitive and can be upsetting. Recognizing that study participants with involvement in commercial sex or ST have diverse lived experiences, it should be expected that some of these experiences may include physical or sexual violence, intimate partner violence, coercion or exploitation, homelessness, racism, and other systemic oppressions or injustices. Plan to incorporate trauma-informed practices to support the needs of study participants.

Avoid distressing a study participant in the course of a survey or interview. Reiterate the optional nature of the questions throughout the data collection. Train data collectors to recognize when someone may be experiencing emotional distress, and make sure they have prepared resources ready to use if this should occur.

**Support for research staff.** Similarly, understand that because of the sensitive nature of the research content, all research staff—interviewers, analysts, coordinators, and anyone else with access to study data—may feel affected by their engagement in the study. Research team leadership should take the time to learn about and implement trauma-informed practices in research.

**Including people with lived experience on your research team benefits the entire project from beginning to end. It can be especially crucial for people with lived experience to serve as interviewers, as they may be more readily able to establish rapport with study participants.**

**ADDITIONAL RESOURCES ON TRAUMA-INFORMED RESEARCH PRACTICES**

- [Guidelines to incorporate trauma-informed care strategies in qualitative research](#)
- [Trauma and trauma-informed researchers](#)
- [Trauma-informed qualitative research: some methodological and practical considerations](#)
CONCLUSION

Which methods are right for my study?

Both MSE and survey/interview research designs have strengths and weaknesses. In general, MSE is less resource intensive; however, it requires that certain data are already available in administrative data sets. Surveys, particularly semistructured interviews, will require more time and money for the data collection and analysis process, but they provide greater flexibility as to which research questions can be answered.

Establishing answers to a few questions will help determine the most appropriate method for approaching a prevalence study. The first steps are to establish exactly what you are trying to measure and to define that very clearly. Do you wish to measure ST, labor trafficking, or both? Adults, minors, or both? Domestic victims, foreign-born victims, or both? Do you wish to measure the prevalence of trafficking exploitation in a specific time frame, such as within the last year, or in a person's lifetime? Clearly articulate what you wish to measure.

CONSIDERATIONS FOR STUDY METHOD SELECTION

- What are you trying to measure?
- What are you hoping to learn?
- Are adequate existing data available?
- What types of research support are available?
- What are your time and financial constraints?

PREVALENCE STUDY DESIGN RESOURCES

- Advances in measurement: A scoping review of prior human trafficking prevalence studies and recommendations for future research
- Methods of prevalence estimation in modern slavery: An introductory overview
Next, think about what you’re hoping to learn. Do you want to learn only about the prevalence of human trafficking in the region? Or are you hoping to also learn more about the nature and context of trafficking among the population in your sample? If you wish only to establish the prevalence of trafficking, methods that rely on existing data may be adequate for your study. If you have other research questions that you would like to answer, you may need to employ methods that involve collecting your own data (whether through surveys or interviews).

Then, consider whether the population that you wish to focus on, and their status as a victim/survivor (as you’ve defined for the study), is well represented in existing administrative data. Will you be able to identify lists of potential or identified victims from community agencies? If the answer is no, then MSE is probably not an option for this study.

Data availability and research support availability are also important considerations. Once you have a data collection strategy identified, it is important to ensure the presence of the resources that you are depending on, from administrative data from community agencies to the staffing resources you might need to conduct surveys or interviews, collect and maintain data, and conduct data analysis.

Other considerations for selecting the right method for your study include time and financial constraints. Each prevalence estimation method will involve a different timeline, and the costs associated with different strategies can range widely.

**MSE IS APPROPRIATE WHEN...**
- The primary study objective is estimating prevalence
- There are multiple independent lists of identified trafficking victims OR there is a single longitudinal data source that includes the entire population of interest
- Trafficking victimization is similarly defined or identified the same way in all lists or over the entire longitudinal period
- The data providers are willing and able to include identifiers to match individuals across lists
- The population of interest is well represented in these lists
- Data processing and analytical expertise is available

**SURVEY RESEARCH IS APPROPRIATE WHEN...**
- The primary objective is estimating prevalence, another topic of interest, or both
- Existing administrative data are not available or sufficient for conducting MSE
- There are solid connections with the population of interest that can be used to sample and recruit study participants
- Study design, instrumentation, and analytical expertise is available
- Project resources can cover the costs of compensating participants for their time
Are there any other tips and recommendations for a successful prevalence study?

1. **Spend time to learn about the landscape of community stakeholders as early as possible in the project startup.**
   Research the landscape of service providers, coalitions, activist or advocacy nonprofits, and local policies or statutes affecting the target population. This landscape will be helpful in identifying local champions and key community partners. Communities may have histories of intragroup partnerships or roadblocks. Understanding this landscape will aid in successful data sharing and study participant recruitment, and it may support developing research goals that align with community needs.

2. **Understand the target population before finalizing a data collection strategy.** Be open to learning about the target population from multiple different stakeholder groups in the community, including people with lived experience, service providers, coalitions, and other local individuals who have knowledge about the target population. Gathering information about the target population, including different market sectors or subpopulations, is important to ensuring broad representation among study participants. While it may not be possible for studies to be completely inclusive of all subpopulations, learning as much as possible about the landscape of the population of focus will enable helpful reflections about limitations or caveats to findings if certain market sectors or subpopulations are not represented in the study sample.

3. **Engage people with lived experience early and consistently throughout the research process.** Meaningful engagement and consultation of people with lived experience will enhance your data collection instrument, sampling design and strategy, troubleshooting when data collection challenges arise, and interpretation of findings. A PAR approach is ideally suited for this type of engagement and for research on hidden, stigmatized, and marginalized populations. Skilled trauma-informed facilitators should lead this engagement—whether that is on the side of the community partners, the researchers, or a joint effort. All research staff and project stakeholders should be attuned to the potential for harmful power dynamics and tokenism if care is not taken in establishing intentional, clear, and compensated roles for engaging people with lived experience.

4. **Consider pilot testing your study or build in flexibility for pivoting during the data collection process, if necessary.**
   Regardless of how well-thought-out a study plan is, sometimes errors in assumptions cannot be identified until data collection has begun. This is particularly true of recruitment and referral, which can be absolutely essential components of many prevalence estimation studies. Pilot testing your study, or building in the flexibility to make changes if necessary, can help circumvent these issues.
Resources


