



PROGRAM ON FORCED MIGRATION AND HEALTH
HEILBRUNN DEPARTMENT OF POPULATION AND FAMILY HEALTH

**USING THE NEIGHBORHOOD METHOD TO MEASURE
VIOLENCE AND RAPE IN ETHIOPIA**

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TABLE OF CONTENTS

Executive Summary	3
I. Introduction.....	5
II. Objectives	5
III. Training and Preparation.....	6
IV. Methodology	6
V. Findings.....	9
A. Information on Sample Population	9
B. Challenges Facing Women	10
C. Frequency of Violence and Rape.....	11
D. Perpetrators of Physical Violence.....	13
E. Perpetrators of Rape.....	16
F. Reporting and Disclosure.....	17
G. Location of Incidents	20
VI. Analysis of Findings	22
A. Rates of Violence and Rape in Refugee Camps as Compared to Host Community	22
B. Rates of Violence and Rape in Newer Refugee Camps as Compared to Older Refugee Camps	23
C. Rates of Violence and Rape in Flight as Compared to in Refugee Camps....	23
VII. Challenges and Limitations.....	24
A. Interviewer Inexperience	24
B. Sexual Assault.....	25
C. Unintended Consequences	25
D. Reliability Analysis.....	26
E. Additional Reliability Analysis.....	27
F. Inter-rater Reliability	29
VIII. Recommendations and Conclusion.....	30
Appendix 1: Protocol	32
Appendix 2: Interview Guide.....	37
Appendix 3: Consent Form.....	43

Executive Summary

From May 27 to July 10, 2008 Columbia University's Program on Forced Migration and Health and the International Rescue Committee (IRC) Ethiopia conducted a population-based survey to quantify the magnitude of physical violence and rape against women and girls in two Somali refugee camps in which IRC is operational and one of the surrounding host communities. Over the course of six weeks, the research team conducted 453 one-on-one household interviews in Kebribeyah camp, Aw Barre camp, and Aw Barre town. This survey was conducted using the Neighborhood Method, an innovative research methodology that utilizes both direct interviewee data about respondents' own experiences as well as indirect data captured from respondents about the experiences of respondents' family members and neighbors. As this research methodology is still being piloted, the indirect data captured and reported in this study needs to be further verified.

Interviews focused on two types of violence: physical violence and rape. The data show that across survey areas, approximately 40% of women and girls had experienced at least one act of physical violence within the last 18 months and approximately 20% of women and girls had been raped within the last 18 months. When disaggregated by age, more than 50% of women 18 years of age or older had experienced physical violence and more than one-third of women 18 years or older had been raped. Of those under 18, more than 20% had experienced physical violence and less than 10% had been raped. As only women over the age of 18 were interviewed, all data on girls below the age of 18 are secondary reports. As such, the experiences of females under 18 need to be further verified.

Across all samples, the vast majority of violence, including rape, was perpetrated by family members. Husbands and other intimate partners were responsible for perpetrating the largest amount of physical violence and rape. More than one-third of all physical violence was perpetrated by husbands and other intimate partners. More than 70% of rape was perpetrated by husbands and other intimate partners. Other family members were responsible for perpetrating more than 25% of all physical violence. Among other family members, fathers and brothers were responsible for perpetrating the largest amount of violence. Strangers were responsible for perpetrating less than 10% of all physical violence and less than 15% of all rape.

High levels of reporting were captured for both physical violence and rape. Of those who experienced physical violence, between 98% and 99% of survivors told someone about the incident and, of those who experienced rape, approximately 50% of survivors told someone about the incident. For both physical violence and rape, reporting to informal mechanisms, such as family and friends, occurred at much higher rates than reporting to formal mechanisms, such as the police, courts, or hospitals. Of those who experienced physical violence and told someone about the incident, more than 50% told their family and/or friends or neighbors that they had experienced physical violence while less than 10% reported incidents of physical violence to the police, courts, or the hospital.

The overwhelming majority of physical violence and rape occurred in the home. Greater than 75% of both physical violence and rape occurred in the home. Approximately 10% of rape occurred in the street or the market. Between 2% and 4% of rape occurred in the forest or while women were collecting firewood.

No significant difference was found in rates of physical violence and rape reported by those living in the two refugee camps as compared to those living in the host community. No meaningful difference was found in rates of physical violence and rape reported by those who were living in the newer camp of Aw Barre as compared to those living in the older camp of Kebribeyah. Length of time in the camp did not impact the rates of physical violence and rape reported by females surveyed.

In Aw Barre camp, rates of violence and rape during women's journeys from Somalia to Ethiopia were compared to rates of violence and rape in the camp setting. There was an 80% increase in the rate of rape reported by respondents and females in respondents' households during their time in the camp as compared to while females were in or fleeing Somalia. Similarly, among respondents and females in respondents' households, there was a 30% increase in the rate of physical violence reported during their time in the camp as compared to while females were in or fleeing Somalia. Females in Aw Barre camp are at greater risk of experiencing physical violence and rape in the camp setting than in flight from Somalia to Ethiopia.

Follow-up interviews were conducted with 79 of the original respondents in Aw Barre camp four weeks after the original interviews to learn about any adverse consequences of having been interviewed. Sixteen of 79 women reported experiencing violence from a family member as a result of participating in the interview. Additional research is needed to investigate and understand the potential for adverse consequences when speaking with women about GBV and other potentially sensitive topics. As a result of the findings from this study, the protocol for ensuring the safety of participants in future neighborhood method studies has been changed. Although we do not believe that the negative experiences of participants was a direct result of asking respondents to report on their neighbors, future research protocols of the neighborhood study have been designed to further protect neighbors' anonymity.

The findings of this study demonstrate that women and girls across sample areas are experiencing physical violence and rape at alarming rates. The domestic, 'familiar' nature of physical violence and rape across survey areas must be addressed and programming and services must be further developed for survivors of domestic violence. Additionally, more must be done to strengthen systems of formal reporting and to develop safe and supportive reporting mechanisms within the police, courts, governmental, and nongovernmental structures.

I. Introduction

The current situation in Somalia has been described as the worst humanitarian crisis in the world. Since 1991, Somalia has been embroiled in conflict and chaos as warring parties struggle to gain control of the country. There remains no formally recognized government within Somalia and militias continue to vie for power. According to the United Nations High Commission for Refugees (UNHCR), as a result of continued conflict and instability, as of 2007, over 1 million Somalis have been internally displaced and over 400,000 have become refugees¹. Ethiopia has long served as a host country for those fleeing civil unrest in Somalia. Currently three refugee camps are operational along the Ethiopian-Somali border: Kebribeyah, Aw Barre, and Sheder. Kebribeyah, the oldest of the camps, was established 18 years ago. Aw Barre camp is just over one year old. Sheder camp was opened in May 2008.

Over the past fifteen years, there has been increased attention in the humanitarian community regarding the ways in which women and girls are affected by conflict, violence, and displacement. Due to factors including but not limited to stigma and fear of retribution, which lead to under-reporting, it remains exceedingly difficult to obtain reliable data regarding the magnitude and nature of gender-based violence in conflict and displacement settings.

It is in this context that the International Rescue Committee and Columbia University's Program on Forced Migration and Health embarked on a project to measure the magnitude of violence facing women and girls in two of the Somali refugee camps in which IRC is operational as well as one of the surrounding host communities.

II. Objectives

The objectives of this research were to:

- Provide assessment information regarding the magnitude of gender-based violence against females in two refugee camps in which IRC is operational and one of the surrounding host communities;
- Compare rates of gender-based violence against females living in refugee camps with rates of gender-based violence against females living in the host community;
- Compare rates of gender-based violence against females in the newer camp of Aw Barre with rates of gender-based violence against females in the older camp of Kebribeyah;
- Collect comprehensive community data on the nature of gender-based violence concerns to inform program design and improve program efficacy;
- Investigate reporting and disclosure trends; and
- Establish a baseline against which change over time could potentially be measured.

¹ United Nations High Commission for Refugees (2007) Country Information, Somalia, Available: <http://www.unhcr.org/country/som.html> Accessed October 12, 2008.

The time frame covered was December 2006 through the day of the interview (approximately 18 months). An 18-month recall period was used to ensure that the recall period began at one clear point in time that everyone could recall similarly. Several memorable events occurred in the same month 18-months before the survey began which is why that point in time was selected as the beginning of the recall period and why the recall period was 18 months long. By ensuring that everyone's recall period began at the same memorable point in time, interviewers could ensure that all respondents were reporting events during the same time period.

The interview covered two main types of physical violence, which for the purposes of this study, were defined as the following:

- Physical violence: any act of physical violence; and
- Rape: the intentional penetration of another person's vagina, anus, mouth or any other opening without the individual's consent.

III. Training and Preparation

Prior to the Research Coordinator's arrival in Ethiopia, discussions were held between several of Columbia University's faculty and staff and key staff in IRC's GBV Technical Unit, as well as their Research, Evaluation and Learning unit. The methodology was discussed and refined in these discussions. IRC Ethiopia shared information on their programs and on characteristics of their operational areas, which informed the sampling strategy and content of the questionnaire.

A pool of potential interviewers was recruited and trained in GBV basic concepts by IRC GBV staff prior to the Research Coordinator's arrival. Final selection of the interviewers was conducted by the Research Coordinator and Ms. Stark. The Research Coordinator, in collaboration with Dr. Les Roberts and Ms. Lindsay Stark, trained six female interviewers in data collection and interviewing methods. The training took place over the course of five days at IRC's office in Jijiga. The training included extensive role playing and practice to increase the quality and consistency of data collection. Training was followed by two days of field testing on the outer edge of Kebribeyah town. Once training and field testing were completed, data collection began in the refugee camps of Kebribeyah and Aw Barre and in the town of Aw Barre. Data collection lasted from June 11 through July 10.

IV. Methodology

Overview. The research team used the "Neighborhood Method," a methodology developed by Columbia University and previously piloted in collaboration with Christian Children's Fund in Uganda in 2006² and in collaboration with the International Rescue

² Stark, L., Roberts, L., Acham, A., Boothby, N., & Ager, A. (2008). Measuring violence against women amidst war and displacement in northern Uganda. Manuscript submitted for publication.

Committee in Liberia in 2007³. With this methodology, interviewers conduct one-on-one household interviews with respondents. Interviewers ask respondents not only about their own experiences, but also about the experiences of all females in their household as well as all females in the households of their four closest neighbors. In this way, the neighborhood method is considered a quicker, cheaper method to capture information on a much larger number of females than would be possible if respondents were asked only about their own experiences.

Sampling. Systematic random sampling was used to select households in each of the three survey areas. Based on the size of the population, a confidence level of 95 percent, an assumed GBV incidence rate of 10 percent, a design effect of 2, and an average of 3 women per household, using EpiInfo, the Columbia University team identified the minimum number of interviews necessary in each survey area to be 73. Through these interviews information would be gained not only on the respondent herself, but also on the other female members of her household and her four closest neighbors' households.

Host community. Initial population figures of the town of Aw Barre were provided by IRC Ethiopia. The Columbia University team then mapped the town, roughly estimating the number of households they observed. This estimated number of households was then divided by 73 to obtain the sampling interval. The Research Coordinator used a random number sequence within the sampling interval to select the starting household in each area. The interviewers then went to every twentieth household following that first house. If a woman over 18 was not available or not willing to participate, the interviewer went to the house next to this one. If there were more than three unavailable households/refusals in a row, she would begin the counting interval over again at the next house.

Refugee camps. Initial population figures for the refugee camps in both Kebribeyah and Aw Barre were obtained from UNHCR. In Kebribeyah camp, the estimated number of households was then divided by 73 to obtain the sampling interval. The Research Coordinator used a random number sequence within the sampling interval to select the starting household. In Kebribeyah camp, the interviewers then went to every eighteenth household following that first house. In Aw Barre camp, with the collaboration of the Administration for Refugee and Returnee Affairs (ARRA) of the Ethiopian government, the Research Coordinator identified 85 blocks within the camp. Each block consisted of 16 households. The interviewers sampled one house from each block in Aw Barre camp, thus, using a sampling interval of 16 in Aw Barre camp. The Research Coordinator used a random number sequence within the sampling interval to select the household to be interviewed within each block.

Interview. The interviewer approached the house and asked for a woman who was 18 or older who could talk to her. If the woman who initially answered the door was 18 years

³ Warner, A., Roberts, L., Stark, L., Lehman, H., Boothby, N., & Ager, A. (2008). Use of "Neighborhood Method" to assess violence against women and girls in Liberia. Manuscript submitted for publication.

or older and she consented, interviewers interviewed the woman who answered the door. If the woman who answered the door was younger than 18, interviewers asked to speak with a woman 18 years or older and, if that woman consented, interviewed that woman. No effort was made to randomize among the women over 18 in the household. The interviewer then explained the purpose of the interview, the anticipated length, the assurance of anonymity and the need for privacy. Once the woman understood and gave her informed verbal consent, the interview began. If the woman refused or was unable to speak to the interviewer privately, the interviewer thanked her for her time and moved to the next house.

The interviewer first asked for basic demographic information (age, marital status, and length of time living in the community) about the respondent, other females in her household, her four closest neighbors, and all the females in those four households. She then asked the woman to mention some of the biggest challenges facing women and girls in her community. The interviewer would then transition to questions about her four closest neighbors' experiences with physical violence. The interviewer made clear that the time frame they would be covering was December 2006 to the present day. First she asked about the first neighbor and the other females living in that household – whether any of them experienced physical violence. If an incident had occurred, the interviewer asked for information about the perpetrator (relationship to survivor), whether or not the survivor had reported the incident, if so, to whom, and where the incident occurred. Interviewers recorded additional details in narrative form. Once the interviewer obtained all the necessary information about the first incident, she would then ask if that first neighbor experienced physical violence from anyone besides that first perpetrator. If so, the interviewer would obtain the same information about this second incident (relationship of perpetrator to survivor, whether or not the survivor had reported the incident, if so, to whom, and where the incident occurred). This process was then repeated for the respondent and all the females in the respondent's household. After this was completed, the interviewer would repeat the same process asking about experiences with rape among all the females in the households of her four closest neighbors, and among all the females in the respondent's household, including the respondent.

Interviews averaged 50 minutes in length. Privacy and confidentiality were primary concerns. Interviewers also took care to ensure participants that there would be neither penalties nor rewards for their participation. Participants who indicated that they were survivors of GBV were offered referral to IRC for support.

Recall Period in Aw Barre Camp

The neighborhood methodology relies on a respondent's ability to accurately report on the experiences of her neighbors. In Aw Barre town and Kebribeyah camp, the research team utilized an 18 month recall period when interviewing respondents about their experiences and the experiences of their neighbors. Since individuals had relocated either to Aw Barre town or Kebribeyah camp more than 18 months before the interview, it was reasonable to ask them to report on the experiences of their families and their neighbors over the last 18 months. At the time of this survey, however, Aw Barre camp had been

open for 12 months and respondents had relocated to the camp anywhere between 1 and 12 months prior. As such, the research team adjusted their recall period when surveying Aw Barre camp. In Aw Barre camp, the research team would ask respondents to report on the experiences of their neighbors since the neighbors' household had moved to the camp. However, when the interviewer asked the respondent about her own experiences and the experiences of females in her own household, she would ask about the last 18 months. Thus, the recall period for respondents and females in the respondents' households included time before the respondent and her family relocated to Aw Barre camp while the recall period for neighbors and neighbors' households in Aw Barre camp included only the time that they had been in the camp. In order to maintain consistency of length of recall periods across survey areas, the rates of physical violence and rape for Aw Barre camp were calculated by using only data from respondents and females in respondents' households while rates of physical violence and rape in Kebribeyah camp were calculated using data from the entire sample.

Kebribeyah Camp

83 interviews were conducted in Kebribeyah refugee camp. Interviews were conducted from July 24 through June 26.

Aw Barre Town

76 interviews were conducting in Aw Barre town. Interviews were conducted between June 17 and June 21.

Aw Barre Camp

Aw Barre Camp was sampled twice. An initial 84 interviews were conducted between June 11 and June 14. As this was one of the first sites sampled, there was concern among the Columbia University team that the rates obtained during this first sampling may have been artificially low due to interviewer inexperience. To account for this, the Research Coordinator and the interviewers returned to Aw Barre Camp between June 30 and July 3 to resample half of the camp. Significantly higher rates of physical violence and rape were reported during this resampling phase. As such, the Research Coordinator proceeded to resample all of Aw Barre Camp. During this resampling, an additional 85 interviews were conducted between June 30 and July 3. Analysis of Aw Barre Camp is conducted based on these later 85 interviews.

V. Findings

A. Information on Sample Population

In Kebribeyah camp, the participation rate was 83% (16 empty houses and 0 refusals). In Aw Barre camp, the participation rate was 81% (19 empty houses and 1 refusal). In Aw Barre town, the participation rate was 70% (24 empty houses and 9 refusals).

Table 1, Profile of Sample Population

	Aw Barre camp	Aw Barre town	Kebribeyah camp
Sample Size	1184	1102	1264

▪ <i>Respondents</i>	85	76	83
▪ <i>Others in respondents' household</i>	212	165	220
▪ <i>Neighbors and others in neighbors' households</i>	887	861	961
Average age of respondent	39	39	40
Age Distribution of Respondents			
▪ 18 – 25 Years	9%	9%	11%
▪ 26 – 35 Years	32%	32%	27%
▪ 36 – 45 Years	41%	45%	31%
▪ 46 – 55 Years	15%	12%	29%
▪ 56 Years or older	2%	3%	2%
Marital Status (18 or older)			
▪ <i>Single</i>	18%	25%	25%
▪ <i>Married</i>	56%	53%	55%
▪ <i>Divorced</i>	11%	11%	7%
▪ <i>Widowed</i>	15%	11%	13%

Very few cases of girls married before the age of 18 were captured in this survey. As only women over the age of 18 were interviewed, all data on girls below the age of 18 are secondary reports. In Kebribeyah camp, of the 598 girls under 18 in our sample, 2 (0.33%) were married. In Aw Barre town, of the 538 girls under 18 in our sample, 2 (0.37%) were married. In Aw Barre camp, of the 623 girls under 18 in our sample, 4 (0.64%) were married. These data contradict the anecdotal reports that our research team received regarding the high prevalence of early marriage. Community members as well as interviewers asserted that early marriage (marriage before the age of 18) is widespread among the populations surveyed. Additional research is necessary to determine the prevalence of early marriage among the populations surveyed.

B. Challenges Facing Women

Table 2, Biggest Challenge Facing Women

	Aw Barre camp	Aw Barre town	Kebribeyah camp
Gender-Based Violence*	89%	91%	81%
No money/job/food	6%	7%	11%
Men Chewing Khat	2%	1%	5%
Drought	4%	1%	4%

*Gender-Based Violence was most frequently described by women as beating, hitting, rape, or violence.

Table 3, GBV Mentioned as Challenge for Women

	Aw Barre camp	Aw Barre town	Kebribeyah Camp
Yes	96%	99%	87%

At the beginning of the interview respondents were asked, “What are the biggest challenges facing women in this community?” Interviewers recorded all challenges that women mentioned. The first challenge that women mentioned was recorded as the biggest challenge. The researcher developed categories subsequent to data collection. As seen in Table 2, more than 80% of women surveyed mentioned gender-based violence as the biggest challenge facing women in their community. As seen in Table 3, more than

86% of women surveyed mentioned gender-based violence as one of the challenges facing women in their community. Gender-based violence was most frequently described by women as beating, hitting, rape, or violence.

C. Frequency of Violence and Rape

Table 4. Incident Frequency, December 2006-June 2008

	Aw Barre camp* (n=297)	Aw Barre town (n=1102)	Kebribeyah camp (n=1264)
General physical violence	48% (95% CI 42.2-53.5)	44% (95% CI 40.0 – 45.9)	39% (95% CI 36.6-41.2)
▪ <i>Under 18</i>	34%	29%	24%
▪ <i>18 and older</i>	66%	56%	53%
Rape	19% (95% CI 13.0-23.0)	23% (95% CI 20.5 – 25.5)	20% (95% CI 17.8-22.2)
▪ <i>Under 18</i>	2%	7%	3%
▪ <i>18 and older</i>	40%	42%	35%

*Data for respondents and members of respondents' households only.

Table 5: Increased Risk of Violence and Rape for Females 18 Years or Older as Compared to Females Less Than 18 Years Old

	Ratio of Violence among Females 18 or Older compared to Females Less than 18	Ratio of Rape among Females 18 or Older compared to Females Less than 18
Aw Barre Camp	5.21 (95% CI 4.00 - 6.78)	21.88 (95% CI 12.83 - 37.81)
Aw Barre Town	3.34 (95% CI 2.58 - 4.33)	11.05 (95% CI 7.55 – 16.24)
Kebribeyah Camp	3.43 (92% CI 2.68 – 4.40)	15.25 (95% CI 9.31 – 25.25)

Respondents were asked questions in two categories of violence: physical violence and rape. The wording of these questions can be found in Appendix II. As seen in Table 4, across all survey areas, more than 50% of those 18 years or older were reported to have experienced physical violence. In contrast, between 24% and 34% of those under 18 were reported to have experienced physical violence. Females 18 years or older are at increased risk of experiencing both physical violence and rape as compared to females less than 18 years old. As seen in Table 5, across survey areas, females 18 years or older were at least 3 times more likely to have experienced physical violence and at least 11 times more likely to have been raped than females less than 18 years of age. As only women over the age of 18 were interviewed, all data on girls below the age of 18 are secondary reports. As such, the experiences of females under 18 need to be further verified.

Taken together, physical violence was reported as having been experienced by at least 39% of women and girls in each of the sample populations. In Kebribeyah camp, 39% (95% CI 36.3 - 41.2) of females experienced physical violence, in Aw Barre town 44% (95% CI 40.0 – 45.9) of females experienced physical violence and in Aw Barre camp 48% (95% CI 42.3 – 53.5) of females experienced physical violence. Women commonly reported incidents of physical violence resulting from conflicts with their

husbands over money, food, or the purchase and/or use of khat. Women often reported that when they would ask their husbands for money to purchase groceries, their husbands would respond that they did not have any money. Women would then ask their husbands where she should get money for their family or how she should provide food for the family. This conflict over finances and the provision of food and other essentials for the family would often escalate into physical violence. Women also reported incidents of physical violence being connected to the consumption of khat. The khat plant is widely grown in Ethiopia and Somalia. The leaves are chewed and used as a stimulant. In 1980, the World Health Organization classified khat as a drug of abuse that can produce moderate psychological dependence.⁴ Women often reported that their husbands would spend money on khat and, as a result, there would not be enough money for food for the family. Refugee women also reported that their husbands would trade their food rations for khat. When women would question their husbands regarding their khat consumption or their budgeting of money for khat in lieu of food, women would report that such conversations often escalated into physical violence. Additionally, women reported experiencing physical violence when they did not fulfill their domestic obligations. Women often reported experiencing physical violence as a result of not preparing meals for their husbands or not washing their husbands' clothes.

As seen in Table 4, more than one-third of those 18 years or older reported having been raped while less than 10% of those under 18 were reported to have been raped. While such data suggest that the frequencies of rape differ for those 18 years and older as compared to those under 18, experiences of rape for those under 18 were obtained exclusively through secondary report. As such, the experiences of females under 18 need to be further verified.

Taken together, rape was reported by at least 19% of women and girls in each of the sample populations. In Kebribeyah camp 20% (95% CI 17.8 – 22.2) of females reported having been raped, in Aw Barre town 23% (95% CI 20.5 – 25.5) of females reported having been raped, and in Aw Barre camp 19% (95% CI 13.0-23.0) of females reported having been raped. The most commonly reported context in which women were raped was after having had an argument and/or having been beaten by their husbands. After an argument or incident of violence perpetrated by their husbands, women would often report that their husbands would want to have sex with them. When women would refuse, their husbands would rape them.

⁴ World Health Organization (2006). Thirty-Fourth Expert Committee on Drug Dependence, Assessment of Khat, Downloaded on March 20, 2009 from: http://www.who.int/medicines/areas/quality_safety/4.4KhatCritReview.pdf

D. Perpetrators of Physical Violence

Figures 1-3, Perpetrators of Physical Violence

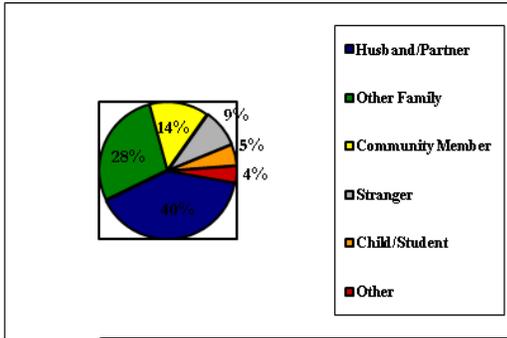


Figure 1, Perpetrators of Physical Violence, Aw Barre Camp

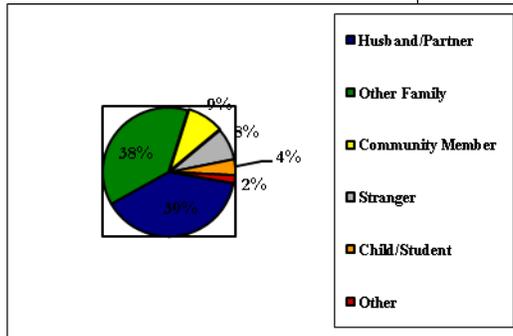


Figure 2, Perpetrators of Physical Violence, Aw Barre Town

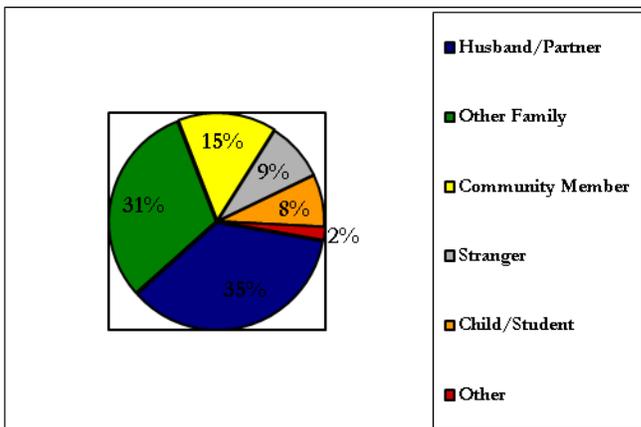


Figure 3, Perpetrators of Physical Violence, Kebribeyah Camp

When respondents reported having experienced physical violence, interviewers would then ask respondents, “Who did it?” This question was asked to gather information regarding the relationship between perpetrators and survivors. Respondents’ answers were recorded and categories were developed by the research team upon subsequent analysis of the data. The overwhelming majority of physical violence was perpetrated by husbands or other family members. In all sample populations, fully two-thirds of physical violence was perpetrated by an intimate partner or other family member. In each of the

sample populations, husbands and other intimate partners were reported as perpetrating the largest percentage of physical violence. At least 35% of all physical violence in each sample population was perpetrated by husbands and other intimate partners. In all sample populations, physical violence was perpetrated by strangers less than 10% of the time.

Table 6, Other Family Members as Perpetrators of Physical Violence, All Ages

	Aw Barre Camp	Aw Barre Town	Kebribeyah Camp
Brother	4.1%	5.7%	5.9%
Brother-in-law	3.9%	4.2%	2.7%
Father	7.0%	13.2%	9.3%
Mother	1.2%	2.7%	1.6%
Mother-in-law	1.2%	1.7%	0.9%
Other family member	2.5%	2.7%	2.5%
Sister	1.6%	0.4%	0.3%
Sister-in-law	0.6%	1.1%	1.3%
Son	1.8%	1.4%	1.4%
Uncle	2.9%	4.6%	3.6%

In all sample populations, other family members were the second largest category of perpetrators of physical violence. Other family members were reported to perpetrate between 28% and 38% of all physical violence reported. As seen in Table 6, in all sample populations, among other family members who perpetrated physical violence, fathers were the most common perpetrators of physical violence. Fathers perpetrated between 7% and 13% of all physical violence. In all sample populations, among other family members who perpetrated physical violence, brothers were second most common perpetrators of physical violence. Brothers perpetrated between 4% and 5% of all physical violence. Brothers-in-law perpetrated between 2% and 4% of all physical violence reported. Uncles perpetrated between 2% and 4% of all physical violence reported.

Table 7, Perpetrators of Physical Violence against Females Under 18

	Aw Barre Camp n=54	Aw Barre Town n=155	Kebribeyah Camp n=147
Husband/Partner	1.9%	3.9%	0.7%
Teacher	7.4%	3.9%	3.4%
Other Family Member	46.3%	63.9%	49.7%
Neighbor/Community Member	7.4%	8.4%	14.3%
Child/Student	31.6	8.4%	23.1%
Stranger	5.6%	11.0%	8.8%

Table 8, Perpetrators of Physical Violence against Females 18 and Older

	Aw Barre Camp n=120	Aw Barre Town n=322	Kebribeyah Camp n=348
Husband/Partner	67.5%	63.7%	56.0%
Teacher	0%	0%	2.0%
Other Family Member	14.2%	18.3%	16.1%

Neighbor/Community Member	6.7%	7.8%	14.4%
Child/Student	1.7%	2.2%	2.3%
Stranger	10.0%	7.8%	8.9%

Table 9: Increased Risk of Violence Perpetrated by Other Family Members of Females under 18 Years of Age as Compared with Females 18 Years or Older

	Ratio of Violence Perpetrated by Other Family Members Among those Less than 18 as compared to Females 18 or Older
Aw Barre Camp	1.06 (95% CI 0.71 – 1.59)
Aw Barre Town	1.50 (95% CI 1.02 – 2.20)
Kebribeyah Camp	1.92 (95% CI 1.34 – 2.76)

As seen in Table 7, among those who were under 18 and had experienced physical violence, other family members were the largest category of perpetrators. Other family members were responsible for perpetrating over 45% of physical violence experienced by females under 18 years of age. As seen in Table 9, in Aw Barre Town and Kebribeyah Camp, females under 18 years of age were at least 1.5 times more likely to experience violence perpetrated by other family members as compared to females 18 years or older. Strangers were responsible for perpetrating between 5% and 11% of physical violence experienced by females under 18 year of age.

As seen in Table 8, among those who were 18 years or older and had experienced physical violence, at least 56% of physical violence was perpetrated by husbands or other intimate partners. Other family members were reported to have perpetrated between 14% and 18% of physical violence experienced by those 18 years or older. Strangers were responsible for perpetrating between 7% and 10% of violence reported by those 18 or older.

While such data suggest that the distribution of perpetrators of violence against those 18 years and older differs as compared to the distribution of perpetrators of violence against those under 18, all data for those under 18 were obtained through secondary report. As such, the experiences of females under 18 need to be further verified.

E. Perpetrators of Rape

Figures 4-6, Perpetrators of Rape

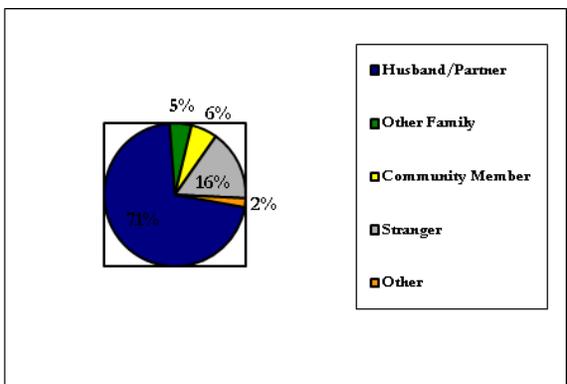
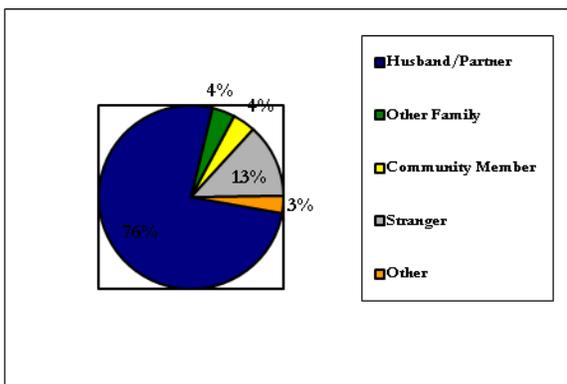


Figure 4, Perpetrators of Rape, Aw Barre Camp

Figure 5, Perpetrators of Rape, Aw Barre Town

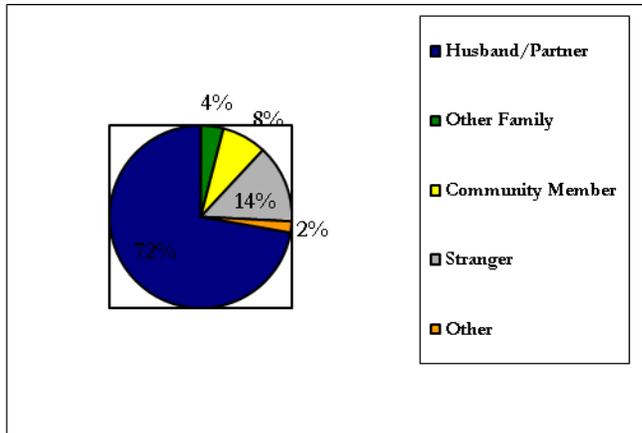


Figure 6, Perpetrators of Rape, Kebribeyah Camp

Table 10, Perpetrators of Rape against Females Under 18

	Aw Barre Camp n=5	Aw Barre Town n=38	Kebribeyah Camp n=20
Husband/Partner	0%	15.8%	10.0%
Teacher	0%	0%	0%
Other Family Member	40.0%	13.2%	5.0%
Neighbor/Community Member	0%	13.2%	35.0%
Child/Student	0%	0%	5.0%
Stranger	60.0%	52.6%	45.0%
Other	0%	5.3%	0%

Table 11, Perpetrators of Rape against Females 18 and Older

	Aw Barre Camp n=52	Aw Barre Town n=237	Kebribeyah Camp n=228
Husband/Partner	88.5%	81.4%	79.4%
Teacher	0%	0.4%	1.3%
Other Family Member	3.8%	4.2%	3.5%
Neighbor/Community Member	0%	3.4%	5.3%
Child/Student	0%	0.4%	0.4%
Stranger	7.7%	9.7	10.1%

Similarly, when respondents reported having experienced rape, interviewers would then ask respondents, “Who did it?” In each of the sample populations, husbands and other intimate partners were reported as perpetrating the largest percentage of rape. In all sample populations, husbands and other intimate partners perpetrated the overwhelming majority of rape that was reported. Over 70% of all rape in each sample population was perpetrated by husbands or other intimate partners. Strangers perpetrated between 13% and 16% of rape across the sample populations.

As seen in Table 10, among those who were under 18 and who had been raped, strangers were the largest category of perpetrators. Strangers were responsible for perpetrating

between 45% and 60% of rape experienced by females under 18 years of age. As seen in Table 11, of those who were 18 years or older and had been raped, husbands were responsible for perpetrating between 79% and 88% of all rape. Strangers were responsible for perpetrating between 7% and 10% of rape reported by females 18 and older.

While such data suggest that the distribution of perpetrators of rape against those 18 years and older differs as compared to the distribution of perpetrators of rape against those under 18, all data for those under 18 were obtained through secondary report. Again, it is recommended that the experiences of females under 18 are further validated.

F. Reporting and Disclosure

By Incident.

If the respondent reported that an incident of physical violence has occurred, the interviewer would then ask, “Did you tell anyone?” If the respondent replied that she had told someone, the interviewer would then ask, “Who did you/she tell?” Between 98% and 99% of those who reported experiencing physical violence told someone about the incident. Between 44% and 52% of those who experienced rape told someone about the incident. That is, virtually everyone who experienced physical violence told someone about the incident and approximately half of those who were raped told someone about the incident. Such high levels of reporting of both physical violence and rape indicate that discussion of experiences with GBV is common among women in these communities. The Neighborhood Method is based on the hypothesis that individuals can accurately and reliably report on their neighbors’ experiences with violence. Our findings indicate that disclosure to informal networks is indicated to be quite high, lending support to this hypothesis.

Reporting Audience

Table 12, Reporting Audience, Physical Violence

	Aw Barre camp	Aw Barre town	Kebribeyah camp
Family Member	35%	55%	45%
Friend/Neighbor	78%	69%	70%
Police	6%	7%	7%
Court	1%	0%	1%
Hospital	2%	4%	4%
UNHCR	2%	0%	1%
Teacher	3%	2%	4%
ARRA	0%	0%	4%
IRC	0%	0%	1%

Table 13, Reporting Audience, Rape

	Aw Barre camp	Aw Barre town	Kebribeyah camp
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Family Member	52%	55%	50%
Friend/Neighbor	34%	26%	37%
Police	15%	32%	22%
Hospital	8%	28%	19%
UNHCR	3%	0%	6%
ARRA	14%	0%	5%

Across all sample populations, informal reporting of incidents of physical violence to family, friends, or neighbors was much more common than formal reporting of experiences of physical violence including reporting to the police, court, hospital, UNHCR, ARRA, or IRC. Of those who experienced physical violence and who told someone about the incident, more than two-thirds of individuals told either a friend or neighbor. More than one-third of individuals told a family member about having experienced physical violence. Of those who experienced physical violence and who told someone about the incident, less than 10% who told reported the incident to the police, court, hospital, UNHCR, ARRA, or IRC.

Similarly, informal reporting of incidents of rape to family, friends, or neighbors was much more common than formal reporting of incidents of rape to the police, court, hospital, UNHCR, ARRA, or IRC. Of those who had been raped and who told someone about the incident, at least 50% told a family member. More than 25% of those who had been raped and who told someone told a friend or neighbor. Between 15% and 22% of those who had been raped and told someone in turn reported the incident to the police.

By Perpetrator.

Table 14, Reporting Trends for Physical Violence, By Perpetrator, Kebribeyah Camp

	Family	Friend/Neighbor	Court	Police	Teacher	Hospital	UNHCR	ARRA	IRC
Husband, n=199	35%	90%	2%	3%	0%	5%	0%	2%	0%
Other Family Member, n=166	64%	61%	0.6%	4%	0%	0%	0%	0%	0%
Neighbor/Community Member, n=79	24%	63%	0%	16%	0%	11%	4%	20%	4%
Child/Student n=40	63%	30%	0%	8%	43%	3%	0%	5%	0%
Stranger, n=48	31%	77%	0%	17%	0%	8%	6%	4%	0%

Table 15, Reporting Trends for Physical Violence, By Perpetrator, Aw Barre Camp

	Family	Friend/Neighbor	Court	Police	Teacher	Hospital	UNHCR	ARRA	IRC
Husband, n=193	22%	89%	3%	2%	0%	1%	0.5%	3%	0%
Other Family Member, n=133	44%	76%	0%	5%	0%	2%	0%	0%	0%
Neighbor/Community Member, n=69	38%	78%	0%	14%	0%	3%	0%	1%	0%
Child/Student, n=22	95%	0%	0%	0%	68%	9%	0%	0%	0%

Stranger, n=45	22%	78%	0%	13%	0%	9%	0%	11%	0%
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Table 16, Reporting Trends for Physical Violence, By Perpetrator, Aw Barre Town

	Family	Friend/Neighbor	Court	Police	Teacher	Hospital	UNHCR	ARRA	IRC
Husband, n=209	51%	87%	0.5%	4%	0%	2%	0%	0%	0%
Other Family Member, n=191	59%	64%	0%	4%	0%	2%	0%	0%	0%
Neighbor/Community Member, n=42	45%	52%	0%	29%	0%	7%	0%	0%	0%
Child/Student n=20	80%	10%	0%	0%	50%	0%	0%	0%	0%
Stranger, n=42	60%	52%	0%	19%	0%	17%	0%	0%	0%

Table 17, Reporting Trends for Rape, By Perpetrator, Kebribeyah Camp

	Family	Friend/Neighbor	Court	Police	Hospital	UNHCR	ARRA	IRC
Husband, n=70	56%	47%	0%	4%	3%	0%	0%	0%
Other Family Member, n=9	89%	11%	0%	44%	11%	0%	0%	0%
Neighbor/Community Member, n=18	17%	22%	0%	61%	50%	17%	17%	0%
Stranger, n=30	37%	33%	0%	30%	43%	17%	13%	0%

Table 18, Reporting Trends for Rape, By Perpetrator, Aw Barre Camp

	Family	Friend/Neighbor	Court	Police	Hospital	UNHCR	ARRA	IRC
Husband, n=49	57%	45%	0%	0%	0%	0%	0%	0%
Other Family Member, n=7	29%	43%	0%	29%	29%	0%	0%	0%
Neighbor/Community Member, n=10	20%	30%	0%	60%	20%	0%	40%	0%
Stranger, n=30	50%	23%	0%	23%	13%	10%	33%	0%

Table 19, Trends for Rape, By Perpetrator, Aw Barre Town

	Family	Friend/Neighbor	Court	Police	Hospital	UNHCR	ARRA	IRC
Husband, n=61	66%	38%	0%	2%	0%	0%	0%	0%
Other Family Member n=12	58%	8%	0%	50%	42%	0%	0%	0%
Neighbor/Community Member n=16	38%	25%	0%	63%	44%	0%	0%	0%
Stranger, n=35	49%	11%	0%	63%	60%	0%	0%	0%

Reporting audiences varied by identity of perpetrator. Women whose husbands or other intimate partners perpetrated physical violence were most likely to have reported the incident to a friend or neighbor. Over 87% of those whose husbands perpetrated physical

violence and who told someone, told a friend or neighbor. The next most common reporting audience among those whose husbands perpetrated physical violence and who told someone was other family members. More than 20% of women whose husbands perpetrated physical violence and who told someone told a family member. In contrast, less than 5% of women whose husbands perpetrated physical violence and who told someone, told the courts, the police, the hospital, UNHCR, ARRA, or IRC. Individuals who experienced violence perpetrated by a community member or neighbor or by a stranger reported the highest rates of reporting to the police, hospital, UNHCR, or ARRA.

Of those women who were raped by their husbands or other intimate partners, the largest percentage of women reported the incident to a family member. The highest rates of reporting to the police occurred when a woman or girl was raped by a community member or neighbor.

G. Location of Incidents

Table 20, Location of Physical Violence

	Aw Barre camp	Aw Barre town	Kebribeyah Camp
Home	74%	81%	74%
Street/Market	10%	9%	13%
School	7%	5%	7%
Forest/Collecting Firewood	2%	4%	4%
Other	4%	0.6%	0.6%
Collecting Water	3%	0%	2%

Table 21, Location of Rape

	Aw Barre camp	Aw Barre town	Kebribeyah camp
Home	86%	84%	85%
Street/Market	6%	8%	9%
Forest/Collecting Firewood	3%	7%	5%
Other	6%	1%	1%

The overwhelming majority of incidents of both physical violence and rape occurred at home. At least 74% of all incidents of physical violence and 84% of all incidents of rape occurred at home. Approximately 10% of all incidents of physical violence occurred in the street or the market. Less than 5% of all incidents of physical violence occurred while women or girls were in the forest or collecting firewood. Less than 10% of all incidents of rape occurred in the street or the market. Similarly, less than 10% of all incidents of rape occurred while women were in the forest or collecting firewood.

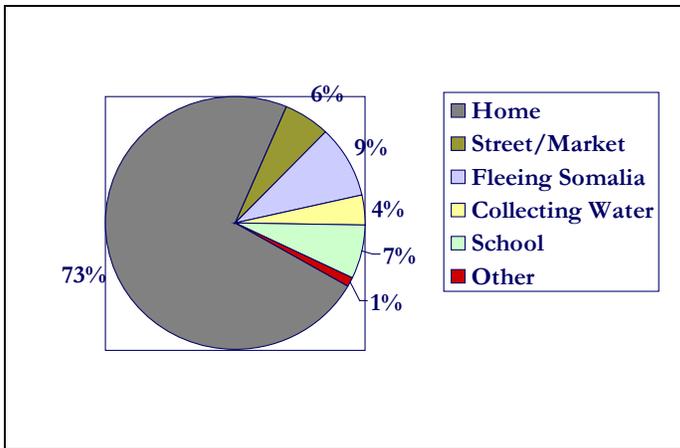


Figure 7, Location of Incidents of Physical Violence in Aw Barre Camp among Respondents and Females in Respondents' Households

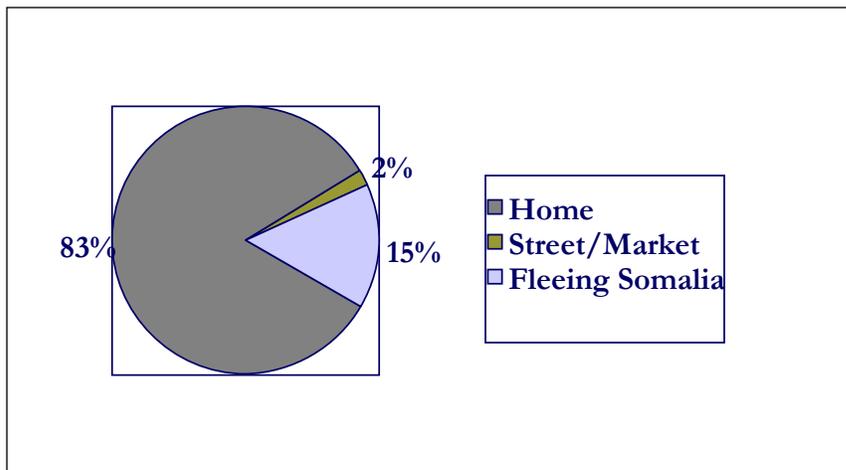


Figure 8, Location of Incidents of Rape in Aw Barre Camp among Respondents and Females in Respondents' Households

Since Aw Barre camp had only been open for 12 months at the time of the survey, the recall period for respondents and females in respondents' households included time before the respondent and her family relocated to Aw Barre camp and included the respondent's and her family's journey from Somalia to Ethiopia. This was different than the other settings and allowed for an analysis of violence and rape in flight as opposed to in the camp setting. As seen in Figure 7, 9% of incidents of physical violence reported by respondents or females in respondents' households in Aw Barre camp occurred while the individual was fleeing Somalia. As seen in Figure 8, 15% of incidents of rape reported by respondents or females in respondents' households in Aw Barre camp occurred while the individual was fleeing Somalia.

VI. Analysis of Findings

A. Rates of Violence in Refugee Camps as Compared to Host Community

This population survey was conducted to quantify the magnitude of violence perpetrated against females in two Somali refugee camps and one of the surrounding Ethiopian host communities. The survey was also conducted to learn whether the reported rates of physical violence and rape perpetrated against females living in the refugee camps differed significantly from the reported rates of physical violence and rape violence perpetrated against females living in the host community. Informal conversations between the research coordinator and members of both refugee camps and the host community indicated that the prevailing belief across survey areas was that rates of GBV were significantly higher in the refugee camp than in the host community. This belief is not supported by the data. As previously illustrated in Table 4, no significant difference was found in rates of physical violence and rape reported by those who were living in the two refugee camps as compared to those living in the host community. The prevailing belief that rates of GBV are higher in the refugee camps than in the host communities may be a reflection of the stigma that is associated with refugee status and not a reflection of higher rates of GBV. This belief may also reflect the assumption that women in conflict-affected populations experience higher rates of GBV than women in populations that have not be affected by conflict.

B. Rates of Violence in Newer Camp as Compared with Older Camp

This survey was also conducted to compare rates of physical violence and rape against females living in the newer refugee camp of Aw Barre with rates of physical violence and rape against females in the older refugee camp of Kebribeyah. Kebribeyah Camp was established 18 years ago while Aw Barre camp is just over one year old. The research team was interested to learn whether the rates of physical violence and rape would differ in these two camps given the different lengths of time the camps had been in existence and the different lengths of time people had been living in the camps. As previously illustrated in Table 4, no significant difference was found in rates of rape reported by those who were living in the newer camp of Aw Barre as compared to those living in the older camp of Kebribeyah. The rate of physical violence in Aw Barre camp appears significantly higher than the rate of violence in Kebribeyah camp. The research team believes this is a result of the different samples that were used to calculate the rates of physical violence and rape in the two camps and is not a true reflection of higher rates of physical violence in Aw Barre camp. Given the length of time Aw Barre camp had been in existence at the time of the survey, experiences of respondents and females in respondents' households were reported over an 18-month recall period while the experiences of neighbors and females in neighbors' households were reported only since their arrival in the camp. In order to maintain consistency of length of recall periods across survey areas, the rates of physical violence and rape for Aw Barre camp were calculated by using only data from respondents and females in respondents' households while rates of physical violence and rape in Kebribeyah camp were calculated using data from the entire sample. As seen in Figure 9, across survey areas, reported rates of physical violence against respondents and females in respondents' households were higher than were reported rates of physical violence against neighbors and females in neighbors' households. Thus, the research team concludes that the higher rate of violence

in Aw Barre camp reflects the sample used to calculate the rate and is not a true reflection of higher rates of violence in Aw Barre camp.

C. Rates of Violence in Flight as Compared to Rates of Violence in Refugee Camps

Our recall period in Aw Barre camp for respondents and females in the respondents' household included time before the respondent and her family relocated to Aw Barre camp, and, thus, included the respondent's and her family's journey from Somalia to Ethiopia. As seen in Figure 7, in Aw Barre camp, 9% of incidents of physical violence reported by respondents or females in respondents' households occurred while the individual was fleeing Somalia. As seen in Figure 8, 15% of incidents of rape reported by respondents or females in respondents' households in Aw Barre camp occurred while the individual was fleeing Somalia. Rates of violence and rape during women's journeys from Somalia to Ethiopia were compared to rates of violence and rape in the camp setting. There was an 80% increase in the rate of rape reported by respondents and females in respondents' households during their time in the camp as compared to while females were in or fleeing Somalia. Similarly, among respondents and females in respondents' households, there was a 30% increase in the reported rate of physical violence during their time in the camp as compared to while females were in or fleeing Somalia. These findings demonstrate that females in Aw Barre camp are at greater risk of experiencing physical violence and rape in the camp setting than in flight from Somalia to Ethiopia. While this seems counterintuitive to the global trend of females' risk of experiencing gender-based violence increasing during flight, such data are supported by informal conversations that the Research Coordinator had with women in both refugee camps surveyed. When asked about their experiences in flight, women would often explain that the soldiers they encountered during their journey from Somalia to Ethiopia were 'well-behaved' and, thus, violence and rape was not a primary concern for them during their journey from Ethiopia to Somalia. These findings are also supported by the overwhelmingly domestic nature of both physical violence and rape in these communities. Additionally, flight from Somalia to the Ethiopia Somali Region may not be representative of typical emergency flight situations. Flight from Somalia generally occurred more slowly and over a longer period of time than is typical when refugees are fleeing immediate danger.

Table 22, Relative Risk of Experiencing Physical Violence and Rape in the Camp Setting as Compared to in Flight from Somalia to Ethiopia

Type of GBV	Relative Risk
Physical Violence	1.3 (95% CI 1.2 – 1.5)
Rape	1.8 (95% CI 1.6 – 2.0)

VII. Challenges and Limitations

A. Interviewer Inexperience.

One of the major challenges faced by the research team was the inexperience of the interviewing team - both with issues of gender-based violence as well with data collection. The research team invested a significant amount of time in training the interviewers at the beginning of this project in both GBV-related issues as well as data collection skills. Issues such as consistency in coding, effective interviewing techniques, and general knowledge regarding GBV-related issues were paramount during training. This survey was originally intended to capture information on four populations. However, after the team surveyed the first two sites, Kebribeyah town and Aw Barre camp, the research team conducted a full-day refresher training for the interviewers. Subsequent to this retraining, the interviewers surveyed Aw Barre town and Kebribeyah camp. The rates of physical violence and rape that were captured in these latter two sites were significantly higher than the rates captured in the first two sites. There was concern among the research team that the rates obtained during the sampling of the first two sites were artificially low due to interviewer inexperience. To account for this, the Research Coordinator and the interviewers returned to Aw Barre Camp to resample half of the camp. Significantly higher rates of physical violence and rape were reported during this resampling phase. As such, the Research Coordinator proceeded to resample all of Aw Barre Camp. Analysis of Aw Barre Camp has been conducted based on this second sampling of the camp. As a result of the resampling of Aw Barre Camp, the research team believes that the relatively low rates obtaining during the sampling of Kebribeyah town, the first site surveyed, are also artificially low due to interviewer inexperience. Logistical considerations prevented the research team from resampling Kebribeyah town later in the project. As such, the rates obtained in Kebribeyah town have not been included in this report as it is believed that they do not accurately reflect the experiences of women and girls in Kebribeyah town.

B. Sexual Assault

This project originally intended to capture information on three types of violence: physical violence, sexual assault, and rape. Sexual assault was operationalized as: any harmful or hurtful physical act that is of a sexual nature, as interpreted by the survivor. The research team believed it was critical to develop a definition that allowed for the wide range of incidents that one could categorize as sexual assault. The research team also believed that, within the boundaries of the definition of sexual assault, the research team would defer to the survivor or respondent first, and secondly to the interviewer to decide whether or not an incident would be coded as sexual assault. As a result, inconsistency of coding of incidents of sexual assault across interviewers proved to be an ongoing difficulty. Additionally, the exceedingly large range of types and severity of incidents coded as sexual assault, ranging from a man touching a woman's hand without consent to attempted rape, allows for limited usefulness of this data. As such, data captured within the code of sexual assault has not been included in this report. The research team's experience attempting to capture incidence of sexual assault highlights that the neighborhood methodology may be better suited to capturing incident rates of more precise, concrete types of events and definitions. The neighborhood methodology may be less suitable for incidents with less precise definitions, such as sexual assault.

C. Unintended Consequences

In order to understand any unintended consequences that resulted from having conducting these interviews, the Research Coordinator and the interviewers returned to Aw Barre camp between July 8 and July 10 to conduct follow-up interviews. During this period, they conducted 79 interviews. These interviews were conducted with the original sample of respondents, approximately four weeks after the original interviews had been conducted. During these interviews women were asked about any positive or negative consequences that they attributed to being interviewed for this project.

Sixteen of 79 women reported experiencing violence from a family member as a result of participating in the interview. Of these 16 women, 6 had reported experiencing violence during the original interview while 10 of these 16 women had not reported experiencing violence during the original interview. Additionally, 6 of 79 women reported neighbor disputes involving violence as a result of participating in the interview and 6 of 79 women reported non-violent neighbor disputes as a result of participating in the interview. Upon discovering the unintended consequences of conducting this survey, the research coordinator immediately shared this information with both her research team in New York as well as IRC staff in Ethiopia and in New York. Conversations focused mainly on explaining to the research team and IRC staff the unintended consequences that had occurred, discussing appropriate steps that had been taken to minimize such consequences, and discussing appropriate next steps for the research team and IRC staff in response to this information. After discussion with IRC GBV programming staff and in line with IRC policy, it was decided that IRC would offer support to women who sought support from IRC, but would not send social workers to the houses of women who reported experiencing adverse consequences but did not seek support from IRC.

Similar findings of adverse consequences were not discovered during a population survey in Sri Lanka. In 2008, the neighborhood methodology was used in Sri Lanka to capture rates of physical violence and rape against women and girls. During this survey, the research team asked 130 women who participated in the survey about positive or negative consequences of having been interviewed. 0 out of 130 women reported adverse consequences. Clearly, women's experiences of participating in the survey in Ethiopia differed greatly from women's experiences in Sri Lanka. The reasons for this difference are not known. Additional research is needed in order to investigate and understand the potential for adverse consequences when using the neighborhood methodology to measure prevalence of sexual violence.

D. Reliability Analysis

The Neighborhood Method is based on the hypothesis that individuals can accurately and reliably report on their neighbors' experiences with violence. In order to test this hypothesis and to increase our understanding of the patterns of knowledge among women and neighbors in communities, the Research Coordinator conducted 23 matched interviews in Kebribeyah camp in which two neighbors were asked to report on two common neighbors. These 'matched' interviews helped the research team to more fully

understand patterns of knowledge and disclosure among neighbors and the reliability of individuals' reports of their neighbors' experiences with violence and rape. Among these 23 matched interviews, a total of 74 incidents of physical violence were reported. Forty-two out of 74 (57%) incidents of physical violence 'matched', or were simultaneously reported by two neighbors about the same third neighbor. Thirty-five incidents of rape were reported among the matched interviews. Fifteen of these 35 incidents of rape (43%) 'matched' or were reported by both neighbors about the same third neighbor. As seen in Table 23 in both cases, the kappa statistic shows fairly good agreement (according to Landis & Koch⁵, 1977). Compared to 1.645 at alpha = .05, both kappas are highly significant, and the research team concludes the agreement is greater than one would expect from chance alone. These rates of matching indicate, however, that it is likely that rates of violence and rape captured in this survey may underestimate the true magnitude of violence and rape occurring in these communities. The potential that these data underestimate the true magnitude of violence and rape does not diminish the value of using of these data to monitor trends over time, if we assume that in future years the same degree of under-reporting will occur. These matching data also highlight one of the great weaknesses of the neighborhood methodology: the reliance on reports of individuals about their neighbors' experiences. These matching data indicate that only about half the time two neighbors reported the same experiences about the same third neighbor. Such information questions the extent to which neighbors can accurately and reliably report on the experiences of their neighbors. Despite such limitations, however, the neighborhood method remains one of the most promising methodologies for capturing rates of highly sensitive and consequently underreported experiences, such as GBV.

Table 23, Kebribeyah Camp, Kappa statistic for Matched Data

Type of GBV	Kappa statistic
Physical Violence	0.5051 (z=5.78, p<.001)
Rape	0.5057 (z=5.79, p<.001)

E. Additional Reliability Analysis

The reliability of the method was also analyzed by comparing response rates among the different types of sample populations, which include:

1. Respondent
2. Other females in respondents' households
3. Neighbors
4. Other females in neighbors' households

It is thought that the first and third categories – respondents and neighbors- are comparable, as they are all women at least 18 years of age. The second and fourth categories – other females in respondents' households and other females in neighbors' households – consist of females across all age groups.

⁵ Landis, J. R. & Koch, G. G. (1977) The measurement of observer agreement for categorical data. *Biometrics*, 33, 159 -174.

The figures below illustrate the frequencies for physical violence and rape by type of sample population. The higher percentages of reported physical violence and rape among respondents and neighbors as compared to members of respondents' households and members of neighbors' households can be explained by the large number of household members under 18 in the latter two categories.

Across all sample populations, women reported higher rates of physical violence for themselves and females in their households than for their neighbors and females in their neighbors' households. This is similar to what was found during a previous study which used the neighborhood methodology conducted by Columbia University and IRC in Liberia in 2007 in which women reported higher rates of violence for themselves and their households than for their neighbors and their neighbors' households.

Higher rates of reporting of physical violence and rape among respondents and respondents' households suggest that women may be better able to report on incidents of violence in their own households than in households of their neighbors. If this theory is true, it is likely that rates of physical violence and rape calculated for the entire population may underestimate actual rates of physical violence and rape across the entire population. It is also possible that these rates of reporting represent respondents' discomfort and/or reluctance to report on their neighbors' experiences with incidents of physical violence and rape. This discomfort may be based in societal and cultural norms of privacy and disclosure. It is likely, however, that neither of these theories fully explains the distribution observed in Figures 9 and 10. Based on the matched data discussed previously, if one were to assume that the higher rates of reporting of incidents among respondents and members of respondents' households were due to lack of knowledge of events in neighbors' households, one would expect a 50% difference in rates between respondents and neighbors and between respondents' households and neighbors' households, similar to what was observed in the matched data. Since the difference in rates is less than 50%, it is likely that respondents are either underreporting on incidents occurring in their own households or that respondents do not know about all incidents occurring in their own households. Further research is needed to understand the reporting trends that have been observed.

As seen in Figures 9 and 10, reported rates of rape were more similar across sample types than reported rates of physical violence. More similar rates of reporting for rape may be due to the perception that rape is a more severe type of violence than physical violence. As a result, incidents of rape may be easier for respondents to recall and report on both within their own household as well as within the households of their neighbors. More research is necessary to understand women's decisions and patterns regarding disclosure.

Figure 9, Physical Violence Frequencies by Sample Type

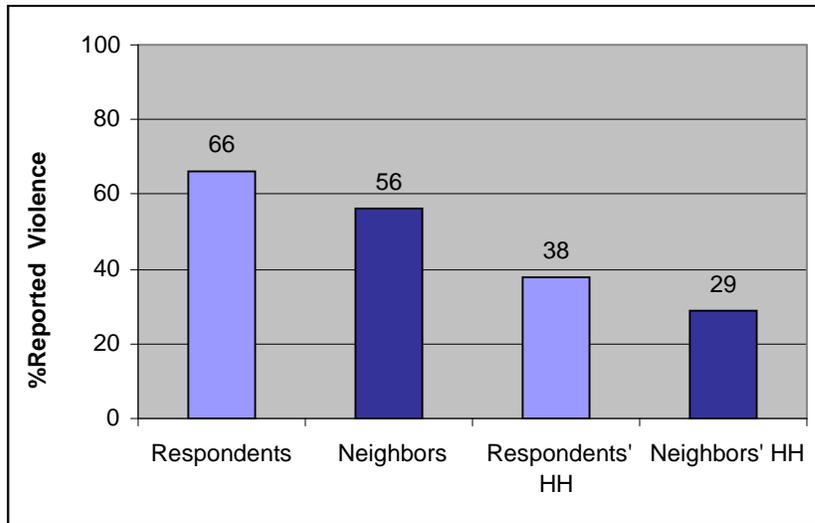
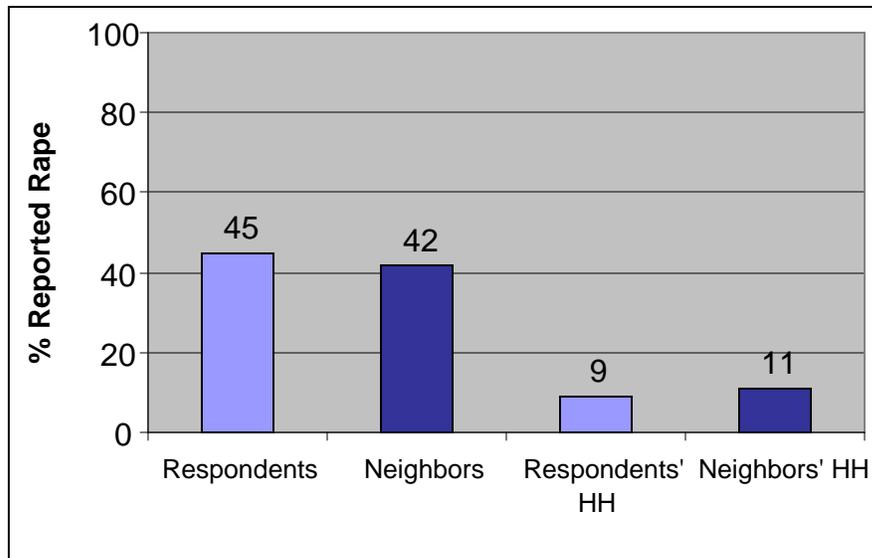


Figure 10, Rape Frequencies by Sample Type



D. Inter-Rater Reliability

Another strategy to determine the internal validity of the data gathered was to compare overall frequencies of physical violence and rape for each of the six interviewers. Rates

across interviewers were broadly similar. Interviewer 1 was the outlier among the team, reporting higher rates of both physical violence and rape than all other interviewers. Interviewer 1 was the only interviewer in the team with previous and extensive experience working on issues related to gender-based violence as well as conducting sensitive interviews. It is believed that the previous experience of Interviewer 1 affected the way in which she both collected and coded data for this survey.

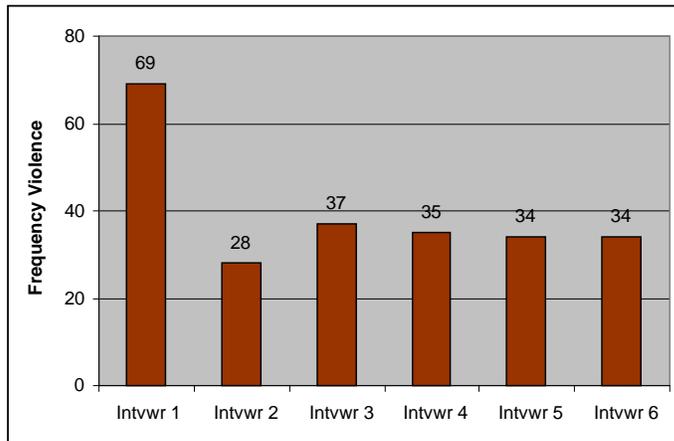


Figure 11, Inter-Rater Reliability, Physical Violence

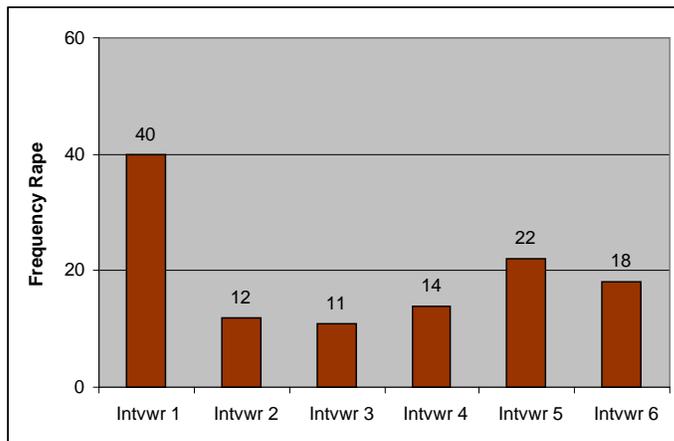


Figure 12, Inter-Rater Reliability, Rape

VIII. Recommendations and Conclusions

The findings of this study demonstrate that women and girls across all sample areas are experiencing physical violence and rape at alarming rates. The overwhelming majority of physical violence and rape was perpetrated by husbands and other family members. Similarly, the overwhelming majority of violence and rape occurred within the home. Among women 18 years or older, husbands and other intimate partners perpetrated the largest amount of physical violence and rape against women 18 years or older.

Programming must address such high rates of domestic violence. Services to support women in violent relationships and to help women improve their ability to keep themselves safe within the context of their families and marriages are essential.

Within family violence is common among females under 18 years of age as well. In Aw Barre Town and Kebribeyah Camp, females under 18 years of age are at least 1.5 times more likely to have experienced physical violence from a family member as compared to women 18 years or older. Programming and services must address the particular needs and experiences of survivors of physical violence who are under the age of 18. While still domestic in nature, it is likely that the experiences of females under 18 year of age with intra-family violence is substantially different than the experiences of women 18 years or older. A greater understanding of the role that violence plays within families across all age groups is necessary.

Through the narratives captured in the course of this survey, several common triggers of physical violence emerged. Across survey areas, stress related to limited financial resources, the consumption of khat, and expectations regarding domestic responsibilities were reported as common triggers of physical violence within families. While this survey begins to identify specific contexts within which violence is common, additional research is necessary. Further understanding of the specific contexts in which physical violence occurs can increase the appropriateness and effectiveness of programming and services for survivors.

The risk of females experiencing physical violence and rape while in the camp setting was significantly higher as compared to when they were traveling from Somalia to Ethiopia. More research is needed into the factors that put females at increased risk of violence and rape in the camp setting as well as ways to establish and maintain refugee camps in order to ensure the safety and security of refugee women and girls.

The overwhelming majority of rape reported was perpetrated by a husband or an intimate partner. Women were less likely to report rape perpetrated by a husband or other intimate partner than rape perpetrated by a stranger. Additional programming and education regarding the relatively common experience of marital rape as well as programming to create safe and supportive spaces to discuss the experience of marital rape may begin to shift such trends in both the frequency and reporting of marital rape.

While more than half of women and girls reported incidents of physical violence and rape, the largest amount of reporting was of an informal nature to family, friends or neighbors. Rates of reporting to more formal mechanisms such as the police, courts, hospitals, IRC or UNHCR remained low, particularly when the perpetrator was known to the survivor. More must be done to strengthen formal systems of reporting and to develop safe and supportive reporting mechanisms within the police, courts, and governmental and non-governmental structures. Additionally, programming should be explored regarding ways to collaborate with the informal networks of reporting that are already being utilized.

APPENDIX 1: PROTOCOL

Protocol for Measuring Gender-Based Violence in Ethiopia: “The Neighborhood Method”

SUMMARY:

The CU/International Rescue Committee (Ethiopia) team will interview a random sample of women in the areas where IRC is conducting GBV programming. The interview team will collect data from adult females on the female head of household, other females in this household, her 4 closest neighbors, and all of the females in these households. By collecting data on these four different sample populations, we will be able to:

- Contribute valuable regarding the magnitude of GBV in two Somali refugee camps and one of the surrounding host communities.;
- Collect comprehensive community data on the nature of GBV concerns in intervention communities to inform program design and improve program reach and efficacy in these communities; and
- Establish a baseline against which change over time could be measured.

SAMPLING STRATEGY:

A minimum sample of 300 respondents will be selected in each district. This number is based on the population size of the areas where IRC is working, and assumes a GBV event incidence of 10%, with a worst acceptable rate of 8%. The required sample size to reach a 95% confidence level is 862 (generated using EpiInfo). Since the Neighborhood Method generates data on approximately 6 people, the required sample size for a random sample would be 144 (862/6) if the sample were perfectly random. Because the sample is not random, but rather systematic, we must account for design effect (2, as an estimate), anticipated refusal of consent and other sampling losses, a minimum of 300 households should be interviewed in each county (30 clusters of 10 households).

TRAINING OF INTERVIEWERS:

Columbia University team members will conduct training for IRC staff interviewers who have extensive experience discussing sensitive issues in a supportive manner and who are able to connect interviewees with local social services. The interviewers will be trained in additional interviewing techniques, such as avoiding aggressive questioning. They will also be trained in the principles of confidentiality and informed consent, so they will be able to address these issues when they arise during the course of the interview.

METHODOLOGY:

1. Interviewers will use cluster sampling in the population of interest, except in the camp setting in Ethiopia where systematic random sampling will be employed. The interview team will identify clusters and sampling intervals before interviewing begins.
2. Once the first household has been identified, the interviewer will approach the female head of household, explain the purpose of the visit and invite her to participate in an interview. The interviewer will establish that the woman is over 18, and if so, will ask for her informed consent to participate in the interview. The age of the respondent is recorded on the data collection form. If there is no one over the age of 18 who can participate in the interview, the interviewer will go to the next house. If no female over the age of 18 is at home and/or willing to participate, the interviewer will go to the next house. After three refusals/"unavailables" in a row, the interviewer will begin at the start of the next sampling interval.
3. If the woman agrees and provides informed consent, the interviewer will record the first name and age of the woman, the first names and ages of other females in her household, the first names and ages of her 4 closest neighbors, and the first name and ages of all of the females living in these homes. If the woman does not mention any women 18 years or older in a neighbors' houses, the interviewer will ask the woman if there is anyone 18 years old or older in that neighbor's house. If there is no one 18 years or older in a household, the interviewer will record this household as a child-headed household. It is important that the interviewer is determining the "closest neighbor". As such, the interviewer needs to be able to physically point to a household and ask the interviewee for the name of the neighbor; otherwise, the woman might speak about someone else, potentially biasing the results. Names will be recorded on removable 'post-it' labels. Anonymity will be emphasized.
4. The woman will then be invited to accompany the interviewer to a more secluded location away from the household.
5. The interviewer will again explain the study and that she is interested in understanding the major issues faced by women in the community. She will have the women identify and discuss issues she believes to be critical.
6. A small number of women initially interviewed will have their addresses recorded on a map and will be revisited at the end of the survey (4-6 weeks later). This revisit will assess their utilization of information provided at the end of the interview and to assure that no adverse consequences arose as a result of being interviewed by the IRC team. At the end of the revisit, the map and any unique identifier information will be destroyed.

Violence

6. If violence against women naturally arises in the conversation, the interviewer can segue naturally to asking whether the neighbor living closest to her has been assaulted by anyone since the beginning of the recall period. If violence is not identified, the interviewer should use a prompt and make note of that on the data sheet. Once prompted on violence in general, the interviewer will ask whether the neighbor living closest to her has been assaulted by since the beginning of the recall period. The nature of the relationship between the perpetrator and the woman (e.g. husband, friend, stranger) and where the event occurred will be noted. [Note: No identifying information about the perpetrator will be collected.] If the woman reports that the neighbor living closest to her has been assaulted since the beginning of the recall period, the interviewer will then ask if the woman living closest to her has been assaulted by anyone else since the beginning of the recall period. If so, the nature of the relationship between the perpetrator and the woman (e.g. husband, friend, stranger) and where the event occurred will be noted.
7. The interviewer will ask systematically whether each neighbor has been beaten by someone during the recall period and if so, by how many different individuals. The nature of the relationship between each perpetrator and the woman (e.g. husband, friend, stranger) and where each event occurred will be noted.
8. The interviewer will ask systematically whether each other female in the neighbors' home has been beaten by someone and if so, by how many different individuals, during the recall period. The nature of the relationship between each perpetrator and the woman (e.g. husband, friend, stranger) and where each event occurred will be noted.
9. The interviewer will ask systematically whether each female in her household has been beaten by someone in that household during the recall period, and, if so, by how many different individuals. The nature of the relationship between each perpetrator and the woman (e.g. husband, friend, stranger) and where each event occurred will be noted.
10. The interviewer will ask if the woman herself has experienced violence by during the recall period and, if so, by how many different individuals. The nature of the relationship between each perpetrator and the woman (e.g. husband, friend, stranger) and where each event occurred will be noted.
11. In any instance in which the woman reports that violence occurred, the interviewer will attempt to learn whether and where the incident was reported and mark appropriate boxes on the data collection form.

12. If sexual assault or rape naturally arises in the original conversation, the interviewer can segue naturally to asking whether the neighbor living closest to her has been sexually assaulted since the beginning of the recall period. If the issue of sexual assault or rape did not naturally arise in the original discussion, the interviewer should prompt the woman with a statement like, “In some communities, sexual assault is an issue for women. Can you tell me about sexual assault in your community?” Eventually, the interviewer will ask whether the neighbor living closest to the woman has been sexually assaulted since the beginning of the recall period.
13. Interviewer will ask systematically whether each neighbor has been sexually assaulted during the recall period.
14. The interviewer will ask systematically whether each female in her household has been sexually assaulted during the recall period.
15. The interviewer will ask systematically whether each female in the respondent’s household has been sexually assaulted during the recall period.
16. The interviewer will ask whether the woman herself has been sexually assaulted during the recall period.
17. In any instance in which the woman reports that sexual assault occurred, the interviewer will attempt to learn by how many different individuals the woman was sexually assaulted, the extent of the sexual assault and whether it constitutes rape, the nature of the relationship between each perpetrator and the woman (e.g. husband, friend, stranger) and whether and where each incident was reported, marking appropriate boxes on the data collection form.
18. If the woman has disclosed that she or another female in her household has been a victim of abuse, the interviewer will refer her to appropriate services.

REFERRAL MECHANISM:

Special consideration will be given to selecting areas where services are available and after an interview has ended, interviewers will provide information on where a woman can go for services if she wishes. In instances where the interviewee requests assistance for herself or for someone in her household, the International Rescue Committee has systems in place, including appropriate medical services, social services, and legal services for referral.

CONFIDENTIALITY PLAN:

Participants will be asked to identify only the first names of the relevant sampling populations of interest (e.g. neighbors, females in neighbors’ homes). First names only will be recorded on removable stickers on the interview response sheet which will be

removed and destroyed at the end of each interview in order to ensure confidentiality. The original set of data collection forms (with no unique identifiers) will be stored with the agency field office. A copy of the data collection forms will be brought back to Columbia University and stored in the department.

APPENDIX 2: INTERVIEW GUIDE

Interviewer Guide

INFORMED CONSENT

See Attached Consent Form

OBTAIN BASIC INFORMATION ABOUT THE RESPONDENT AND OTHERS:

1. What is your name?
2. How long have you lived in this community?
3. How old are you?
4. What is your marital status?
5. Tell me about your female neighbor who lives there [point to nearest house].
What is her name? Is she married? About how old is she? Who else lives in her household? How many women and how many girls? What is their relation to the neighbor; what are their ages and marital status?

INTERVIEWER CHECK: *Did the woman mention that there are women 18 years or older in this household?*

If yes, continue to question 6.

If no, ask: Is there anyone in this household who is 18 years old or older?

6. What about that female neighbor over there [point to nearest house on next side]?
What is her name? Is she married? About how old is she? Who else lives in her household? How many women and how many girls? What is their relation to the neighbor; what are their ages and marital status?

INTERVIEWER CHECK: *Did the woman mention that there are women 18 years or older in this household?*

If yes, continue to question 7.

If no, ask: Is there anyone in this household who is 18 years old or older?

[Continue asking about four closest neighbors.]

7. How many people live in this house? How many of these are adult women? How many of these are girls? What are their ages and their relationship to you?

INTERVIEWER CHECK: *Did the woman mention that there are women 18 years or older in this household?*

If yes, continue to question 7.

If no, ask: Is there anyone in this household who is 18 years old or older?

OPEN-ENDED QUESTION ABOUT ISSUES FACING WOMEN IN COMMUNITY

8. Can you tell me about the biggest challenges facing women in this community?

Probe: Any other issues? If they have not yet mentioned gender-based violence, prompt with “In some of the communities where we work, violence against women and girls is a problem. Is violence against women and girls a problem in this community?”

QUESTIONS ABOUT VIOLENCE

Neighbors

9. *If violence was raised by the woman:* You mentioned that violence is a problem in this community.

Or if she has not mentioned violence: Many women have said that violence is an issue in their communities, and I wonder if it is an issue here. What about your neighbor X? Since y time, has this neighbor ever been beat or hit?

If the woman says yes, ask:

- a. What did she do after this happened? Did she tell anyone? Who? How did they respond? Where did this violent event happen? Who hurt her (e.g. friend, husband, stranger)?
- b. Has neighbor X been beat or hit by anyone else since time Y?

If no, continue to question 10.

If yes, ask:

What did she do after this happened? Did she tell anyone? Who? How did they respond? Where did this violent event happen? Who hurt her (e.g. friend, husband, stranger)?

10. What about the other girls and women in that neighbor's household? Since time y, have any of them been beaten or hit?

If the woman says yes, ask:

- a. What did she do after this happened? Did she tell anyone? Who? How did they respond? Where did this violent event happen? Who hurt her?
- b. Has this neighbor been beaten or hit by anyone else since time Y?

If no, continue to question 11.

If yes, ask:

What did she do after this happened? Did she tell anyone? Who? How did they respond? Where did this violent event happen? Who hurt her (e.g. friend, husband, stranger)?

11. And what about your neighbor Y? Since time y, has she been beaten or hit?

If the woman says yes, ask:

- a. What did she do after this happened? Did she tell anyone? Who? How did they respond? Where did this violent event happen? Who hurt her?
- b. Has this neighbor been beaten or hit by anyone else since time Y?

If no, continue to question 12.

If yes, ask:

What did she do after this happened? Did she tell anyone? Who? How did they respond? Where did this violent event happen? Who hurt her (e.g. friend, husband, stranger)?

Interviewer should continue in this way and ask about each of the four neighbors, as well as the other women and girls in that neighbor's house.

Respondent (Woman Herself)

12. And what about you? Since time y, have you been beaten or hit?

If yes, ask:

a. What did you do? Did you tell anyone? Who? How did they respond?
Where did this violent event happen? Who hurt you?

b. Have you been beaten or hit by anyone else since time Y?

If no, continue to question 13.

If yes, ask:

What did you do after this happened? Did you tell anyone? Who? How did they respond? Where did this violent event happen? Who hurt you (e.g. friend, husband, stranger)?

13. And what about X female household member? Since time y, has she been beaten or hit?

If yes, ask:

a. What did she do after this happened? Did she tell anyone? Who? How did they respond? Where did this violent event happen? Who hurt her?

b. Has X female household member been beaten or hit by anyone else since time Y?

If no, continue to question 14.

If yes, ask:

What did she do after this happened? Did she tell anyone? Who? How did they respond? Where did this violent event happen? Who hurt her (e.g. friend, husband, stranger)?

Continue to ask about each female household member.

QUESTIONS ABOUT SEXUAL ASSAULT AND RAPE

Neighbors

14. *If woman mentioned sexual assault or rape as an issue, say:* You mentioned that rape and sexual assault are problems in this community.

Or: lots of women report that sexual assault is a big issue in their communities. What about for neighbor X? Since time y, has she been raped or sexually assaulted?

If yes, ask:

- a. Can you tell me what happened? By whom? Someone in her household? Where did this happen? What did she do after this happened? Did she tell anyone? Who? How did they respond?
- b. Has neighbor X been raped or sexually assaulted by anyone else since time Y?

If no, continue to question 15.

If yes, ask:

Can you tell me what happened? By whom? Someone in her household? Where did this happen? What did she do after this happened? Did she tell anyone? Who? How did they respond?

15. What about the other women and girls living in neighbor X's house? Since time y, have any of them been raped or sexually assaulted?

Continue asking for each neighbor, and each girl and woman in neighbor's household.

Respondent (Woman Herself)

16. What about you? Since time y, have you been raped or sexually assaulted by anyone?

If yes, ask:

Can you tell me what happened? By whom? Someone in your household? Where did this happen? What did you do after this happened? Did you tell anyone? Who? How did you respond?

- a. Have you been raped or sexually assaulted by anyone else since time Y?

If no, continue to question 17.

If yes, ask:

Can you tell me what happened? By whom? Someone in her household? Where did this happen? What did she do after this happened? Did she tell anyone? Who? How did they respond?

17. What about for X female member of household? Since time y, has she been raped or sexually assaulted?

a. Can you tell me what happened? By whom? Someone in her household? Where did this happen? What did she do after this happened? Did she tell anyone? Who? How did they respond?

b. Has X female household member been raped or sexually assaulted by anyone else since time Y?

If no, continue to question 18.

If yes, ask:

Can you tell me what happened? By whom? Someone in her household? Where did this happen? What did she do after this happened? Did she tell anyone? Who? How did they respond?

Continue for all female members of household.

CONCLUSION

18. For women who have experienced violence, sexual assault or rape, what do you think might help them cope?

19. Thank you so much for taking the time to talk with me. I have gone through all of my questions. I just want to reemphasize that everything you have told me is completely confidential. This information will help us better understand the issues facing women in this community, and will help us provide better services. Is there anything else that you would like to share or ask me?

Interviewer will:

- thank the woman for her time
- explain the medical services, social services, and legal protocols available [list currently being collated by IRC]
- explain what IRC is going to do with the information collected through these interviews
- ask the woman if she has any more questions.

APPENDIX 3: CONSENT FORM

Consent Form

My name is X, and I work for the International Rescue Committee. I am part of a team that is looking at ways to improve programs for women in this community, and I would like to ask you some questions covering the time period from [y] until today.

Are you over the age of 18? If yes: can you spare 30-45 minutes to answer some questions? Let's find a private space so that we can talk confidentially. [*Go to private area.*]

If she is under the age of 18, ask if there is a woman over the age of 18 in the household who she can talk to. If there is none, thank the woman for her time, but that you are only able to interview women who are over the age of 18. [Mark the top of the sheet as "unavailable," and go to the next house.]

Obtain informed consent: Everything you tell me today is completely confidential. This means that no one outside of our team will know that you gave us this information, or what that information is. There is no pressure for you to talk with me. If you decide not to take part, it will not affect your situation with the International Rescue Committee. If you agree to talk with me, you are free at any time to not answer any questions or to end the interview. There is no compensation for this interview; you and your family will not directly benefit from this study. Your participation will help the International Rescue Committee better understand the issues facing women in this community, and will help us provide better services.

- Do you have any questions?
- Do you understand our purpose?
- During this interview I will ask your name and those of some of your neighbors and family members, but the names will be removed as soon as we are done talking. Everything you say here is confidential. Is that OK?
- Do you understand that you are free not to answer any question or to end the interview at any time?
- Are you willing to talk with us and share your experiences?

If yes, the interviewer sign her name next to "Received Informed Consent" on the Data Collection Form.

If no, thank the woman for her time; mark the interview sheet with an X to note that she did not consent and move to the next house.