

Using Quantitative Data to Assess Conflict-Related Sexual Violence in Colombia:

Challenges
and Opportunities

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Françoise Roth
Tamy Guberek
Amelia Hoover Green

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Françoise Roth
Tamy Guberek
Amelia Hoover Green

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Part I

Executive Summary

Executive Summary

Introduction

Via Resolutions 1325 (2000), 1820 (2008) and 1889 (2009), the United Nations Security Council has strongly promoted the collection of data about wartime sexual violence and other issues related to gender equality in situations of armed conflict. The resolutions do not fully appreciate the size of the task laid out. Sexual violence, in wartime or in peacetime, is among the most notoriously difficult forms of violence to measure. A data *mandate* that does not point the way toward data *quality* leaves policy-makers in the dark as they seek to prevent or mitigate sexual violence, to punish perpetrators, or to make reparations to victims. Worse, poor-quality data on sexual violence may give a false impression of specificity and reliability, leading to incorrect policy assessments, misallocation of resources, and other outcomes that are assuredly not in line with the United Nations' goals on this issue.

This report addresses the challenges of sexual violence measurement in a specific context: Colombia's ongoing internal armed conflict. After discussing in depth the difficulties faced by researchers attempting to measure sexual violence around the world, the report addresses several Colombian data collection efforts more specifically. Both governmental and non-governmental data sources are considered; more importantly, the authors outline several key cultural and political issues affecting sexual violence data collection in Colombia. In particular, the research team found, sexual violence reporting procedures in Colombia are fragmented and incomplete. Sexual violence is frequently viewed as a

domestic violence or criminal justice issue; it is seldom considered as a phenomenon in its own right, or as an outcome associated with armed conflict.

These measurement difficulties provided the initial impetus for this study. With funding from the Open Society Institute (OSI), the Colombian non-governmental organization (NGO) Corporación Punto de Vista (CPdV) formed a partnership with an American technical advisory NGO, the Benetech Human Rights Program (HRP), to consider whether indirect indicators of conflict-related sexual violence in Colombia could provide stronger estimates than could direct measures. In the course of its work, the research team concluded that it should first address broader, more fundamental questions surrounding the use of information on sexual violence. Below, we summarize the key findings and recommendations from this research process, as submitted to OSI in November 2010.

Key Findings

- *Current political and donor incentives encourage overinterpretation of data that cannot support numerical claims.* (See Chapter 2.) Demand for numerical data on sexual violence in Colombia is very strong. Advocates, jurists, politicians, journalists, scholars, preservers of historical memory, doctors and nurses, and many others demand statistics, for a variety of reasons. In preparing this feasibility report, the research team held discussion groups and

interviews with actors interested in the topic of conflict-related sexual violence. Most interview respondents stated that accountability imperatives (e.g., criminal cases), advocacy imperatives (e.g., increased public awareness) and donor imperatives (e.g., demand for numerical evidence of problem or solution) privilege statistical knowledge over other types of knowledge, regardless of the quality of the statistical “knowledge” in question.

- *At present, direct data on sexual violence, such as case reports and surveys, cannot serve as the basis of rigorous claims about the magnitude or incidence of conflict-related sexual violence in Colombia.* (See Chapter 4.) Policy-makers and advocates report that they need “hard numbers” or statistical evidence of the dimensions, characteristics, dynamics, victims and perpetrators of sexual violence in Colombia. However, it must be recognized that basic questions regarding the nature, magnitude, pattern, variation, perpetrators and effects of wartime sexual violence cannot yet be answered with scientific rigor. Stakeholders must also grapple with the fact that no single dataset, no matter how large, can accurately assess conflict-related sexual violence on a population level. (See Chapter 3.)
- *At present, indirect data on sexual violence, such as health or demographic information, cannot serve as the basis of rigorous claims about the magnitude or incidence of sexual violence in Colombia.* (See Chapter 5.) The research team investigated a large number of indirect indicators of sexual violence, including health data, demographic data, and data regarding the use or purchase of abortifacient drugs. While some of this evidence is suggestive, it either (1) cannot be tied to sexual violence, let alone conflict-related sexual violence, with certainty; or (2) suffers from the same biases and incompleteness as the direct measures.
- *Direct and indirect data related to sexual violence can be used as components of investigations, provided that those investigations use multiple methods and*

investigate specific, local hypotheses. (See Chapters 5 and 6.) Local hypotheses concern a small and highly specific location or time period. For example, in the Montes de María region of Colombia, local advocates hypothesized that the under-representation of young women in the local population signified displacement in response to sexual violence by armed actors. At this level of specificity, quantitative information can be used to support qualitative data in testing local hypotheses.

Recommendations

- A key recommendation to advocates and other analysts of sexual violence is: *avoid overclaiming.* The research team strongly encourages users of data on sexual violence in Colombia to be cautious and rigorous about claims-making regarding sexual violence. Of particular concern are specific quantitative or quasi-quantitative claims regarding the pattern (e.g., “systematic”) or magnitude (e.g., “widespread”) of sexual violence in Colombia, which cannot be supported or defended using existing data. In particular, we wish to draw attention to the politicization of debates about conflict casualties in Colombia (see, e.g., discussion in Price and Guzmán 2010), and to the fact that analysts antagonistic to human rights organizations can and will attempt to discredit advocates’ claims by criticizing their statistical methods.
- In the long term, we recommend *large investments in local methodological expertise.* By “building local expertise” we do not mean training in statistical analysis, but rather increased clarity regarding the origins and limits of human rights datasets. Scientific best practices, such as generating alternative hypotheses and understanding potential biases, are logical exercises that do not require a new set of technical skills (see Chapter 3, regarding bias, and Chapter 5, on alternative hypotheses). However, these practices could lead to substantial improvements in advocates’ capacity to make defensible claims. Human rights organizations are not, and

need not be, statistical experts, but local human rights leaders must understand the limitations of their information, and potential paths to improved information. In an era of quantitative data and rhetoric, human rights advocates will contend with political antagonists whose harsh claims are couched in the language of methodological rigor.

- To effectively support information-gathering initiatives, *the international community and the community of donors in human rights must understand the limitations of quantitative data*. They must, in addition, carefully consider the incentives they create. Are these incentives aimed toward long-term goals of understanding sexual violence and ending impunity? Or do they incentivize irresponsible numerical claims in the near term? If the structure of incentives leans toward short-term production of “big” claims rather than long-term production of knowledge, the international community bears responsibility for our general lack of understanding. *We call on those who institutionalize such incentives (the international community and human rights donors, for example) to reconsider demands for quantitative data in the short term.*
- Analysts of sexual violence, far from attempting a unified population level approach to measuring sexual violence, should *rely heavily on the qualitative and contextual knowledge of local experts*. This type of local expertise is vital, because reliance on a single data collection and estimation strategy (or, indeed, a single type of data) is likely to lead to biased representations of the nature, scale and pattern of all conflict-related sexual violence. The research team concludes that local investigations offer researchers their best chance at the type of interdisciplinary richness that allows for meaningful assessment of quantitative data. When research focuses on specific, local hypotheses, investigations can usefully employ information of many types. Indeed, at the local level, specific hypotheses may generate a plan for further quantitative data gathering. Together, these types of investigation can lead to useful, rigorous conclusions regarding the local dynamics of sexual violence.
- The research team urges *continued investigations in Colombia*, for a variety of reasons. The heterogeneity of sexual violence in Colombia may provide important advantages to researchers. For example, comparing varying patterns of violence across relatively similar communities is possible within a country but quite difficult in the cross-national context, because so many factors may confound the investigation. In addition, this heterogeneity across localities may provide important evidence about the varying effects, as well as the varying causes, of differing patterns of sexual violence during conflict. Additionally, our research demonstrates the extraordinary strength of Colombian civil society, its engagement with the issues, and its ability to effect change. Low levels of violence in many areas of the country increase researcher access to conflicted zones and thereby reduce the severity of reporting issues. Colombia provides a unique combination of rich data and (relatively) accessible conflict areas.
- Most importantly, we urge *continued investigations in marginalized populations that may be targeted for sexual violence*, including indigenous and Afro-Colombian communities. The recent rape and murder of a fourteen-year-old girl in the department of Arauca, apparently by members of the Colombian army, also highlights the need for increased investigation of sexual violence by all parties to the conflict, state and non-state.

Part II

Understanding Sexual
Violence Data in the
Colombian Context

Introduction

Gender-based violence, including sexual violence, has occurred within and alongside Colombia's internal armed conflicts for decades. For example, Guzmán, Fals and Umaña (1962) and Uribe (1978) addressed sexual violence during Colombia's mid-twentieth-century civil conflict, known as "La Violencia". However, in Colombia as in most other conflicted settings, researchers and advocates have focused sustained attention on the problem of conflict-related sexual violence only in approximately the last decade. During a 2001 visit to Colombia, the Special Rapporteur on Violence against Women, its Causes and Consequences highlighted this issue: "...the Special Rapporteur would like to address a popular misconception ...that gender-based violence in the context of the conflict is not an issue in Colombia...The Special Rapporteur was surprised and deeply concerned at the lack of interest in this subject" (Coomaraswamy 2002).

Revelations about the massive scale of sexual violence committed in the former Yugoslavia (1991-1993; see, e.g., Swiss and Giller 1993) and the Rwandan genocide (1994; see, e.g. Human Rights Watch 1996) created an international push to consider sexual violence as a problem in its own right, rather than as a regrettable, but typical, outcome of armed conflict. Since approximately the mid-1990's, international community dialogues on armed conflict and violence have grappled explicitly with the profound impacts of sexual violence, both on individual victims and on their communities. In Colombia, too, women's organizations and human rights advocates have worked to make sexual violence a central theme in discussions regarding the conflict.

As part of this emerging movement, key actors within Colombia's strong network of civil society organizations have worked—and continue to work—to document cases of sexual violence by all parties to the conflict, against both combatants and non-combatants. These documentation efforts frequently support attempts to bring prosecutions in national courts or, more ambitiously, at the International Criminal Court (ICC). Thus, while these data are extremely rich, they have not been collected for the purpose of scientific analysis. They cover only certain geographic areas, and date only from the mid-1980's. The number of undocumented cases is unknown and would be very difficult to infer (see Chapters 3 and 4). Because we cannot make strong statistical claims about undocumented cases using the existing data, and because undocumented cases may differ systematically from documented cases, we also cannot make numerical claims about sexual violence in Colombia as a whole.

State organizations also collect some data relevant to sexual violence (including crime data, public health data, and data on populations in vulnerable situations). Again, however, these data are incomplete and cover only a limited period. As we discuss in Chapter 2, uneven data gathering efforts by state actors seem to be associated with more general failures of enforcement and follow-through on issues surrounding gender in Colombia. Perhaps more importantly, we find that within state organizations (as well as within some NGOs), sexual violence is frequently pigeonholed into only a few categories. Data on sexual violence, *per se*, are seldom or never collected by state organizations; instead, when sexual violence is registered it

appears in the context of public health information, crime statistics, or domestic violence reporting. Yet none of these categories accounts adequately for sexual violence *per se*, or for conflict-related sexual violence as a separate phenomenon. The historical and institutional context in which data are collected is considered more extensively in Chapter 2.

Data from direct reports of conflict-related sexual violence in Colombia are a problematic foundation on which to build either scientific conclusions or comprehensive policies. The research question motivating this study—*Can we use indirect data to research conflict-related sexual violence in Colombia?*—responds to this problem by considering other sources of information, namely the indirect “footprints” of conflict-related sexual violence in demographic, health or other data. Because of the far-reaching consequences of sexual violence, we wished to investigate whether measurements of these consequences could lead to valid inferences about the phenomenon itself.

In order to provide an adequate answer to this research question, we have considered general problems afflicting *any* attempt to measure sexual violence,

as well as issues specific to the Colombian context. In addition, we have attempted to articulate best practices for the use of indirect data, and have undertaken a preliminary case study of one potential indirect data source. As we explain in greater detail below, we conclude that indirect data should not now be used as a key source of evidence, but that it may be an important element of future investigations. Indeed, a key conclusion of this study is that no statistical estimate of the magnitude or pattern of sexual violence in Colombia, including conflict-related sexual violence, is currently feasible. However, we identify important opportunities for developing a substantive research agenda on sexual violence in Colombia that *includes* quantitative data.

Although it responds to a concrete research question, situated in a particular location, this report also considers the role of numerical data in human rights advocacy more generally. On the one hand, numbers are incredibly (and increasingly) powerful tools for advocacy and justice. Numerical arguments speak truth to power. On the other hand, usable numbers are difficult to find, and once found, are difficult to interpret meaningfully.

Project Background

This report is the end result of a nearly yearlong feasibility study supported by the International Women’s Program of the Open Society Institute (OSI). A Colombian non-governmental organization (NGO), Corporación Punto de Vista (CPdV), formed a partnership with an American technical advisory NGO, the Benetech Human Rights Program (HRP), in order to explore the possibility of using indirect data to better understand conflict-related sexual violence in Colombia.

The first phase of the feasibility research consisted of in-depth interviews with physicians, forensic

anthropologists, jurists, social workers, psychologists, epidemiologists and academic researchers in political science. Interview subjects were affiliated with many organizations, including state institutions, women’s and other human rights groups, and the academy. We conducted interviews in Bogotá and three other Colombian regions: the city of Medellín, the city of Cali, and the northern region of Montes de María.¹

At the interview stage, we chose to explore our focus regions in depth rather than to attempt a broad consideration of all efforts to report sexual violence. We chose as interview subjects experts from a variety

¹ Montes de María is an area in northern Colombia, straddling Sucre and Bolívar departments, in which sexual violence has frequently been reported, and in which such reports have been strongly contested.

of fields, each of whom had extensive experience dealing with sexual violence in his or her professional capacity. Some respondents focused primarily upon sexual violence in the context of the internal armed conflict, whereas others were concerned with sexual violence more generally.

The second element of the feasibility research was a review of available literature and data on sexual violence. First, we surveyed literature on sexual violence measurement in Colombia and other conflict settings. These literature reviews emphasized the extent to which methodological debates on sexual violence remain unresolved. They allowed us also to consider the evidentiary basis of many claims regarding sexual violence, and indicated that many uses of numerical data on sexual violence overlook or oversimplify the methodological difficulties associated with analyzing such data. A second review comprehensively addressed sexual violence data currently available in Colombia. In most cases, we obtained data through official writs for information lodged with state entities. In other

cases, organizations provided their data to us directly (e.g., Profamilia, Sisma-Mujer, Humanas). Examining these data collections clarified their construction as well as the scope and quality of the information available. Finally, we considered best practices for the use of indirect data, and examined the possibility that the use and purchase of abortifacient drugs may provide clues about the incidence of sexual violence. Throughout the research project, the research team engaged interviewees and other stakeholders through focus group meetings.

As we discuss at greater length later in the report, no quantitative assessment of sexual violence in Colombia is possible at this time. Both Benetech HRP and CPdV researchers strongly emphasize that the current inability to make statistical claims about conflict-related sexual violence in Colombia reflects the extraordinary structural difficulties of gathering and analyzing quantitative data on sexual violence, rather than any failure on the part of our Colombian colleagues and partners.

Key findings and recommendations

Each of the following points is considered in greater detail in the chapters that follow. In addition, many other findings are considered at some length. The research team considers that the following are the most important findings and recommendations of this feasibility study.

- *Current political and donor incentives encourage overinterpretation of data that cannot support numerical claims.* (See Chapter 2.) Demand for numerical data on sexual violence in Colombia is very strong. Advocates, jurists, politicians, journalists, scholars, preservers of historical memory, doctors and nurses, and many others demand statistics, for a variety of reasons. In preparing this feasibility report, the research team held discussion groups and interviews with actors interested in the topic of conflict-related sexual violence. Most interview respondents stated that accountability imperatives (e.g., criminal cases), advocacy imperatives (e.g., increased public awareness) and donor imperatives (e.g., demand for numerical evidence of problem or solution in order to receive funding) privilege statistical knowledge over other types of knowledge, regardless of the quality of the statistical “knowledge” in question.
- *At present, direct data on sexual violence, such as case reports and surveys, cannot serve as the basis of rigorous claims about the magnitude or incidence of conflict-related sexual violence in Colombia.* (See Chapter 4.) Policy-makers and advocates report that they need “hard numbers” or statistical evidence of the dimensions, characteristics, dynamics, victims and perpetrators of sexual violence in Colombia.

However, it must be recognized that basic questions regarding the nature, magnitude, pattern, variation, perpetrators and effects of wartime sexual violence cannot yet be answered with scientific rigor. Stakeholders must also grapple with the fact that no single dataset, no matter how large, can accurately assess conflict-related sexual violence on a population level (see Chapter 3).

- *At present, indirect data of sexual violence, such as health or demographic information, cannot serve as the basis of rigorous claims about the magnitude or incidence of sexual violence in Colombia.* (See Chapter 5.) The research team investigated a large number of indirect indicators of sexual violence, including health data, demographic data, and data regarding the use or purchase of abortifacient drugs. While some of this evidence is suggestive, it either (1)

cannot be tied to sexual violence, let alone conflict-related sexual violence, with certainty; or (2) suffers from the same biases and incompleteness as the direct measures.

- *Direct and indirect data related to sexual violence can be used as components of investigations, provided that those investigations use multiple methods and investigate specific, local hypotheses.* (See Chapter 5.) Local hypotheses concern a small and highly specific location or time period. For example, local advocates might hypothesize that an increase in the use of grey-market abortifacients is related to an uptick in sexual violence. At this level of specificity, and with many qualifications, quantitative information might be used to support qualitative data in testing specific hypotheses.

Plan of the report

This report proceeds in four additional chapters. Chapter 2 explores the Colombian context further. It situates current data gathering and data analysis projects in the context of Colombia's internal armed conflict, and outlines the roles that non-government, government, and international actors play in supporting understanding of conflict-related sexual violence in Colombia. Next, Chapter 3 takes a step back to consider problems affecting sexual violence data collection and analysis more generally. Chapter 4 considers currently available data on sexual violence

in Colombia in light of the issues raised in Chapter 3. We review datasets from the public health sector, from law enforcement and the judiciary system, and from non-governmental organizations, and we assess the strengths and weaknesses of these data types. Chapter 5 goes beyond existing data to consider at greater length the role of indirect data in building knowledge of sexual violence in Colombia. Finally, in Chapter 6, we present our conclusions and recommendations.

The Colombian context

Data in demand

We have undertaken this largely methodological study in the Colombian context. For that reason, we first describe what we believe that context to be. During the authors' roundtable discussions with Colombian analysts and advocates, nearly all participants expressed a need for quantitative information: "statistics," about the "dimensions" or "characteristics" of sexual violence and its victims, numerical indicators of "patterns of conduct" by perpetrators, or similar evidence. Yet basic questions regarding the nature, magnitude, pattern, variation, perpetrators and effects of wartime sexual violence in Colombia remain more or less unknown.

These demands for data echo similar demands heard around the world. However, the importance of documenting and understanding wartime sexual violence has created strong incentives to draw overly broad inferences from data which, in some instances, may not be sufficient for such conclusions. This incentive structure does not promote reflective research practices; the epistemological and methodological shortcomings of some studies (and, specifically, of the data underlying these studies) have received little attention from within the human rights community.¹ Statistical claims about the pattern ("systematic")

and magnitude ("widespread") of sexual violence or any human rights violation demand rigorous analysis of high-quality data. At this time, no such analysis is possible, in Colombia or elsewhere. The available data are simply not sufficient. This is, or should be, a significant issue for the advocates who have brought sexual violence to the national agenda in Colombia.

Unfortunately, women's and human rights organizations, who have been the driving force behind increased notice of sexual violence, frequently face skepticism and hostility regarding reports of sexual violence, from local communities as well as from civil servants, prosecutors and judges. As we argue in this report, such reactions may be rooted in skeptics' differing interpretations of, or access to, information. However, given the intense politicization of data related to violence in Colombia (see, e.g., Ballesteros et al. 2007 and response in Vivanco 2007; Inter-American Commission on Human Rights 2007), we wish to note the possibility that politically motivated critics will seize opportunities to question the validity of statistical claims regarding sexual violence, the reliability of the data underlying them, and the methodological choices supporting them.² While statistical evidence is much in demand, we are wary of its vulnerability to

¹ The United Nations Population Fund (Marsh et al. 2006), the World Health Organization (2008), and the Reproductive Health Response in Crises Consortium, among other organizations, have published guides to researching sexual violence in conflict, but while these guides to methodology are useful, they fail to discuss the reasoning behind their methodological choices, or the possible consequences of methodological choices more generally.

² This is particularly true in light of the "myths and misconceptions surrounding the risk factors [for sexual violence], the characteristics of victims and perpetrators [of sexual violence], and the likely effects of such violence" that decision-makers may hold (World Health Organization 2010).

attack, and wish to highlight opportunities for increased rigor, which will—we believe—ultimately strengthen statistical claims.

It is important to note at the outset, however, that although women’s and human rights groups may have overinterpreted data in some instances, they have succeeded in raising a vital issue for the Colombian civilian population, as well as for the armed groups engaged in this long war. They argue forcefully that

sexual violence need not be an “inevitable consequence” of armed conflict, and that armed group leaders must not expect, and state actors must not allow, impunity for sexual violence committed during conflict.³ Their advances have pushed government agencies, the media, and academic leaders to provide increased documentation, coverage, and analysis of conflict-related sexual violence. Because of their efforts, victims of sexual violence have greater access to services now than at any time in the past.

Increasing awareness

In a key decision on the rights of displaced women, the Colombian Constitutional Court (2008) stated: “Sexual violence against women is a common, widespread, systematic and invisible practice in the context of the Colombian armed conflict.” Although these claims about population level patterns of sexual violence are debatable, they highlight growing public awareness of sexual violence in the context of Colombia’s internal armed conflict. Importantly, the Court also recognized that “patterns of gender violence and discrimination of a structural nature in Colombian society, which predate displacement but are exacerbated by the phenomenon of displacement, are seriously impacting displaced women.”

This landmark decision was based on information presented by advocacy organizations, in particular women’s rights organizations. These voices were echoed by the international community; officials such as the Rapporteur on Violence Against Women, the High Commissioner for Human Rights, and the Inter-American Commission on Human Rights weighed in. The 2002 report of the United Nations Rapporteur on Violence against Women (Coomaraswamy 2002) and the 2004 Amnesty International report *Scarred Bodies, Hidden Crimes: Sexual Violence Against Women in Armed Conflict* (Amnesty International 2004) were built on a foundation laid by civil society organizations.

Among Colombian NGOs, women’s organizations led the turn toward consideration of sexual violence as a crime of war and crime against humanity. For example, the *Mesa de Trabajo Mujer y Conflicto Armado*, a consortium of organizations focused on the Colombian conflict’s effects on women, publishes annual reports that have included at least one chapter on sexual violence for the last decade.

Colombia’s national women’s organizations and networks have all documented, at some level, the problem of sexual violence. These groups include Sisma-Mujer, Humanas-Colombia, la Ruta Pacífica de Mujeres (the Peaceful Road of Women), Iniciativa de Mujeres Colombianas por la Paz (Colombian Women’s Peace Initiative), and Casa de la Mujer (Women’s House). At the regional level as well, several groups have developed strong networks for reporting on the issue. Among many others, these groups include the Asociación Regional de Mujeres del Oriente Antioqueño - (the Regional Association of Women from East Antioquia, APROVIACI), Mujeres que Crean (Women Who Create) y Vamos Mujeres (Let’s Go Women) in Medellín (Antioquia), Mujer y Futuro (Women and Future) in Bucaramanga (Santander), la Red Nacional de Mujeres del Cauca (the National Women Network of Cauca), Sí Mujer (Yes Woman) in Cali (Valle) and, in the Atlantic Coast, Narrar para Vivir (Tell to Live) and the Liga de

³ Academic researchers have also noted the non-inevitability of sexual violence during armed conflict (e.g., Wood 2009).

Mujeres Desplazadas de Cartagena (the Displaced Women League of Cartagena).

Following the leadership of women's organizations across the country, other human rights organizations began including sexual violence in their agendas. The groups include the Colombian Commission of Jurists, the Jesuit-run Centro de Investigación y Educación Popular (Center for Research and Popular Education, CINEP), and the Consultoría para los Derechos Humanos y el Desplazamiento (the Consultancy for Human Rights and Displacement, CODHES). CODHES has published a comparative account of two notorious massacres, which explicitly relies upon female survivors' narratives about patterns of sexual violence in its analysis (CODHES 2010).

Media outlets, too, have increased their attention to wartime sexual violence. This is a remarkable advance. Newspapers (e.g., *El Tiempo* and *El Espectador*), magazines (*Semana*), and a webpage, *VerdadAbierta.com*, have all covered conflict-related sexual violence in Colombia. *El Tiempo* published an in-depth article on wartime sexual violence against men, an extremely sensitive and even taboo topic (*El Tiempo* 2010). These

Limited, and limiting, conceptual frames

What is known, and can be known, about sexual violence is strongly influenced by the lens, or frame, through which the phenomenon is perceived and understood. In Colombia, the conceptualization of sexual violence has been narrowly understood as primarily public health, legal or criminal problem, and the links between sexual violence and other forms of violence have been insufficiently explored. This conceptual frame limits broader understandings of sexual violence occurring in other contexts—for example, the dynamics of sexual violence associated with armed conflict and other forms of public violence.

media sources echo, to an extent, the efforts of NGOs in their denunciations of impunity.

Colombia's academic institutions are important voices in society and are highly respected. However, although a number of scholars have investigated human rights issues, attention to conflict-related sexual violence within the Colombian academy remains limited. Within this context, a small but growing group of researchers has turned its attention to sexual violence issues, particularly in studies on women and land, demobilization or displacement issues (e.g., Meertens 2000; Londoño and Nieto 2006; Londoño and Ruiz 2010).

However, as we describe below, conflict-related sexual violence does not fit neatly into the conceptual frames regarding gender, and gender-based violence, that predominate within Colombian institutions. Large-scale documentation efforts have only recently begun, and many of these efforts are hampered by the definitions and preoccupations of earlier policies. Sexual violence has been viewed as a domestic issue to be dealt with privately, as a criminal justice problem to be dealt with legally, or as a public health indicator, but has seldom been considered as an issue in its own right.

Data on sexual violence in labor, educational, or healthcare contexts are largely missing, as are cases in which sexual violence is linked to other criminal conduct. For example, neither information obtained from exhumations nor data on disappearances and homicides systematically indicate whether sexual violence was also a component of the crime (Interview, Human Rights Officer, Office in Colombia of the UN High Commissioner for Human Rights, February 2010). Similarly, despite the legal definition of a "public health event" as an occurrence which "affects or could affect the health of the population" (Decree 3518, Art. 1, 2006), public health organizations are

not yet obligated to report incidents of sexual violence to the Ministry of Social Protection or to the National Health Institute.⁴

In short, despite evidence that sexual violence is a relatively common problem in Colombia, there exists no national mechanism to report sexual violence as such. Below, we discuss the drawbacks of existing frames for reporting, and consider efforts to implement a more systematic approach.

Sexual violence as domestic violence

In Colombia, sexual violence is generally considered, and therefore also generally recorded, in the context of domestic violence; as a phenomenon related to the country's *political* conflict, sexual violence has not been adequately documented or analyzed. Using domestic violence statistics to analyze sexual violence may lead to substantial misinterpretations. To take one possibility, official figures may be skewed toward episodes of sexual violence that co-occur with other types of domestic violence. Government statistics indicate that most sexual assaults occur in or near the victim's home, and are committed by previously known persons or relatives—but these statistics cannot determine whether *reported* sexual assaults are representative of *all* sexual assaults. It could be the case that many near-home assaults are reported, while few assaults occurring in other contexts are reported.⁵

There is no doubt that sexual violence and other types of domestic violence (e.g., battering, psychological abuse, and so on) frequently co-occur, or that domestic sexual violence is common in Colombia and should be considered “an endemic pathology” (Interview, Oriéntame, Bogotá, January 2010). However, researchers hoping to fully understand sexual violence in Colombia must look beyond the domestic context,

and consider the relationship between the frames that guide data gathering processes and the patterns that appear in the resulting data. Even *within* the domestic context, the extent to which armed conflict affects ostensibly “private” violence is unknown, and has not been a major focus of research.

It is difficult to analyze, or even obtain, data on non-domestic perpetration of sexual violence. Since 2007, the Colombian National Institute of Legal Medicine and Forensic Science (*Instituto Nacional de Medicina Legal y Ciencias Forenses*, INML) has included armed actors as a perpetrator category (see Table 4.1)—yet INML perpetrator categories have varied so considerably that over-time comparisons may be impossible. Cases occurring before 2007 record all non-domestic sexual violence as having been perpetrated by “other(s)” or “unknown,” clearly an unsatisfactory basis for analysis. However, even perpetrator recategorization cannot fully account for the relationship of sexual violence to conflict. A perpetrator's membership in an armed group is not sufficient to prove that a given episode of sexual violence is “conflict-related”; likewise, the fact of perpetration by non-combatants does not necessarily identify sexual violence as non-conflict-related. (See Chapter 3 for further discussion of this issue.)

Sexual violence as a legal issue

The 1991 Colombian Constitution specifically recognizes equal rights between men and women, and prohibits discrimination against women: “Women and men have equal rights and opportunities. Women may not be subjected to any kind of discrimination” (Art. 43). National legislation has also begun to address violence against women. These laws recognize rights and identify crimes, but most have not been implemented, and none has created significant new sources of information about sexual violence.

⁴ Some municipalities report sexual violence statistics, but they do so at their own initiative, not in response to institutional mandates or requirements.

⁵ Examples of such official figures include those of the Colombian National Institute of Forensic and Legal Medicine (INML). Other studies (e.g., those of Profamilia, considered in Chapter 4) also find this pattern.

Law 1257, passed in December 2008, extends Article 43 protections to specifically address violence against women. According to a January 2010 Presidential Decree, this Law is intended to guide policies that will guarantee “a life free from violence in the public, as well as in the private, sphere” to every Colombian woman (Decree 164, 2010). Law 1257 formally recognizes sexual violence as one form of gender-based violence that affects women. However, the Law has not yet received either funding or administrative support for its implementation. It remains dead letter as a national policy, and is only unevenly applied at the regional level.⁶

Similarly, Presidential Decree 164 created an interinstitutional roundtable with the lofty goal of “eradicat[ing] violence against women” (Decree 164, 2010), but the roundtable has yet to take concrete policy steps. Criminal law has also attempted to address sexual violence. Law 360 (1997) recognized sexual violence committed against a spouse or against a person with whom the accused cohabited or fathered a child as a criminal offense; further, it established special processes within the criminal justice system for victims of sexual violence in order to guarantee victims’ rights to privacy, dignity and care (Humanas 2009). Law 599 (2000) specifically addressed rape and violent sexual conduct in the context of armed conflict; in addition, Law 599 defined forced prostitution as an element of the crime of genocide.

The Constitutional Court’s ruling in *Auto 092* (2008) highlighted the importance of “[protecting] fundamental rights of women victims of forced displacement caused by the internal armed conflict” and recognized the disproportionate impact of forced displacement on women. More importantly for the purposes of this study, the Court stated that “sexual violence, sexual exploitation or sexual abuse in the context of the armed conflict” presented a serious risk to displaced women. It referred 183 cases to the Prosecutor General’s Office

and the Procurator General’s Office for investigation. The Court’s ruling generated a renewed interest among civil society organizations in studying sexual violence and its relation to displacement.

As we describe in more detail below in Chapter 4, official data on sexual violence in Colombia are strongly affected by this legal framework, both because it privileges information-gathering geared toward judicial proceedings, and because it discourages reporting by victims and witnesses who may not want to become entangled in judicial proceedings. Abortion data provide a telling example of the entanglement of legal issues and reporting issues. Since a 2006 Constitutional Court decision, rape victims may legally seek abortion, on the condition that a legal complaint has been filed (Decision C-355, 2006). Some health care providers also demand an official forensic report from women seeking abortion, although it is not clear that this is legally required. As a consequence of these reporting requirements, at least some women who wish to seek an abortion likely do not. Legal, reported abortions are rare in Colombia. The Prosecutor General’s Office recently reported 125 abortions legally obtained following rape between 2007 and 2009, out of a total of 461 legal abortions (Office of the Procurator General 2010: 177). This approach is understandable. However, legal mandates have little bearing on behavior when they are not supported by practical resources. Legal protection mechanisms are largely inoperative in the context of sexual violence. For example, many interviewees emphasized that physicians may not include information on sexual violence in reports to the government, fearing involvement in judicial proceedings much more than the (nonexistent) penalties for failure to report.

Policy initiatives that might strengthen *de facto* implementation of Colombia’s *de jure* protections remain underfunded and fragmented, belying the bold pronouncements of various laws, policies and rulings.

⁶ Similar legislative actions have been promulgated concerning child rights (Law 1098, 2006) and human trafficking (in particular, Law 985 of 2005; see Humanas 2009).

In 2010, the United Nations High Commissioner for Human Rights (UNHCHR) reported that “despite significant efforts by the Attorney General to train his personnel and create special investigative units, impunity for acts of sexual violence remains widespread” (OHCHR, 2010). Viewed through this lens, efforts to decrease sexual violence via the Colombian legal system appear unlikely to be successful in the near term. Perhaps more importantly, applying legal definitions and priorities to broader documentation efforts is analytically risky. Data obtained by coding legal reports are necessarily constrained by legally recognized categories and goals. Moreover, a legal approach often privileges case-by-case understandings of sexual violence, to the detriment of the broader picture.

Toward a more systematic approach

Sexual violence is a complex social phenomenon, related in complex ways to a multitude of similarly complex cultural and social factors. As a consequence, direct information about sexual violence is limited by the domestic violence and legal frameworks described above. Considering sexual violence as a phenomenon deserving study in its own right requires adopting a systematic approach that considers sexual violence as a phenomenon in its own right, and which identifies and analyzes cases beyond those reportable through domestic violence or law enforcement sources.

During the past two to three years, at the urging of women’s and human rights organizations and with the assistance of the international community, key state actors and institutions in Colombia (e.g., the Ombudsman’s office, the Constitutional Court, prosecutors, judges and individual Congresswomen) have pushed for more comprehensive action on gender-based violence. Some of these efforts resulted in documentation efforts.

Several local initiatives stand out. In Cali (department of Valle), the Health Department has created a Domestic

Violence Observatory. Starting in 2009, institutions in the region have been obliged to report all sexual violence to the Observatory. In one neighborhood of Cali, an inter-institutional committee was established to provide comprehensive care to victims of sexual violence. However, the information gathered through the committee is different from case to case; moreover, information-sharing between the ostensibly “cooperating” institutions has been incomplete. In Medellín (department of Antioquia), the municipal government participates actively in the Comprehensive Care Center for Victims of Sexual Violence (CAIVAS,⁷ in its Spanish acronym), which itself has encouraged more comprehensive attention to sexual violence. However, because such projects remain unsupported by a coherent policy at the national or even departmental level, most are local in scope.

Both national and local initiatives are greatly affected by gender stereotypes and sex discrimination, which permeate institutions at all levels of government. These problems influence the development and execution of legislation, policies and programs; in addition, they cause serious reporting issues, including the failure or refusal to recognize sexual violence as such. For example, an Acción Social civil servant interviewed for this project asserted that it would be difficult to distinguish cases of sexual violence from acts provoked by “women’s attraction towards uniforms” (Interview, April 2010). In Sincelejo (Sucre), an attorney with the Care Center for Victims of Sexual Violence (CAVAS, by its Spanish acronym)—whose responsibilities include advising survivors of sexual violence—flatly stated that abortion was illegal in Colombia, without exception.

Gender discrimination plays a role in blocking systematic data collection on sexual violence in Colombia, and vice versa: unsystematic data collection, by masking the true dynamics and extent of sexual violence, plays a role in continued gender discrimination. Viewing sexual violence only as a domestic violence or legal issue stands in the way of accurate understandings; more importantly, it impedes prevention efforts.

⁷ Note that CAIVAS, described here, is not the same as CAVAS, described below.

Data on Sexual Violence: challenges and opportunities

A key goal of any human rights data analysis is a comprehensive understanding of the relationship between *reported* human rights violations and *total* human rights violations (i.e., between the data and the broader universe of all human rights violations that have occurred). While describing the available data is a key element of the analyst's work, systematically considering potential problems with the data is yet more important. In general, investigating human rights violations presents many methodological difficulties (see, e.g., discussions in Swiss and Jennings 2006, Spierer and Ball 2000). Until recently, nearly all attempts to measure human rights violations quantitatively have focused on fatal violations in isolation, because lethal violence is simpler to measure than non-lethal violence. Measuring conflict-related sexual violence is among the most difficult enterprises in human rights research, as we describe later in this chapter. In order to make valid numerical claims, sexual violence must be measured accurately.

Sexual violence, particularly sexual violence related to conflict, is a classic *elusive phenomenon*. An elusive phenomenon is one that is both rare and unevenly

distributed with respect to the population. Because they are rare and unevenly distributed, elusive phenomena may not appear in a random sample of a given population. Additionally, unlike death, sexual violence has no universally understood definition. It is frequently seen as shameful; consequently, many victims do not self-report. Those who do report often face retaliation or shunning. Data gathering practices on sexual violence may disregard local communities' cultural and gender norms, causing unintended consequences for both respondents and data gatherers. Moreover, distinguishing between conflict-related sexual violence and other sexual violence is not straightforward. For these reasons and more, when data on sexual violence are available, such data may be nearly impossible to interpret accurately.

In this section, we step back briefly from the specifics of the Colombian conflict to consider issues that affect all investigations of conflict-related sexual violence, from defining "data" (Section 3.1), to general measurement challenges (Section 3.2), to the specific benefits and drawbacks of particular data collection methodologies (Section 3.3).

Defining "data"

Quantitative data is any information that is susceptible to numerical measurement, whether by counting incidents ("100 homicides") or by obtaining a numerical measure on a scale ("she got a 90 out of 100 on her test"). In our consideration of quantitative data on human rights topics, including sexual violence, we typically will be referring to incident counts, which we refer to as

"count data," that is, information from which individual events (such as rapes) can be counted. Survey results, administrative records, national vital statistics services, qualitative narratives, Truth Commission testimonies, and legal case files—among many others—can all be sources of quantitative data.

In order to transform qualitative information to quantitative data, sources must be *coded* in order to derive counts and other information in a way that represents the qualitative account correctly. In order to be systematic, a coding process must include several key elements. First, it must recognize the possibility that every incident of violence may have multiple victims and multiple perpetrators. In addition, each victim may have suffered one or more violations. These may be different types of violence, or they may be repeated incidents of the same type of violence (e.g., repeated torture or sexual violence). If data are coded as “incidents” or as individual victims, the data collection may actually discard important information (Ball 1996, 2007).

The second requirement of systematic data collection is that codings must be consistent and reliable.¹ In order for codings to be reliable, all coders must independently and consistently apply the same codes, whether those codes identify acts, victims, or any other part of a report. A tool to reinforce coding reliability is the *controlled vocabulary*. These are carefully developed, usually mutually exclusive, categories that should be recognizable to all coders. For example, a controlled vocabulary on types of sexual violence should include definitions of rape, sexual torture, and gang rape (among other types) that are consistently distinguishable by observation. To ensure accurate representation of the data, each coder must produce

extremely similar results. The production of equal results by multiple coders is known as *inter-rater reliability* (IRR) (see, e.g., Silva 2002).

We refer to data that were not intended for quantitative research, but are quantifiable, as “found data.” (Found data is often also indirect data, in that it measures a proxy for violence rather than violence itself.) For example, Ball et al. (2002) coded over 600 pages of hand-written records found at the Kosovo-Albania border in order to derive an estimate of the number of Kosovar Albanians fleeing Serbian violence. In Chad, Human Rights Watch workers gathered thousands of abandoned documents, which Ball and colleagues coded to create a numerical dataset that counted the number of memos directed to the President of Chad (versus other officials). This research helped strengthen claims about the President’s control over a prison system in which political prisoners died at a rate triple that of the nation as a whole (Silva, Klingner and Weikart 2010).

Regardless of the type of data collected, sexual violence presents a number of serious challenges to any investigator. Far more than other types of violence, sexual violence data are prone to multiple types of bias, including bias resulting from serious definitional issues. Moreover, gathering data on sexual violence is associated with serious ethical issues. We discuss these general problems below.

Measurement challenges

Many factors contribute, individually or in concert, to the extraordinary difficulty of studying sexual violence in general, and conflict-related sexual violence in particular. Beginning from our initial research question on the use of indirect data, the research team determined that it would be necessary to explore other efforts to use quantitative data in the study of wartime

sexual violence. This detailed review allowed us to recognize the promise, as well as the limitations, of such efforts, and to reflect on how these limitations affect what we know regarding the nature, characteristics, pattern, and prevalence of sexual violence. Next, we consider several measurement challenges that affect sexual violence data particularly acutely.

¹ In statistical terminology, “reliability” refers to the likelihood that repeated measurements of the phenomenon of interest would produce the same results. A complementary concept, “validity,” assesses the extent to which the measurement is related to the phenomenon of interest, as opposed to a subset of the phenomenon or another phenomenon altogether. Measurements may be reliable, valid, both, or neither.

Biased samples

Within this section, and elsewhere in this study, we frequently refer to *bias*. Bias comes in many forms, but for our purposes let us define bias non-technically, as the difference between a sample measurement (e.g., the number of *reported* cases of sexual violence) and the true population value, that is, the real but unknowable number of cases of sexual violence in the population.

In quantitative analysis, bias is of particular concern when it affects different portions of the population differently. For example, it may be that doctors in (hypothetical) Hospital A diligently record every possible patient who may have suffered rape. However, doctors in (hypothetical) Hospital B for some reason decide not to fill out the paper-work. This may be because doctors in Hospital A have systematically better administrative support and are therefore better able to manage documentation (perhaps because Hospital A is relatively wealthy). Alternatively, because doctors in Hospital B might be closer to a conflict zone, they might be intensely concerned to avoid entanglement in legal proceedings or reprisals from perpetrators. They therefore do not want to be linked to any possible prosecution, and so they systematically disregard reporting requirements regarding sexual assault. If either such an imbalance occurs, a statistical comparison of the rape prevalence between the two hospitals will be deeply misleading. It would falsely show that there are more rapes in the region surrounding Hospital A than in the analogous region near Hospital B, but this incorrect finding would be the effect of bias.

A primary concern for researchers of sexual violence is *sampling bias*. Sampling bias occurs when the subjects measured (e.g., women who arrive at a given clinic for care) are not representative of the population of interest (e.g., all women in a particular area). When a sample is biased (for example, when the “sample” only includes the women who came to the clinic), statistics that describe the sample (e.g., “50% of the women at clinic X reported experiencing sexual violence”) cannot be generalized to the population of interest (e.g., “50% of women in region Y suffered sexual violence”). For

example, it may be that women who live closer to the clinic are more likely to come to the clinic; but perhaps these nearby women also are better covered by police patrols. Women farther from the clinic may more frequently suffer rape, but less frequently appear at the clinic because transportation is too difficult for them. A research study based on clinic records would inaccurately find that regions nearby the clinic have a higher prevalence of rape than regions farther from the clinic. Numerous types of bias exist, and may affect surveys. Sampling bias is a concept often used in survey research, where sample construction can seriously affect results. Clearly, data gathered entirely *unsystematically* are by their nature deeply subject to sampling bias.

Samples may also be biased by the level of training, ethnicity, sex, or other characteristics of interviewers or survey enumerators. For example, in a nationwide survey, if survey enumerators (workers who ask questions of survey respondents) were better-trained in one location than another, then these locations may appear to be experiencing different amounts of violence, even when the amounts are actually the same.

Stigma and silence

All forms of data on sexual violence suffer from some level of reporting bias. Some women may be more likely to report than others. For example, if urban, educated women are more likely to report sexual violence, then it may appear from the data that urban women suffered more sexual violence, when in fact the observation is the result of different rates of reporting. In thinking about various collections of data, it is helpful to consider what types of bias may be affecting statistics, and whether or not those biases can be ruled out.

Sexual violence is frequently associated with silence. In Colombia, victims’ reluctance to report has often been used to justify inaction. The lack of testimonies and direct data has been considered a nearly insurmountable obstacle to gaining knowledge of sexual violence.

This section addresses the silence of the victims. However, silence on the part of victims is far from the only major obstacle to data completeness; indeed, victims' silence is often enforced by weak reporting mechanisms, unenthusiastic monitoring, or other structural conditions that (unevenly) limit data that flows into quantitative analysis.

Many factors discourage victims from discussing their suffering with neighbors, doctors, police, social workers, human rights activists, survey researchers, or others. For example, in some places, sexual practices recognized as violence elsewhere may be culturally accepted; this may lead victims to minimize the importance or the abusive character of the acts. Consequently, individuals do not recognize themselves as victims of sexual violence. One survey asked interview subjects about incentives and disincentives in denouncing domestic violence. The responses reflect a tendency to minimize the relevance and consequences of the acts: 23% reported that they did not consider the acts "serious" (ENDS 2005: 344).

Even in highly developed peacetime contexts such as the US criminal justice system, a majority of rape victims do not report their experiences to law enforcement or other authorities; many do not even disclose an experience of sexual violence in the context of a confidential survey investigation (e.g., Koss et al. 1993, Fisher 2009, Cook et al. 2011). Indeed, many college women in the US whose experiences constitute sexual violence do not, themselves, identify it as such (Koss et al. 1993).

What we have described as victims' "silence" is known technically as *disclosure bias*. Disclosure bias is different from *selection bias*, which we discuss more thoroughly below. Disclosure bias (also known as "fear of disclosure bias," cf. Biemer and Lyberg 2003: 145) occurs when respondents fear disclosure of their full and honest answer, and hence edit their responses.

The cost of disclosure varies in significant but unpredictable ways among victims of sexual violence. For

example, in communities in which public gang rapes occurred, there is no additional cost of disclosure, because respondents' status as rape victims are already known to neighbors who witnessed the event. If, on the other hand, most rapes occurred in private, victims may have the option to keep the incidents secret, protecting themselves against subsequent stigma. From the analyst's perspective, this means that reporting rates may vary with the *modus operandi* of the perpetrator, creating an unmeasurable but critical bias in the relative proportions of public versus private sexual violence.

Victims may also have well-founded concerns that their lives could become considerably worse by disclosing that they have been raped. They may rightly fear criticism or rejection by partners, family or community; they may recognize that the police and prosecutors are unlikely to be sympathetic, or even if they are, the probability of justice is low; they may not know how to approach the justice system; they may know that there is some chance that the perpetrators will retaliate against them (or their families) if they speak out. Victims must weigh these and many other factors as part of their reasoned decisions about whether to report sexual violence.

We note explicitly that the factors that victims consider as they decide whether or not to disclose what has happened to them may be very different for victims in different communities. For example, women from certain language groups or religious groups that predominate in one region may be less likely to report, while women from other language or religious groups predominant in a different region might be less constrained by cultural factors. A study comparing the northern and southern regions would therefore find that there is "more" rape in the south than in the north. However, this finding would tell us about who is willing to talk about rape — not about who has actually suffered it. The complex motivations and counter-motivations to talk about sexual violence create a heterogeneous and probably unmeasurable pattern of disclosure bias facing any quantitative study of rape.

Silence is not uniform. Many courageous victims choose to speak about their suffering. While many factors contribute to silence surrounding sexual violence, many other factors encourage openness and voice. In some countries, there are active programs that incentivize victims to report sexual violence, for example, by providing medical service gratis to victims; the same service may be very expensive to people who are not victims. Certainly many victims who would otherwise remain silent are motivated by this incentive to report the abuse they suffered. There may also be some people who choose to falsely report that they are victims of sexual violence in order access services that would otherwise be inaccessible.

Any quantitative analysis of sexual violence will be heavily influenced, even determined, by the immensely complex combination of factors which influence each victim's decision about whether it is to her benefit to report or conceal the violence done to her.

The structural enforcement of silence

“Silence” is too easy an explanation. While responsibility for silences around sexual violence is easily placed on the victims of sexual violence, families, communities and local elites (e.g., health professionals, forensic doctors, judges, prosecutors, among others) also play a key role creating silences. At every reporting stage, information can be lost. As suggested in the example above and substantiated in several interviews, health data are often incomplete because health professionals are reluctant to complete the required forms, or to inquire beyond what patients initially say or show.

For example, a community with a well-organized sexual violence prevention and outreach program linked with sympathetic, competent police and forensic investigators and an aggressive prosecutor may get a higher proportion of victims demanding justice than a community where these organizations are less helpful. Ironically, a quantitative study would

find that the first community has “more” rape than the second because reporting rates are likely to be higher there. Furthermore, even if a study were a probability-sample survey unconnected to the justice process, victims in the first community would be more likely already to have reported their cases to various sympathetic and supportive others. In general, victims in a community where they know there is support would be more comfortable talking about their cases relative to victims in the second community. Consequently, a survey would inadvertently and unknowingly reproduce the bias already evident in convenience sample studies of reported cases. In the worst case, the survey might claim that the consistency with convenience sample evidence corroborated the survey results. The earlier-described example comparing two hypothetical hospitals is another mechanism by which structural reporting factors could create apparent but false differences in rape prevalence rates.

Many organizations in Colombia work to make the structural conditions underlying lack of reporting more visible. These conditions include impunity, lack of political will, entrenched domestic violence, abusive sexual practices in society and discrimination against women. Advocates have proposed new policies and structural changes to create space for victims to report sexual violence and seek assistance. Such policy decisions *may* alter victims' reporting decisions.

Despite even the best conditions, in an unknown but probably substantial fraction of all cases, victims keep their secrets. Analysts and researchers should always remember that victims know best how to manage the danger of disclosure to survive in their communities. They may have made conscious decisions to keep their experience private. Simply insisting on more testimonies places pressure on victims—and does little to mitigate the biases inherent in unsystematically gathered data. We return to this serious problem below in section 3.2.7.

Definitional issues: What is “sexual violence”?

Linguistic practices lead to selective amnesia, by eliminating certain elements of the past and the preserving others.

—Reed Hurtado 2010:103, citing Stanley Cohen, *States of Denial: Knowing About Atrocities and Suffering* (Cambridge, Polity Press, 243)”

The World Health Organization (WHO) has defined “sexual violence” as “any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic, or otherwise directed, against a person’s sexuality using coercion, by any person regardless of their relationship to the victim, in any setting, including but not limited to home and work” (WHO 2002:149). However, within this very broad definition, there exists considerable latitude for interpretation of what “really” constitutes sexual violence. Although rape is the most common form of sexual violence discussed,² the term also encompasses a broad set of acts of violence which, by one definition, impinge on “the intimacy, the sexuality, and the reproductive organs of the persons...as well as the affective and erotic relations that they have or want to establish” (Humanas 2009:39).

Both components of the term—“sexual” and “violence”—may have very different connotations over time, cultures, or regions. For example, when conducting interviews with survivors or service providers, questions are generally phrased in the appropriate local vernacular, which may or may not accurately represent the definition of sexual violence actually under consideration. Leiby notes, for example, that the legal definition of rape influenced how testimonials were classified in the Peruvian Truth Commission; survivors who were forced to marry their rapist were not seen as victims of rape, and male victims of sexual abuse were commonly viewed as victims of

torture, rather than sexual violence (Leiby 2009). In the Democratic Republic of the Congo (DRC), the World Health Organization found that sexual violence for which no witness would testify to the use of force was not recorded as such, even when the victim reported the assault directly (Marsh et al. 2006).

Ways of speaking about sexual violence also vary considerably from place to place, time to time, and group to group. Indeed, many languages do not have a direct translation for rape (Smith 2006: 13). Culturally appropriate translations are vital to ensuring that respondents understand exactly what is being asked, and that they answer truthfully (Marsh et al., 2006: 9). In attempting to avoid such misinterpretations, some investigations on sexual violence have left the definition of “sexual violence” vague, to be interpreted by the respondent (e.g., Vinck et al. 2008: 34; Nduna and Goodyear 1997; Adhikari et al. 2007). However, later studies have shown that, at least in some contexts, this tactic does not lead to increased reporting (Fisher 2009). Moreover, statistics derived from different definitions of sexual violence cannot and should not be compared with one another.

Creating an incident description by asking about specific actions, rather than using vague or contested terms, is one way to mitigate this problem. Swiss et al. (1998) and Swiss and Jennings (2006) endorse the use of focus group discussions among survivors to determine appropriate working vocabularies for sexual violence and its effects. In Liberia, the Swiss et al. research team observed that women did not use the term “rape;” rather, they talked about “forced sex” and other specific acts of sexual coercion (Swiss et al. 1998: 626). In medical surveys, specific acts constituting sexual violence are frequently discussed alongside other, unrelated, specifics, a tactic that has proven effective at gathering comparable data.

² Farr, in a comparative review of findings on sexual violence, notes that the terms “sexual violence,” “sexual assault” and “rape” are used interchangeably (Farr 2009: 4); see also Leiby 2009: 83.

Further definitional issues: which sexual violence is “conflict-related”?

In some settings, conflict dynamics indicate precise differences between conflict-related and non conflict-related sexual violence. The Central African Republic case now before the International Criminal Court is one such case. Here, a high incidence of rape and other acts of sexual violence, perpetrated by armed individuals, appears to have been “a central feature of the conflict” in 2002-2003 (ICC Office of the Prosecutor 2007), and was clearly associated with armed groups, rather than with non-combatant perpetrators. This clarity is reinforced by the fact that the perpetrators came to villages only for a short while, to commit violent acts, and then left. Some types of associated conduct may also connect sexual violence unambiguously with a conflict. Its use by military personnel during military operations, such as attacks, massacres, looting, detentions or kidnappings, forced displacement, and other military actions is a clear example.

However, these clear cases are rare, relative to the total amount of sexual violence perpetrated during, and therefore potentially associated with, armed conflict. Occasionally, the *modus operandi* of the crimes provides a clue: for example, gang rape and public sexual violence are frequently associated with wartime rape (e.g., Cohen 2010). The population targeted and the identity of the perpetrator(s) may also prove useful. Qualitative data and research methods are essential as researchers make such distinctions.

Demographic inquiries frequently employ a counterfactual measurement strategy as they determine which violence is “conflict-related” and which is not; in this sense, counterfactual refers to an argument of the form “what would have happened to violence (homicide, mortality in general, rape, etc.) had there been no conflict?” This technique has been used notably to measure “excess mortality” in Cambodia

(Heuveline 1998) and Timor-Leste (Silva and Ball 2007). The notion of “excess” in “excess mortality” refers to deaths exceeding the amount which would have been observed if pre-war patterns had continued (i.e., if the counterfactual condition had held). Implicitly, demographers consider the pre-conflict level to represent a “normal” baseline, and assume that the measured excess deaths are “conflict-related.”³

If baseline levels of sexual violence were known—they are not—this type of measurement strategy could be quite effective. Furthermore, debates about conflict-related excess mortality have often turned on precisely the point that choosing the baseline may involve substantial political assumptions, either because there is no meaningful pre-conflict data, or because such data are for some reason inappropriate. In mortality studies, changing the baseline can change the estimate of excess mortality by a factor of two or three (see Human Security Report 2010). The possibility of counterfactual measurement of sexual violence would be an incentive to determine baseline levels, but definitionally-accepted and politically-neutral baseline measures of sexual violence do not currently exist for any country, and are unlikely to be created.

Is there a “best” time to collect data?

Most quantitative studies of sexual violence in armed conflict take place in a post-conflict setting after institutions such as humanitarian and relief entities are installed in the region, and hospitals and refugee camps have been established to aid the transition to peace (Nduna and Goodyear 1997: 4; Ochieng 2005: 4). These institutions are critical to ensuring safe access to respondents and other data. Investigations concurrent to the crisis —“rapid assessments” of gender-based violence, as they have been termed by UN agencies—typically serve the general goal of documenting that an emergency situation exists.

³ But note that studies of excess mortality can be quite contentious. For example, consider recent debates over findings on excess mortality in Iraq (Roberts et al. 2004, Burnham et al. 2006, Giles 2007, Guha-Sapir and Degomme 2007).

Brief interviews with victims and humanitarian observers frequently form the basis of “rapid assessment” analyses. For example, USAID conducted an overall assessment of sexual violence and programmatic responses in the DRC using narratives gathered from human rights groups, hospital records, and interviews with representatives in 2004. For the authors of the report, a rapid assessment of the existence and observed patterns of sexual violence was more relevant to policy and program decisions than a statistical determination of prevalence. In the earliest stages of a transition, they state, “survivors need most to be helped, not counted” (USAID 2004). Jennings and Swiss (2000: 3) argue against waiting for full needs assessments before programs are deployed, stating that “the protracted nature of many of these conflicts...makes it irresponsible to wait until the conflict is over and it is ‘safe’ to set up much-needed programs for women who could have benefited from them earlier.” At the same time, they acknowledge that rapid assessments are generally less precise than in-depth surveys implemented in consultation with local stakeholders.

A second argument for rapid assessment is failure of memory, usually referred to as “declining recall”: survivors may be less likely to remember or divulge their experiences of sexual violence after conflicts have ended. In addition to recall issues, Jennings and Swiss observe (2000: 3): “people who have experienced rape and sexual coercion during war are less and less willing to discuss them as time passes. Some women feel that they want to put the past behind them and avoid talking about their experiences during a war that is finally over.” But the opposite may also be true. In some conflicts, women are more likely to report sexual violence as time passes and the danger of reporting decreases.

Researchers must also consider tradeoffs related to the length of the study period itself. Due to the stigma associated with sexual violence, data collection requiring direct information from respondents generally occurs within a matter of weeks. As study periods increase, enumerators have more contact with local

populations, and the likelihood that the purpose of the survey will be revealed increases. Hynes (2003) notes that during a Reproductive Health Response in Crises Consortium (RHRC) study of gender-based violence in Timor-Leste, participation declined when interviewers remained in an area for more than a day. Hynes attributed reduced rates of participation to respondent fear of exposure as a victim of sexual violence. Unfortunately, extremely short study periods also have drawbacks: shorter study periods typically do not include time for researchers to build trust within a community under study, making accurate and complete reporting significantly less likely.

Research ethics: Can data-gatherers adequately respect and protect respondents?

The considerations outlined above concern the capacity of research to inform us about patterns and magnitudes of sexual violence. However, sexual violence researchers must grapple not only with the analytical implications of response bias and stigma, but with their social, emotional, physical, economic and other costs to respondents.

Some researchers have observed that respondents generally feel afraid to identify perpetrators, particularly if the perpetrators still reside in the same community or hold positions of authority. In 1993, the UN Special Rapporteur for the Situation in Yugoslavia commented (Mazowiecki 1993):

Many women will not talk about their experience of rape for fear of reprisals. Many women interviewed by the team of experts personally knew, or knew the names of, the men who had raped them. Some were reluctant to tell the experts the names of the perpetrators because of fear for their own and their family's safety.

Swiss and her co-authors (1998: 629) observed that respondents may have been open to participating in a Liberian survey because the study was framed as a public health investigation, as opposed to a survey on human rights, and did not discuss perpetrators.

Our Colombian interviewees also noted increased participation when perpetrator data were not collected.

In weighing the risks and benefits of requesting perpetrator information, Jennings and Swiss (2000:4) advise researchers to consider whether ex-combatants or likely perpetrators still live in the community to be investigated. If so, they advise against surveys or other investigations that may identify perpetrators. If identifying perpetrators is central to the mission of the survey, researchers may use other precautions in order to ensure the protection of respondents. The World Health Organization (WHO) Multi-Country Survey on Domestic Violence, for example, elected not to interview men, in part because this would have alerted possible perpetrators to the nature of the study and the questions being asked (García Moreno et al. 2005: 7).

Ensuring the privacy of the interview setting is also particularly important when investigating perpetrators of sexual violence. Amowitz et al. (2002) noted that the lack of privacy during household interviews in Sierra Leone may have caused underreporting of sexual violence, particularly sexual violence committed by family members. The RHRC methodology, by contrast, requires respondents to visit a location outside the home for interviewing after “locators” visit the household to invite women to be interviewed. Though the visibility of the survey increased due to this two-stage approach, the actual questions and responses were kept private, arguably increasing the response rate and accuracy of the data (e.g. RHRC 2006: 27). In Liberia, Swiss, et al. interviewed women in marketplaces and high schools, in addition to households. While the marketplace group discussions regarding sexual violence had a low response rate, the high school interviews had more success because the selection of interviewees were done by public lottery, with no stigma attached to which women were chosen for interviews (Swiss et al. 1998: 627).

Survey researchers who defend their interview practices argue strongly that they work to protect the anonymity of their interview subjects, and especially, the confidentiality of the respondents’ answers. In this

sense, they are trying to lower the cost of disclosure, and thereby increase the respondents’ willingness to speak fully (see Johnson et al. 2010). However, considering the situation from the respondents’ point of view, although the researchers’ efforts may reduce their risk, the risk is not zero. Furthermore, while the respondents may have little to lose by disclosing this sensitive information (besides possible retraumatization, see below), respondents may have nothing to gain, either.

Although asking about perpetrators (whether strangers or family members) can be useful in measuring patterns of sexual violence, these types of questions may pose a great a risk to respondents. Privacy of interviews may be better ensured by moving the location of the interview outside of the house, or by limiting the reference population if likely perpetrators are still living in the community. The safety of the respondents is paramount, and a researcher may decide that other data sources, such as service provider data or previously collected testimonials, could provide adequate information regarding the profile of perpetrators.

Narrative interviews and surveys also may “retraumatize” victims by soliciting information directly. Swiss and Jennings, among other scholars, suggest that engaging survivors should be implemented only as a last resort, where alternative data sources are not available (Swiss and Jennings 2006; Leiby 2009: 92).

Definitional, temporal and ethical issues affect all studies of sexual violence, including both qualitative and quantitative investigation. However, these measurement challenges affect different measurement strategies in varying ways, as we describe in the following section.

Comparing methods of quantitative measurement

Researchers attempting to measure, evaluate or understand conflict-related sexual violence are presented with a wide range of potential methods; none of these

methods is without significant benefits, or significant drawbacks. These choices may depend on a number of variables: time considerations, research budget, access to respondents within the location of study, local understandings of sexual violence, already-existing data sources, and threats to the safety of both the participants and the fieldworkers. Methodological choices, in turn, affect the accuracy, credibility and generalizability of the study. In many cases alternative results could be reached, for example, by using different methodologies, defining sexual violence in different ways, or by looking at different subsets of the populations.

A number of international bodies, including the United Nations and, in particular, the World Health Organization, have convened seminars in recent years to consider how data on sexual violence might best be gathered. Among the few obvious inferences to draw from these meetings is that “appropriate” methods are highly context-dependent. At the same time, however, many organizations have focused on *standardizing* data gathering methods across contexts, typically with the goal of crafting statistics that are comparable across countries and conflicts. The World Health Organization, in particular, has recommended standardized practices for measuring sexual violence, in order to establish “benchmarks for measuring progress in preventing and addressing sexual violence” (World Health Organization 2006).

The Gender-Based Violence Initiative of the RHRC emphasized the need for a standardized survey methodology, noting that, “[t]o date, there has been no comprehensive compilation of gender-based violence (GBV) field tools, nor any *standard method* for evaluating ... programmatic effectiveness or crosscultural transferability” (RHRC 2003: 3; emphasis ours). In addition, the RHCR authors stated that a “critical limitation to addressing GBV is the absence of data on the nature and scope of GBV. Even when available, methods for GBV data collection are not sufficiently standardized to allow for comparability within and across cultures” (RHRC 2003: 5). Yet the RHRC itself clearly recognizes that standardized methods may

not be applicable in all settings. Below we discuss the benefits and drawbacks of population-based surveys and convenience (non-random) samples.

Population-based methods

Population-based surveys have the potential to determine the prevalence of sexual violence in an area, given that certain conditions are met. Among the most important of these conditions are as follows: (1) the sample population participating in the survey is representative of the general population of interest (this general population is referred to as the “target” or “reference” population); (2) responses to the survey are truthful and complete; and (3) each individual in the reference population has a known probability of selection into the sample. To put these requirements simply: in order for a survey to be representative, researchers must know how large the target population is, how large relevant sub-populations are, and how to elicit a full and correct answer. Especially where the topic is sexual violence, each of these requirements is difficult to meet in its own right. Conflict and post-conflict contexts add another dimension of complication.

War-affected populations typically are highly mobile, meaning that the reference population may change considerably during the period of study. Moreover, such populations also have widely varying, and frequently unknown, mortality rates (see, e.g., Marsh et al. 2006). In addition, survey data may suffer from any of the biases considered above, including disclosure bias, selection bias, and biases that result from survey design issues such as interviewer skills, definitional issues, and the effects of question ordering (see, e.g., review in Schwartz 2000). In the context of sexual violence in particular, interviewer skill can strongly affect a survey’s findings. Interviewers trained specifically to research sexual violence in a particular context have been shown to elicit a higher response rate and more detailed responses than those who have less specific training (Jansen et al. 2004; Kishor 2005). It is still an open research topic whether a higher response

rate represents a better approximation to the true prevalence rates. A final significant barrier to full and correct survey answers is the co-occurrence of sexual violence and death. This co-occurrence varies from conflict to conflict (in some conflicts, rape is often a precursor to murder; in others, it is not), but it implies that a potentially large subset of victims of sexual violence cannot report their experiences.

Population-based surveys are expensive and time-consuming, especially during or immediately after a conflict. So why use them? The quest for standardization and benchmarks may explain the frequent use of population-based surveys in quantitative studies of sexual violence in armed conflict. These investigations necessarily assume that prevalence can accurately be investigated using survey methods (see, e.g., Smith 2006, Amowitz et al. 2002, World Health Organization 2005). The RHRC's Gender-Based Violence Initiative, for example, focused on population-based surveys as it developed research tools to assist in the early identification of gender-based violence (GBV). Yet the research designs that are likely to produce full and truthful responses may be precisely those which limit scope and generalizability.

Survey methods in conflicted and post-conflict situations

A few examples of well-known surveys on sexual violence illustrate the practical impact of some of these considerations. Johnson et al. (2008) conducted a carefully-sampled survey of Liberians' experience of sexual violence, using best-practices household selection methods. This is among very few population-based surveys that interviewed both men and women in the general population, outside of an internally displaced persons camp. Within forty randomly selected villages, households were selected according to the World Health Organization's Expanded Program of Immunization method (Bennett et al. 1991). This represents a significant advance upon studies that select from among internally displaced persons (e.g., Amowitz et al. 2002). However, there remain significant questions about

the Johnson et al. findings, similar to the questions that would affect any survey on a taboo topic. For example, the reference population did not include those 18 and under, and thus did not report on sexual violence against minors. Moreover, the interviews may not have guaranteed adequate respondent privacy; survey enumeration strategies are not focused on long-term relationships of trust. Consequently, as a researcher remarked at a recent conference, "It would be like somebody walking up to your house in the United States, saying hello, and asking your husband if you'd ever had an abortion. Are you really going to answer that truthfully?" These methodological difficulties might suggest that sexual violence should be under-reported.

Other factors suggest *over*-reporting of sexual violence in Johnson and colleagues' Liberia survey. Forty-two percent of female former combatants and 9.2 % of female non-combatants reported experiencing sexual violence at some point in their lifetime. The "lifetime sexual violence" measure makes it impossible to distinguish between conflict-related and non-conflict-related sexual violence. More problematically, Johnson et al. used an extremely broad definition of "sexual violence" in their investigation, making it similarly impossible to distinguish between rape or gang rape versus verbal harassment, among other issues. Finally, the study was conducted well after the conflict ended, during a period when attention to sexual violence in Liberia was extremely high. In such a context, it is conceivable that respondents may have over-reported sexual violence in order to qualify for assistance. This phenomenon has been documented in neighboring Sierra Leone during the post-war period (Utas 2008).

To be clear, the Johnson et al. studies in Liberia and DRC are among the best population-based surveys of sexual violence outcomes. Yet, as these criticisms make clear, specific dynamics of violence may be hidden when conflicts arise between methodological approaches and (for example) local culture or respondent incentives. In Liberia, a smaller, but more reliable and valid, exploration of sexual violence is that conducted by Swiss et al. (1998) beginning in 1994. Swiss and her

co-authors explored the prevalence of sexual violence among three populations in the capital city of Liberia: high school girls, market women, and teenage girls not in school. Swiss et al. recruited local female health workers, with whom they then began the study by conducting extensive focus groups. This allowed the creation of a recognizable controlled vocabulary of sexual violence as well as the establishment of trust between enumerators and respondents.

Peacetime methodological debates

In the U.S. context, debates regarding the measurement of rape typically center on the convergence or divergence among the number of rapes reported in the National Crime Victimization Survey (NCVS), the number of rapes reported through other survey methods, and the number of rapes reported to law enforcement. (For an overview, see Koss [1993, 1996], and Chapters 6 and 7 in Loseke et al. [2005]). Survey results regarding victimization and reporting vary widely (see, e.g., Fisher 2000, 2003, 2004)

However, consensus appears to be emerging around the superiority of behaviorally specific screening questions (Cook et al. 2011). For example, using a quasi-experimental design, Fisher (2009) finds that asking several extremely specific screening questions leads to a nearly tenfold increase in college women's reports of completed rape (from 2.0 per 1000 female students to 19.34 per 1000), relative to broader screening questions. This finding implies that the NCVS (which uses broad, rather than specific, screening questions) likely suffers a significant downward bias.

A key caveat regarding these findings lies in their population of reference: U.S. women of college age. Relative to most conflict-affected populations, U.S. college women live in extraordinarily safe environments; most can trust that their responses will remain confidential. U.S. women do report that fear of retaliation is a consideration that may lead to non-reporting. However, fear of retaliation is a much larger risk for women in conflicted situations. Moreover, authors studying different contexts have noted the importance

of other factors in increasing reporting, and the importance of balancing increased reporting against protecting respondents' safety.

The effects of variables such as question order (e.g. Schwartz 2000) and context appear to play a significant role in survey results regarding sexual violence. There is extensive debate about how question wording and ordering affects responses. Do certain patterns elicit all the incidents the respondent could report (i.e., get a full response), or in some cases do respondents report what they think the interviewer wants to hear (sometimes called interviewer or courtesy bias)?

Larger issues with population-based methods

Regardless of the survey's design or the enumerators' skill, the stigma associated with reporting sexual violence will always challenge the assumption that respondents are answering fully and truthfully (see, e.g., Jennings and Swiss 2000: 2; Smith 2006:16; Leiby 2009: 80). Moreover, many women may not define an experience of sexual violence as such; the line between "coercion" and "consent" is unclear, and hotly contested (e.g., Koss 1993, 1996), even in peacetime. Conditions of armed conflict blur this line still further. Limitations like these recently led Baaz and Stern (2010) to argue flatly that a quantitative assessment of sexual gender based violence (SGBV) in the Democratic Republic of the Congo (DRC) would be "impossible" (8).

Also considering sexual violence in the DRC, Johnson et al. (2010:561) discard the possibility of over-reporting, arguing that enumerators clarified that respondents would receive no payment for their participation. Johnson et al. concede that there may have been underreporting correlated with some social factors. However, they contend that, because the prevalence rates they report are broadly consistent with other studies, the effects must not have been substantial. In our assessment, the conclusions reported by Johnson and colleagues are stated with potentially unwarranted levels of confidence. This confidence relies

on major assumptions about reporting patterns; thus, we conclude that significant additional research is necessary—in particular, research that assesses variations in the likelihood that individual women report sexual violence.

In addition to these issues, analysts of sexual violence must carefully consider the fact that sexual violence, especially conflict-related sexual violence, is an *elusive phenomenon*, meaning that it is sufficiently rare and/or sufficiently unevenly distributed that it is unlikely to be recorded in a random sample of a population.⁴ One potential solution to this issue is adaptive sampling, in which researchers study only a small portion of the population, typically the sub-population that is thought to have been targeted for sexual violence. Again, however, altering the survey design reduces one’s ability to make inferences outside the sample.

Using adaptive sampling, researchers adjust their sampling plan while in the field, based on the previous location in which surveying was carried out (Thompson and Seber 1996). Essentially, each new observation is used to determine the next sampling unit. This method contrasts conventional statistical sampling, in which the entire sample is determined and fixed before any data are collected. Adaptive sampling and other related techniques are designed to sample elusive phenomena (such as sexual violence) more efficiently than conventional designs. They do so by exploiting either the spatial clustering of the underlying phenomenon or the social network of the reference population. However, while adaptive sampling can lead to more efficient data collection in the field, adaptive samples require analyst to use alternative estimation methods, and these methods require very strong assumptions in order to produce accurate (“unbiased”) results (Goel and Salganik 2010). Unfortunately, the required assumptions seldom hold for populations affected by conflict.

Non-random samples and convenience data

The most common way to collect data on conflict-related sexual violence is through testimonies or other forms of direct contact with victims of violence. These rich qualitative accounts have important benefits; for example, many feminist scholars prefer qualitative accounts as reflecting the true lived experiences of women who have survived sexual violence. However, as is clear from the discussion above, when aggregated, such accounts are likely to be biased—not in the sense of being incorrect or untrue, but in the sense of reflecting on individual victims rather than populations. This is unsurprising: qualitative accounts’ particular strength is in their ability to convey the particularities of individual experience, rather than reducing victims to a population of “like units.”

However, when the question concerns a population (e.g., “How many individuals suffered sexual violence in this area?”), what is necessary is precisely the sort of representativity that individual testimonies cannot provide—unless the testimonies were collected from randomly-selected respondents. As discussed in the previous section, patterns in a population can only be estimated from a carefully drawn random sample or other probability-based model. From a sampling perspective, most collections of testimonies, case files or media mentions known to an individual organization are called *convenience samples* or non-random samples. Most Colombian data analyzed for this study were created using convenience sampling, including reports from women rights’ groups, press data, forensic reports at INML, medical data, police reports and so on. A key difference between convenience data and (most) survey investigations is that many self-reports and testimonies are open-ended narratives, whereas surveys frequently ask specific, closed-ended questions. Differences between the answers achieved using these methods may be extremely telling. Indeed, no study of any form of violence is complete without careful

⁴ Even in a context such as the DRC, where sexual violence is thought to be relatively common, it frequently occurs in geographically specific ways. If randomly selected villages do not happen to be villages targeted for sexual violence, then reported rates of sexual violence in such a survey will be very low.

attention to qualitative details. Surveys should take their cue from testimonies if they are to avoid issues of bias: What terms do victims use? Does there seem to be a pattern of attack? How do women describe their experiences and the effects of those experiences?

Convenience data sources may include many types of information. Some of the most common are coded transcripts of focus groups or individual oral histories, records and observations from service providers, vital statistics registries, and other non-survey demographic information. In some cases, focus groups and narrative interviews have helped frame the focus of a quantitative analysis, as well as increasing the capacity of community leaders to acknowledge and address the issue (see, e.g., Ochieng 2005:7; Omanyondo 2005; Nduna and Goodyear 1997). Women's Rights International (Jennings and Swiss 2000) suggests a "participatory" research methodology, in which women from a conflict-afflicted area help determine the survey questions asked to victims, and how victims are approached. Nduna and Goodyear (1997) note that discussions with members of the respondent community is critical in guiding a research design: "The loose format of the interviews allows the interviewer to probe for further information which may not be anticipated in the design of a survey instrument." While analysts cannot generate reliable findings on the prevalence and patterns of sexual violence based on narrative interviews alone, the process could help a researcher formulate hypotheses that quantitative data can confirm or refute, in addition to refining the survey instrument or methodology.

Records and observations from service providers, such as health facilities, provide a rich source of data on sexual violence in armed conflict. (see, e.g., Smith 2006; Kerimova 2003: 1068; Médecins Sans Frontières (MSF) 2007; Physicians for Human Rights 2002: 36). For example, MSF has published numerous reports detailing cases of sexual violence observed at clinics located in conflict areas, using medical records (e.g., Médecins Sans Frontières 2007).⁵ The United Nations

Population Fund (UNFPA) conducted a review of health centers in the DRC in 2007, finding about 50,000 reported cases of rape since 2003 (Wakabi 2008:16).

However, service provider data are a poor source for population level assessments. In particular, the ethical obligations to keep the victims' names confidential mean that it is impossible to determine when the same victim presents in several different clinics. Aggregating data from across clinics (or even from the same clinic over a long period) is likely to count the same victim more than once. Furthermore, the victims who are multiply-counted are likely to be systematically different from the victims who present only once, perhaps because the multiply-counted require more serious medical assistance, are relatively wealthier, or have better access to transportation to the clinic. Thus the multiple-counting bias can be systematic and substantial. Of course, many, perhaps most victims are never seen at any clinic, so service provider data both overcounts (due to undetected multiple reports of the same events) and undercounts (because of selection bias). Nonetheless, data from service providers can provide insight into the effectiveness or reach of services aimed towards victims of sexual violence, and can provide a basis for comparison within a population that has ready access to these services. To be more explicit, service provider data can tell us a great deal about who accesses services, for what reasons, and whether their treatments are successful. For this reason, the World Health Organization recommends building the capacity of all service providers to collect and disseminate information regarding violence against women (UNDAW 2005: 17-18).

Demographic data on mortality and pregnancy rates may also support some inferences regarding rates of sexual violence, but this type of study is necessarily very preliminary: the empirical relationship(s) between demographic statistics and sexual violence are unknown and may vary between conflicts (Marsh et al. 2006: 11; see also Silva, forthcoming). Still, in some cases demographic data can prove useful as

⁵ Note that MSF in Colombia has not yet released findings from its work on sexual violence, apart from general conclusions.

part of a broader assessment. Swiss and Giller (1993) estimated the minimum prevalence of rape during war in the former Yugoslavia using reports of pregnancies resulting from rape. According to general health statistics, at least 1% of incidents of unprotected sexual intercourse result in pregnancy. By dividing the observed number of pregnancies due to rape (there were 119 such pregnancies) by .01, the authors reached a conservative minimum estimate of 11,900 victims of rape during the Balkan conflict. They note, however, that the objective of such an exercise is not to generate exact prevalence, but to “use medical data to suggest a scale of violations that cannot be determined from individual testimonies alone.”

Multiple systems estimation

As we discuss at greater length below, we believe that the available quantitative data cannot support factual claims about sexual violence in Colombia. Instead, we argue that quantitative data may be used as one component of a detailed investigation testing a specific, local hypothesis. As discussed above, survey research is not a panacea where sexual violence data are concerned, because of their insensitivity to local dynamics and the difficulties of reporting bias. Convenience and testimonial data, on the other hand, provide detailed local knowledge but are difficult or impossible to generalize.

One statistical procedure can be used, under certain circumstances, to craft reliable quantitative estimates of violence from detailed convenience data sources. This is Multiple Systems Estimation (MSE) (e.g., Ball et al. 2002, 2003; Guzmán et al. 2007). MSE requires multiple data sources, each with considerable amounts of identifying information for every case. By analyzing the overlap between multiple datasets (“systems”), it is possible to make inferences regarding the cases that were not captured by any list. MSE, also known as capture-recapture analysis, is a well-established demographic approach that has been validated for many types of data, including wildlife populations, human populations, incidences

of disease, and lethal human rights violations (e.g., Chandra Sekar and Deming 1949; Chao 1989, 1992; Darroch et al. 1993, Fienberg et al. 1999; Baillargeon and Rivest 2007; for uses in human rights contexts, see Brunborg, Lyngstad and Urdal 2003). In the technical terminology of MSE, disclosure bias is a form of “capture heterogeneity.”

MSE faces special difficulties in the case of sexual violence. In particular, given the sensitivities surrounding sexual violence, victims and victims’ organizations are frequently unwilling to share identifying information, including names of the victim, dates, places, and perpetrators of the crime. Such sensitivities also strongly affect the populations likely to report, and likely to report with detailed information. This raises the possibility that some types of victims, or some types of cases, would not be estimable via MSE analysis because of data sparseness. This is a problem for all MSE analyses, but in the case of lethal violence (for example) it is frequently mitigated because there are much lower confidentiality requirements for information about deaths than about surviving victims of rape. Furthermore, MSE provides several technical methods (such as stratification) to control some kinds of bias. By creating separate estimates for groups likely to report at different rates (assuming that any information on such groups exists), rigorous estimations may be possible. However, no such estimation has yet been performed for victims of rape.

MSE faces an additional hurdle in the case of non-lethal violence: it cannot reliably distinguish between victims and incidents of violence. For example, a victim who appears in two datasets may represent the same case (one episode of sexual violence counted by two organizations) or two different cases (two episodes of sexual violence against the same victim, captured by different organizations). A useful interpretation of this difficulty is that MSE for non-lethal human rights violations provides estimates of the number of people who have suffered the violation, rather than the number of episodes of violence. Nevertheless, such a measurement would represent a major advance upon existing information.

We believe that MSE for sexual violence would be an extremely problematic approach, at least in the near term. On the other hand, while MSE estimates might prove partial (in the sense that they might exclude large victim populations), they could provide considerably stronger evidence of patterns and magnitudes among

populations that do report sexual violence. More generally, the feasibility study research team wishes to emphasize the complementarity of qualitative and quantitative knowledge, and the importance of understanding local dynamics and contexts in evaluating quantitative estimates.

Key data considerations

There exist well-established rules for quantitative understandings of data production processes. With any type of sample (random or convenience; survey or administrative or any other), measurements drawn from a sample are always *estimates*, and conclusions about populations larger than the sample itself are *always inferences*. In order to be understandable, statistical estimates must be accompanied by a measurement of the uncertainty of the estimate (either a “confidence interval” or margin of error). Confidence intervals are the established statistical measures for evaluating potential biases and errors—that is, for evaluating quantitatively the data production process.

Confidence intervals can be interpreted in two ways. For traditional estimates, if we speak of a “95% confidence interval,” we mean that if we repeated the estimation procedure hundreds of times, in 95% of those trials the result would fall in the interval. An alternative interpretation is that of Bayesian statistics. Here, the confidence interval has a more straightforward interpretation: based on the data, there is a 95% likelihood that the true population value lies in the interval. A form of confidence intervals called “margins of error” are usually presented in non-technical publications, and they are the defining feature of statistical estimates. Estimates are essentially meaningless without them. For example, without a margin of error, we don’t know if a statistic, say “50%,” means “50% plus or minus 2%” or “50% plus or minus 49%.” The first of these examples is very meaningful; the second is nearly meaningless.

Yet, as in research more generally, quantitative approaches must be complemented by qualitative insights. In the case of data production processes, this means that, prior to quantitative analysis of uncertainty, responsible researchers must think imaginatively about the data collection and coding process, consider specific potential biases, determine whether such biases are or can be controlled, and carefully establish to which population (if any) conclusions from the data might apply. As we have seen, even carefully sampled surveys may suffer from biases that cannot be fully controlled, or adequately quantified. Recall that even the most exemplary studies—for example, those of Johnson et al. (2008) and Swiss et al. (1998)—may face analytical questions arising from sampling strategies, interviewer training, survey question wording, response bias and other factors.

The dearth of systematically sampled data (i.e., survey data) represents a significant stumbling block for researchers attempting to analyze sexual violence quantitatively. Convenience data, because they are not sampled in a systematic way, have no associated uncertainty measure; thus, drawing conclusions about populations larger than the sample is not a particularly meaningful exercise.

Researchers who have access only to convenience data can and should consider the uncertainties associated with these data. In doing so, it is important to identify what conditions would be necessary to drawing a responsible conclusion.

In general, before drawing conclusions on the basis of any dataset, the researcher should ask:

- Was the sample drawn in a way that might have over- or under-represented some types of respondents?
- Might aspects of the data-collection process (survey enumeration, testimony, record-keeping, etc.) have encouraged respondents to give incomplete or false answers?
- Did the process of collecting data encourage or discourage certain types of cases?
- Given the potential biases, what population can this data speak about, describe or generalize to?
- In addition to the claim or hypothesis that researchers are studying, do the data support alternative explanations as well?

Without drawing conclusions about relative prevalence of sexual violence in the population, several studies have explored what can be learned from reported cases alone. For example, if a key question is “were there more than X episodes of sexual violence?” raw count data may be sufficient to answer the question. This is so because questions of minima can be answered

with raw data alone in some cases. Considering the example question above, if raw data include at least X verifiable cases, then the researcher can confidently answer in the affirmative. On the other hand, if the data do not include at least X cases, then the researcher cannot answer confidently, because the number of cases outside the dataset remains unknown.

Colombian researchers benefit from clear, well-formed ideas and informed intuitions about sexual violence in specific places and periods, as well as about sexual violence perpetrated by certain armed actors. However, a clear qualitative account of a specific collection of cases is quite different from an inference to the population. In order to craft accurate estimates of patterns of sexual violence within the population, it is vital that researchers understand the process by which their data collections were created, the underlying assumptions of their hypotheses (e.g., that the sample is representative of the population), and the potential limitations and biases of the data. Without a clear understanding of the link between data production and data analysis, all quantitative analyses will be flawed in important ways.

Colombian sexual violence data: An assessment

Having provided a general discussion of issues related to quantitative research on sexual violence, in this chapter we describe the current situation with respect to sexual violence data in Colombia, and briefly evaluate some of the data sources available. We did not receive access to all existing data sources, nor did we receive access to all the data sources described below. Some we learned about through key interviews; others were received via official writs of information¹ or through personal contacts with colleagues at NGOs. As we describe each type of data source, we highlight its strengths, its structural biases and its analytical limitations. We conclude that this careful consideration of strengths and limitations is a required step before using any data for analysis and interpretation, and recommend continued analysis of the origins, biases, strengths and limitations of Colombian data sources.

Colombian data collections are quite heterogeneous, with respect to geographic coverage, period, and informational content. Colombia's strong network of civil society organizations has documented many cases of sexual violence by armed groups, against both combatants and non-combatants, in many areas of the country. However, we note that this information is frequently coded from victim testimonies, the collection of which is distributed unevenly across Colombian departments and municipalities, and is usually intended to serve criminal justice or legal purposes, rather than analytical purposes. Moreover, conflict-related

sexual violence has only been documented since the mid-1980's. Official (i.e., state) data on sexual violence and related phenomena cover a still shorter period of time, typically beginning in the early 2000's or even later.

As we describe below, there exist many data sources about sexual violence that are rarely analyzed. Yet more sources does not necessarily imply increased inferential power. In this chapter, we argue that researchers, analysts and advocates should be aware that none of the existing data sources are "representative" of all cases.

The *uses* of data on sexual violence in Colombia, like the data themselves, vary considerably. Typically, however, reports on sexual violence cite statistics on domestic violence, not conflict-related cases; these are often derived from two sources, the INML and Profamilia's ENDS survey results, without adequate analysis of their coverage and limitations. As we describe below, there exist many other data sources that have not yet been adequately utilized. Yet a larger collection does not imply increased inferential power; below, we argue that researchers, analysts and advocates should *not* consider these data on reported cases as "representative" of all cases. There is no necessary relationship between reported cases and all cases, and consequently existing data cannot be used as the basis for claims about more general patterns and magnitudes of sexual violence.

¹ For more information on these official writs of information, see Appendix A below.

The social production of sexual violence data

Even the most concrete numerical data are, inevitably, socially produced. Colombian victims and witnesses of sexual violence, like those in any conflict or post-conflict situation, face varying incentives and disincentives to report sexual violence, either by direct denunciation or by making themselves visible to organizations that capture information passively. In addition, organizational factors entirely unrelated to patterns of sexual violence may drive reporting. Research mandates, definitional issues, staffing, access and trust within communities, and a multitude of other factors affect data collection in Colombia. Social relationships, cultural issues, group norms, and other elements strongly determine the eventual content of any database.

For example, legal definitions and interpretations shape many data collection efforts in Colombia, despite the fact that these concepts may not be comprehensible or relevant in the empirical realities of the situation. For example, many assessments of wartime sexual violence are oriented around the definitions contained in the Rome Statute of the International Criminal Court (United Nations 1998). Groups that collect information often have specifically legal purposes and goals, and wish to present legal arguments before national or international justice or human rights bodies. However, the resulting data collections do not always reflect all the types of conduct that advocates consider to be sexual violence. In the context of the internal armed conflict, Humanas-Colombia documented the following violations: rape and intent of rape, sexual mutilation, forced nudity, sexual slavery, imposition of codes of conduct, sexual harassment, forced abortion, forced contraception, child prostitution, forced marriage, groping, and control of affective lives.

Focus group discussions and narrative interviews, activities inherently tied to social networks, have been used with great success to obtain qualitative information on sexual violence in Colombia.² In particular, women's rights organizations have developed networks in many regions and, owing to these networks of trust, have acquired extraordinarily deep knowledge of local situations. As a result of these successes, direct testimonies, focus group data and other qualitative investigations have been used as a main source of information, sometimes without careful attention to the origins of the data. These data are sufficient for local, qualitative reports, but they cannot be used for generalization to broader populations such as inter-regional or national comparisons. This fact must be understood if the data are to serve as a basis for meaningful interpretation.

Another key element of the social production of data is definitional. Ideas about what is sexual violence, and which sexual violence is related to conflict, are culturally specific and may vary considerably even within a conflict zone. Colombian women's rights groups struggle particularly with disentangling "conflict-related" sexual violence, because of the long duration and variability of the conflict, which at this point has lasted nearly fifty years. People have lived with the conflict, including its phases of relative peace, and alongside combatants, for decades. In a country where gender inequalities and stereotypes are culturally enshrined, the continuing presence of armed actors has been seen as a constant reinforcement of ideals of militarized masculinity and sexuality (see, e.g., Inter-American Commission on Human Rights 2006: para. 43-44).

² Most reports authored by Colombian women's rights organizations are based on testimonies collected during field interviews. In addition, focus groups and workshops have been used to reach shared conceptualizations of the situation of women (see, e.g., Mesa de Trabajo Mujer y Conflicto Armado 2003).

Given the ongoing presence of armed actors in many regions of Colombia, it may be challenging to separate “conflict-related” from “normal” sexual violence. A soldier who commits an acquaintance rape during a date on the soldier’s time off: Is it conflict-related? Many would answer yes, in keeping with literatures on militarized masculinity (see explanation in Gill 1997). The presence of the soldier in a region is linked to the conflict; his

profession gives him power, even in private settings; and his military training normalizes violent sexuality (e.g. Burke 2004). But is this the only valid interpretation? Does the conflict analysis simply validate the invisibility of quotidian sexual violence? Our research team did not attempt to reach conclusions regarding these questions. We note simply that socially produced knowledge is vulnerable to conflicting social interpretations.

Profamilia surveys

Profamilia is a private non-profit organization that provides sexual and reproductive health services and education to Colombians throughout the country.³ Profamilia operates 33 centers located in 29 cities. It also brings specialized services, products, education and information in sexual and reproductive health to poor and marginalized populations of Colombia via mobile health brigades.

Profamilia’s survey data is one of the two most widely cited sources in the country (the other is the INML, considered below). The Demographic and Health Survey (DHS, known in Colombia as the *Encuesta Nacional de Demografía y Salud* or ENDS), implemented by Profamilia’s Evaluation and Research Unit, provides a wealth of knowledge gathered through a structured sample and questionnaire.⁴⁻⁵ These data cannot be used to understand “conflict-related sexual violence,” because they do not address conflict-related crimes specifically. However, Profamilia’s survey data are widely cited to give a sense of the magnitude of sexual violence more generally. References to Profamilia or INML statistics almost always preface studies focusing on sexual violence in the Colombian conflict (see, e.g., Mesa de Trabajo Mujer y Conflicto Armado et al. 2008).

Profamilia also conducts a smaller survey on Sexual and Reproductive Rights of Vulnerable Populations

(SSRR). These two surveys represent the best attempts at baseline measurement of sexual violence in Colombia, particularly domestic sexual violence. Still, in our opinion, baseline sexual violence in Colombia must remain an open question. This is true for a multitude of reasons, many of which were considered above in Chapter 3. Disclosure bias is a primary concern, but other forms of response bias (e.g., those associated with definitional issues) and selection bias are also key issues. These difficulties are not unique to Colombia; as we discussed above, issues of bias in survey data on sexual violence are universal.

Profamilia has administered ENDS surveys every five years since 1990. Although DHS surveys (including the ENDS in Colombia) ask a wide range of questions about reproductive and sexual health, the survey’s approach to sexual violence is limited by its tight focus on rape and its disregard for other forms of sexual violence. Until recently, ENDS asked just one question specifically related to sexual violence, namely, whether the respondent has suffered rape by a person other than a husband or partner (ENDS 2005 estimates that 6% of women suffered this type of violence). However, only women of “fertile age” are asked this question; hence, no evidence about more taboo forms of sexual violence, such as sexual violence against children or sexual violence against elders, is available. In addition,

³ See <http://www.profamilia.org.co>

⁴ Note that this analysis does not refer to Profamilia’s most recent ENDS survey (2011).

⁵ The DHS is an international effort to track and compare health outcomes in developing countries. The DHS is a comprehensive survey instrument, which is mostly developed around a framework of primary health and reproductive rights but also measures, to some extent, related factors, including sexual violence.

this boundary condition excludes male victims of sexual violence.

The “fertile age” boundary condition may strongly affect survey results. In its 2005 study, Profamilia categorized all females between 13 and 49 years old as “of fertile age,” whereas previously, this category included only women aged 15-49. This change produced an interesting finding: of the 6% of women between the aged 13-49 who reported experiencing rape (excluding forced sexual relations by husband or partner), 47% were under 15 years of age; that is, 47% of those who reported sexual violence would not have been asked about their experience of sexual violence in previous ENDS surveys.

In its planning of the ENDS survey process, Profamilia has decided against including any question explicitly addressing conflict-related violence. The question most frequently used as a proxy for conflict-related sexual violence asks whether women reporting sexual violence knew the perpetrator. Twenty-one percent of women who reported experiencing sexual violence reported that they did not know the perpetrator. However, the baseline rate of rape, including non-conflict-related stranger rape, is unknown. Consequently the proportion of stranger rapes actually related to the conflict remains unknown. Urrego (2007) reports that departments reporting the highest rates of sexual violence in the ENDS 2005 survey are those in which conflict intensified in that year. Again, however, this association could arise for a number of reasons.

The SSRR is an element of a broader project, Profamilia’s National Reproductive and Sexual Health Services Project for Under-resourced and Displaced Populations (*Proyecto Nacional de Servicios de Salud Sexual y Reproductiva en Población de Bajos Recursos y Población Desplazada*, Profamilia 2005). The main goal of the larger project is to evaluate knowledge of contraception, STDs, prevention of cervical and breast cancer, general health services for women, and domestic violence, as well as to estimate the use of contraception and women’s health services, in areas covered by the project. SSRR data served as

a component of the evaluation process for the larger project, and was designed primarily to evaluate changes in knowledge and use of health services in areas served by the project. However, in this context a limited number of questions about sexual violence were asked.

An important difference between the SSRR and the ENDS is that the former addresses conflict-related violence somewhat more directly than the latter; responses are disaggregated by reason for displacement (conflict displacement versus non-conflict-related displacement). In 2005, the SSRR found that 8.2% of displaced women have been raped by someone other than their husbands, higher than the rate reported in ENDS results. The most common type of violence reported by the women in this population is intimidation and physical violence by armed actors. However, we caution again that this association could arise for a number of reasons, particularly the generalized insecurity associated with displacement, whether that displacement is related to conflict or not. Furthermore, both figures (8.2% of displaced women versus 6% of non-displaced women) are estimates from a survey, and as such, are estimates within margins of error. It is unlikely that the small difference between these values is outside the associated errors: simply put, the two values are not distinguishable in a statistical sense. Therefore, we are skeptical that a conclusion should be drawn about the difference.

Profamilia’s surveys are likely to be the best approximation of “baseline” sexual violence available in Colombia. However, as noted above, the general limitations of surveys and the specific construction of the ENDS survey both suggest that baseline sexual violence may significantly exceed the proportion reported, even when conflict-related cases are not considered. More importantly, within Profamilia’s surveys, it is impossible to determine with confidence whether a given report of sexual violence is related to the conflict or not. However, Profamilia data from individual locations may be extremely useful as a complement to more specific, local, qualitative investigations.⁶

⁶ The authors thank Profamilia for sharing their raw data.

Data generated for legal or criminal justice purposes

Nearly all data on sexual violence in Colombia, outside of the Profamilia surveys, is collected for use in the justice system. These sources include the INML, the National Police (*Policía Nacional*, PN), the Attorney General's office (*Fiscalía General de la Nación*, FGN), and many NGOs. While some of these sources are also employed in other investigations, the legal framework guides a significant amount of data collection in Colombia.

The INML provides investigative support and forensic evidence to the Colombian justice sector. Within this mandate, it offers forensic and medical-legal services to the Colombian population and engages in scientific research, educational outreach and expert testimony.⁷ INML offices provide gynecological and psychological exams (similar to the “rape kit” provided in the United States) to victims of sexual violence who are interested in prosecuting the perpetrator(s) for the crime.

The result of the gynecological exam is called the “expert decision” (in Spanish *dictamen pericial*). Given this specific function, oftentimes the only incentive for a victim of sexual violence to go to INML is to undergo a gynecological examination so the resulting medical-legal report can serve as legally admissible evidence in case of an eventual prosecution. While not required, the medical-legal report can help access other state services such as legal abortion, care and protection.⁸

In addition to physical tests, each examination includes an interview, referred to as an *anamnesis*, which collects data on the patient and a description of the events surrounding the crime. In interviews, INML staff reported that anamneses contain a wealth of demographic data about the victim, as well as basic

information about when, where and what happened. This qualitative data could potentially be coded to better understand the population reporting to INML and the nature and details of the acts.

The criminal justice purpose of INML investigations raises serious issues of selection bias in the resulting data. As noted above, INML provides exams and collects data *only* from victims who physically appear at an INML office to report a sexual crime. According to at least two experts, an examination may *only* be given if the victim holds an official complaint report filed with the police of the technical investigative body of the prosecutor's office (CTI) or the National Police (INML interviews 2010).

Additionally, a victim typically needs to report to the INML almost immediately after an episode of sexual violence. Because the point of the exam is to find physical (or, more rarely, psychological) evidence of sexual abuse, there is a disincentive to report through this channel if no physical evidence exists or if physical evidence is no longer present. INML clearly states that it can only determine sexual violence if the crime has left physical evidence and it is still present on the victim's body when they present to INML clinicians. According to interviews with MSF and INML staff members, evidence from sexual abuse is usually present for 72 hours after the incident. However, some sexual violence does not leave physical evidence (Masatugó 2008: 58-59). The likely quantitative implication is that victims who do not consider prosecuting, or who do not undergo an examination immediately after the assault, are not included in the INML's figures. This is not a critique of the data themselves, but rather a point of caution in interpreting those data.

⁷ See <http://www.medicinalegal.gov.co>.

⁸ Considerable confusion exists regarding whether a gynecological exam is required for a victim of sexual violence that wants to get a legal abortion. Governmental and non-governmental organizations frequently provide contradictory advice to victims on this topic. Some encourage the exam, even though the victim has no intention to prosecute. As far as we were able to learn, only a police report is required to be eligible for a legal abortion. Furthermore, as noted further below, if a victim has no intention to prosecute, INML will not carry out the gynecological exam.

INML data also suffer from selection bias regarding populations targeted for sexual violence. In particular, aside from those who intend to prosecute following an incident of sexual violence, just one significant population regularly receives INML examinations: children who are in the custody of the Colombian Family Welfare Institute (the *Instituto Colombiano de Bienestar Familiar* or ICBF). The ICBF employs INML examinations because the ICBF does not have its own physicians. INML staff reported in interviews that, until recently, INML statistics included examinations performed on all children in ICBF custody. This represents a major source of selection bias in the wider sample, and a serious barrier to analyses that attempt to compare these data over time.

Structural biases that overrepresent younger victims in INML data result not only from institutional relationships with the ICBF, but from the differing cultural dynamics surrounding child and adult sexual violence. Many adult women believe that they are responsible for their own abuse, or that they will suffer reprisals for admitting abuse against them. Consequently, women may bring their children who have been abused before the INML, but not report abuse they themselves have suffered. This dynamic may be reinforced by economic dependence on spouses and husbands, fear of reprisals, and fear of losing custody of the child.

Finally, a key problem with INML data completeness concerns the fact that gynecological examinations are restricted to live victims. INML is also tasked with investigating sexual violence in corpses; however, an INML staff member reported that police personnel, who bring bodies to INML for examination, are careless about contamination or evidence loss related to sexual violence (Interview, INML Medellín). Otero, Quintero and Bolívar (2009) study the barriers to reporting sexual violence in dead women, particularly women killed in massacres. They find that sexual violence is not generally looked for, and frequently not recorded if found.

Geographically, INML reports institutional presence across 65% of Colombia's area; however, most offices are

located in urban centers. Its coverage as a proportion of the population is unclear. It also receives information from other sources, including doctors who perform forensic services in areas that INML does not have a direct presence. In rural areas, INML gynecological and forensic services are often provided by medical students completing their obligatory rural internship, or by clinics in rural areas. INML collects its data about sexual violence in a database called the System for Epidemiological Observation of Externally Caused Wounds (*Sistema de Vigilancia Epidemiológico de Lesiones de Causa Externa* or SIVELCE). Otero, Quintero and Bolívar (2009) establish that SIVELCE data quality varies widely, and specifically that professional staff at INML produce higher-quality (i.e., more complete) data than do medical students or under-resourced rural health stations.

Many organizations use INML data as a primary source in their estimations of the magnitude and pattern of sexual violence in Colombia. A staff member of the Women's Secretariat, an office of Medellín's local government, reported in an interview that "the best data [*mejores datos*] are those of *Medicina Legal*" (Medellín Women's Secretariat interview, 2010). A staff member of the Ministry of Public Health called INML's data on sexual violence "the official source [*fuentes oficiales*]" (INML interview, 2010). Although authors typically acknowledge that INML data suffer from under-registration, they are still cited frequently as the basis of quantitative claims.

However, the statistical quality of information gleaned from INML data is questionable. What do the statistics from INML tell us about the population of sexual assault victims in Colombia? What is the meaning of comparisons over time, given changing coverage rates and other selection effects? We note in particular a multitude of factors, not related to sexual violence or conflict, that may strongly affect these data. Changing educational programs, transportation, staff available to treat survivors at the hospital, incentives available to victims, or population movements could easily cause the observed differences. Consequently (and as with nearly any convenience dataset), neither trend nor

pattern analysis using INML data would be reliable. In its own reports, INML observes that reported sexual violence has increased from 34 cases per 100,000 to 71 cases per 100,000, labeling this a “significant increase.” Yet INML also recognizes that this difference can be attributed to increased access to services or to sexual and human rights education. In other words, this change in the “pattern” over time is not a trend in sexual violence, but in the factors that influence access to health care, as well as INML’s recording practices. Unfortunately, not all users of these data recognize this issue. For example, a Humanas report on sexual violence in conflict claimed that sexual violence increased by 69.5% between 1997 and 2007. Virtually every report on sexual violence in Colombia published in recent memory has replicated this error.

In 2006, the United Nations Country Team for Colombia, in its Common Country Assessment, stated that there had been a marked increase in domestic and sexual violence against women, citing INML data. However, the data in question showed that reported sexual violence had increased by 23% over 2003, and as we have noted previously, *reported* sexual violence is unlikely to be representative of all sexual violence occurring in the population. Relying on the same data, the Country Team also noted increased reports of sexual violence by guerrilla, paramilitary and army groups—but again, it is impossible to know whether a change in reported sexual violence represents a change in all sexual violence.

Similarly, some authors have used INML data to support statistical claims about the relative risk of sexual violence for young people. For example, Devenir (2003), using INML data, claims that “girls and boys have a higher risk of suffering a sexual crime, given that 71% of victims evaluated were younger than 15 years old,” an inference that the data do not support. The fact that a majority of evaluated victims are under 15 might signify that sexual victimization of children is more likely to be reported than is sexual victimization of adults.

Detecting cases of sexual violence that are specifically related to conflict within INML data is quite difficult. If we consider as “conflict-related” all cases that name armed actors as perpetrator(s), we identify only a small proportion of conflict-related cases. Women’s groups typically follow this strategy as they report on conflict-related sexual violence.

INML is one of very few organizations that collect data on armed-group perpetrators. Until 2008, INML data included a perpetrator category called “paramilitaries.” As of 2009, however, it dropped this category; the government of Álvaro Uribe officially declared that paramilitary organizations no longer existed in Colombia. At this point, a category called “bandas criminales” is thought to subsume most paramilitary violence, although it is not clear that it maps exactly to the former “paramilitaries” category. Some categories disappear in some years and reappear in others, and given the politicization of perpetrator categories, it is difficult to determine whether this is due to a lack of reported cases in such categories, or to temporary elimination of the category for other reasons.

The practice of examining the perpetrator category variable as the only proxy for conflict-related violence has at least one other significant problem. This key variable suffers from significant missing data (up to 9%) and, in cases where data are not entirely missing, frequently records “unknown” as the perpetrator (43% in 2003). This implies that the analysis of perpetrators is really an analysis of people who know the affiliation of their perpetrators or are motivated to name them.

Table 4.1 shows perpetrator variable categories as reported in INML’s yearly report, *FORENSIS*, for the years 1999 through 2009—data that display all the issues of perpetrator categorization, data missingness and selection bias described above. On the basis of this information, it is essentially impossible to compare perpetration by organizational affiliation over time.

Table 4.1. Perpetrator Categories Used in Forensis, by Year

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Police									X	X	X
Military Foreces									X	X	X
Prison Police - INPEC									X	X	
Members of Intelligence Services											X
Drug Traffickers									X	X	X
Guerrilla FARC									X	X	X
Guerrilla ELN									X	X	
Other Guerrillas									X	X	X
Paramilitaries										X	
Gangs									X	X	X
Private Security Groups									X	X	X
Criminal Bands											X
Common Crime									X	X	X
Relative	X	X	X	X	X						
Father	X	X	X	X	X	X	X	X	X	X	X
Brother					X	X	X		X	X	X
Son							X		X	X	X
Mother							X	X	X	X	X
Stepmother							X		X	X	X
Uncle						X		X	X	X	X
Grandfather						X	X	X	X	X	X
Stepfather	X	X	X	X	X	X	X		X	X	X
Spouse	X	X	X	X	X				X		
Boyfriend					X			X	X	X	X
Friend					X	X		X	X	X	X
Workmate					X				X	X	X
Homeowner						X			X	X	X
Tenant						X			X	X	X
Neighbor								X	X	X	X
Teacher									X	X	X
Other known	X	X	X	X	X	X	X	X	X	X	X

Of course, INML is not the only dataset collected for legal or criminal-justice purposes. Data from the National Police (Policía Nacional, PN) summarize reports from victims who may want to prosecute; the Attorney General's office collects information about ongoing sexual violence cases. However, if a victim does not intend to prosecute (the majority do not, cf. Humanas 2009), or does not require documentation to obtain a service such as a legal

abortion, she or he is unlikely to be included in data from the criminal justice sector. Incentives and disincentives for reporting change over time and space, in ways that may enormously distort the true level of sexual violence. Consequently, it is impossible to use these data collections to make inferences about the patterns or magnitude of sexual violence, much less conflict-related sexual violence, in the entire population.

Data from the health sector

The health sector offers more potentially useful indirect information about sexual violence than any other data source, due to the array of health consequences a person is exposed to when sexually abused. For example, if the abuse consisted of intercourse and the victim is a woman, the act may result in unwanted pregnancy. Studies have estimated that approximately 1% of acts of unprotected sex result in pregnancy (Swiss and Giller 1993). Both female and male victims are exposed to sexually transmitted diseases, physical injuries and psychological trauma. Many of these consequences may result in a visit to a health service provider.

Studies have found that patients visit the doctor not only in the immediate aftermath of sexual abuse, but for associated issues throughout their lifetimes.⁹ One study found significant association between a history of sexual abuse and a lifetime diagnosis of functional gastrointestinal disorders, nonspecific chronic pain, psychogenic seizures and chronic pelvic pain (Paras et al. 2009).

In Colombia, hospitals, clinics, doctors and health service providers are legally obligated to report several

key medical events. There are at least three different reporting requirements for doctors, in addition to the medical records and clinical histories they must all document. These include administrative forms, called Individual Registries of Health Service Provision (*Registro Individual de Prestación de Servicios*, RIPS), which record minimal data on every health service provided. The form includes a field for recording signs of violence. RIPS forms are centralized by the Social Protection Ministry. A second reporting scheme is the National Public Health Observation System (*Sistema Nacional de Vigilancia en Salud Pública*, or SIVIGILA), a project of the National Institute of Public Health. This dataset includes weekly reports from hospitals, clinics and doctors throughout the country on all public health events monitored nationally¹⁰. A third data capture scheme, only operable in some Colombian regions, collects information for epidemiological study.

SIVIGILA registers events that trigger mandatory notification, and could be related to sexual violence, including some sexually transmitted diseases (HIV, syphilis and Hepatitis B) and child and maternal mortality. Sexual violence is not mandatory notification

⁹ In addition, representatives from the women's organization *Iniciativas de Mujeres Colombianas por la Paz* (IMP) noted that victims of rape may go to the doctor, but state reasons other than sexual violence for their visit.

¹⁰ SIVIGILA data are available to researchers at the municipal level, but data disaggregated for the Military Hospital are not released. One interviewee suggested that data restrictions are due to concerns regarding STDs reported at military hospitals. One informant suggested that the military has higher rates of STDs than is publicly known, and that consequently releasing such information could endanger national security. We believe that this lack of information regarding STDs in the military population represents a significant public health risk. Coupled with reports that state military personnel have committed sexual violence while stationed away from their home bases, and that military personnel frequently employ sex workers, the lack of transparency about the sexual and reproductive health of these personnel is worrying. We believe this requires further investigation.

event at this time. In addition, it is important to remember that, although reporting is mandatory throughout Colombia, compliance with the mandate varies considerably by space. One interviewee suggested that areas with the poorest reporting capacity were those most affected by conflict. If this is correct—and certainly conflict creates difficult conditions for both health workers and health reporting—then these data are even less reliable as indicators of varying violence over time and space.

The Ministry of Social Protection—not to be confused with the Institute of Public Health—has since 1998 required physicians to report on the health services they provide, and collect basic information about the person being treated. RIPS data are collated and sent to the municipal and departmental health secretariats and then to the Ministry of Social Protection. Like SIVIGILA data, however, RIPS reporting varies considerably (and unpredictably) over space and time. Even if these data contained clear cases of conflict-related sexual violence, their incompleteness makes them a poor basis for estimation.

Since 1999, the district of Bogotá has operated its own “information system to monitor epidemiology and domestic violence,” known as SIVIM (*Vigilancia Epidemiológica de la Violencia Intrafamiliar, Maltrato Infantil y Violencia Sexual*). SIVIM’s reporting structure is similar to the SIVIGILA reporting structure, and requires reporting of certain triggering events. The Health Secretariat of Bogotá has made a special effort to ensure that informants to the system use a controlled vocabulary as they report sexual violence, so that cases are not excluded based on lack of knowledge about definitions or inclusion rules. Although these data are extremely detailed in some respects, they are difficult to use for the purpose of tracking conflict-related sexual violence. Because the goal of the system is health monitoring rather than prosecution, no information on perpetrators of sexual violence is collected, and the data include no indicators to identify conflict-related sexual violence. In addition, as with any monitoring system, considerable data quality issues within SIVIM have been identified, particularly related to the identities of

victims, but also including other key variables such as victim ages and locations of violence. Similar initiatives have been deployed in other places (e.g., Cali, Medellín and Sincelejo), but the information collected is useful only locally; the categories employed are not included in national-level databases.

Each of the health data collection systems in Colombia is designed with public health and intervention policies in mind. Thus, the data collected may be extraordinarily detailed with respect to specific health outcomes (sexually transmitted infections, for example, or the circumstances surrounding deaths in childbirth), but it may be uninformative regarding the context of the event.

Moreover, in every health data collection system considered above, the ultimate responsibility for reporting lies with individual physicians. Unfortunately for the quality of these data, doctors are busy. Reporting mandates are often seen as “just more paperwork,” and several interviewees reported that health monitoring paperwork may be inconsistently completed. The consequences of failures to report are minimal and rarely enforced. In addition, while physicians are required to report even *suspected* violence, it is likely that non-obvious cases of sexual violence are reported less frequently than are clear-cut cases; a physicians’ willingness and ability question patients regarding such private matters varies significantly. This is especially true because questioning, and reporting, may result in the physician’s involvement in a legal process—an outcome most health practitioners wish to avoid.

From the victim’s perspective, although there may be many reasons to seek medical attention after sexual violence, many individuals choose not to do so. Survivors of sexual violence may not be aware of the physical or psychological consequences of sexual violence, they may know but think they do not need help, or they may fear becoming involved in a legal process. In some regions, such as Chocó, interviewees suggested that women may feel safer reporting to an organization such as MSF than a government health service provider. These populations are unlikely to be adequately represented in state monitoring data.

Other sources

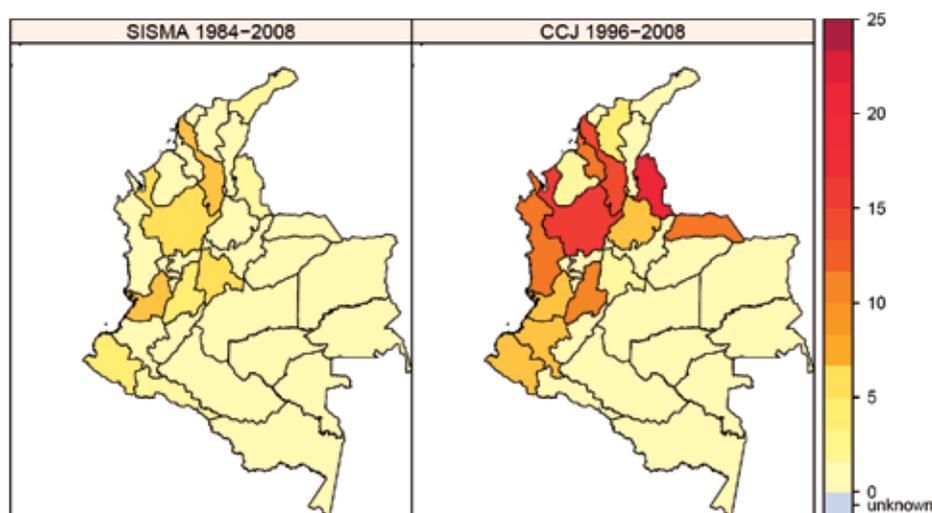
Several other types of organizations also provide services to victims of sexual violence. For example, most Colombian municipalities have a *Comisaría de Familia*, a family ombudsman or investigations office. While the records kept by these offices are frequently minimal, they serve as an important source of knowledge about sexual violence because they see large numbers of cases. Schools, like health service providers, are also required by law to report cases of sexual violence they encounter. In interviews, educators cited several reasons (trust, fear of retaliation, lack of awareness of the reporting procedures) that a teacher or dean might not report; nevertheless, like the *Comisaría*, schools can provide key contextual information on local dynamics of sexual violence.

The most important data collections specific to *conflict-related* sexual violence are those of NGOs and advocacy organizations. The maps below describe data shared with us by Sisma-Mujer and the Colombian Commission of Jurists (*Comisión Colombiana de Juristas*, CCJ).

The differences in coverage periods, and coverage rates, between the two organizations, are significant. Sisma-Mujer, which records only the cases of victims it aids directly, covers twice as many years as the CCJ. However, CCJ data, which also include press reports and cases reported in CINEP's *Noche y Niebla* magazine, contain considerably more cases. Unsurprisingly, the two data collections imply very different assessments of both magnitude and patterns of sexual violence.

A key aspect of NGO data on sexual violence is its extreme scarcity. In Figure 4.1, the northeastern department of Norte de Santander shows the highest density of reported sexual violence, with just 20 cases over a 12-year period. Why are reports so limited? This dynamic may be due to the reporting capacity of the resource-limited NGOs—or, these data may reflect a truly minimal level of conflict-related sexual violence. We note only that, in the absence of systematically sampled data, reports of “widespread” or “systematic” conflict-related sexual violence in Colombia are not

Figure 4.1. NGO reports of conflict-related sexual violence



supported by the existing data, either from NGOs or from other sources.

In late 2010, the NGO Casa de la Mujer, in partnership with Oxfam Colombia, released a report titled “Violencia Sexual en Contra de las Mujeres en el Contexto del Conflicto Armado Colombiano” (*Sexual Violence Against Women in the Context of the Colombian Armed Conflict*), which presented results from a major new survey of over 2,500 Colombian women. The Casa de la Mujer/Oxfam sample is intended to represent women in conflict-affected municipalities specifically. However, our research team did not have access to these data for comparison; nor is it clear that the Casa de la Mujer results, while very valuable, provide an accurate reflection of the population of interest (all women aged 15–44 who lived in conflict areas between 2001 and 2009).

There are two reasons to question the representativeness of this sample. First, it is unclear to what extent the survey administration process reflected best practices in research on sexual violence (see Chapter 3 above). For example, details about survey

enumeration and random sampling strategies were not included in the summary of the report published as of this writing. Second, and more importantly, we note that the survey drew its sample from only 15 of the 407 municipalities in Colombia identified as “conflict-affected.” The researchers do not provide a description of this first stage of sampling; nor do they provide details of the strategy used to sample individual women within these municipalities. In consequence, it is difficult or impossible to judge whether the sample adequately represents the population of interest. Representativity is a key question; unless the representativeness of the sample can be verified, it is premature to make claims about population-level patterns of sexual violence.

Finally, we note that no data were collected from women in non-conflict-affected municipalities. Thus, like most other collections of data on sexual violence in Colombia, this data collection cannot demonstrate conclusively a relationship between conflict and sexual violence. Nor does it provide comparisons between patterns of conflict-related and non-conflict-related sexual violence.

Comparing Colombian data sources

Table 4.2 summarizes some key aspects of the datasets to which we had access during this study. As is clear in the data, inconsistency between datasets is a major characteristic of sexual violence data in Colombia. Both incident counts and units of analysis vary considerably across datasets, rendering the data almost entirely incomparable. For example, some data are recorded such that each individual act of sexual violence is represented as a single observation; in some, the unit of observation is instead the individual media report (each of which could contain multiple acts of violence); still others code by “event,” a unit of observation that may include more than one act of violence and may overlap with media stories. No source tells a consistent story about sexual violence in Colombia, because each source captures a specific (and probably quite small) fraction of all cases of abuse.

We note several endemic problems with these data beyond their incomparability. Datasets that claim national coverage often do not collect data in all departments. The periods covered overlap very little. Their relative sizes vary wildly. Not a single category of crime is used consistently across all datasets; thus, mapping one to another is difficult and in some cases impossible. Age groups of victims captured in the data are sometimes comprehensive, but frequently represent only a subset of age groups, or qualitative categories (e.g., “elderly,” “young”). Available data capture different subsets of sexual violence not only by age of victim, but also by reference population (victims of domestic violence, explicitly conflict-related sexual violence, victims with medical complications, and so on).

Table 4.2. Summary of Data Sources Available

Dataset	Time	Space	# of Depts.	Age	Age Categories	Perpetrator	Unit of Analysis	# Records	Reference Pop.
PN	2003-2010	National	32/32	None	Child, Adult	No	Crime	125,888	General Population
MPS	2005-2008	National	32/32	1-112	No	No	Medical Consultation	28,248	General Population
FGN	2005-2010	Bogotá	1/32	0-81	Child girl / boy	No	Victim	13,935	General Population
Humanas	1992-2008	National	25/32	Yes	Child, Youth, Adult	Yes	Press Report/Denunciation	276	Conflict-Related
PGN	2005-2010	National	25/32	None	No	Yes	Disciplinary Process	162	Accused Public Employees
CCJ	1996-2008	National	18/32	None	Child, Youth, Adult	Yes	Victim	141	Socio-Political Violence
Sisma	1984-2008	National	19/32	10-44	No	Yes	Victim	52	Conflict-Related

In addition to the variation shown in Table 4.2, each of these datasets uses a different definition of “sexual violence.” The National Police, the Procuraduría (PGN) and the Attorney General’s office only include rape, distinguishing between categories of rape by age. For example, they include “acceso carnal abusivo” and “acceso carnal violento.”¹¹

The CCJ includes an aggregate category called “violencia sexual” that encompasses cases of forced pregnancy and sexual slavery. Sisma data include five categories: rape, sexual slavery, forced prostitution, forced pregnancy and a general category, “acts of sexual violence.” Humanas employs a typology that distinguishes 15 separate forms of violence, including forced nudity, forced contraception, attempted rape, forced prostitution. Health data from the Ministry of Social Protection do not include a category to code the type of sexual violence. Data from the Oxfam/Mesa de la Mujer survey (2010) are disaggregated by type of sexual violence, but these data were unavailable for direct review.

Using any of these datasets to understand patterns of sexual violence will be misleading. For example, in

the maps below, we compare the two largest national datasets on sexual violence: RIPS data from the Ministry of Social Protection (MPS) (left), and denunciations to the National Police (right).

First, in Figure 4.2, we compare the distribution of reports by department for the four years the two datasets have in common, 2005-2008.

The MPS records many cases in Antioquia, where the police receive few reports of sexual violence. Of the three most populated departments—Cundinamarca (Bogotá), Antioquia (Medellín), and Valle del Cauca (Cali)—the MPS records many cases in all three, whereas the PN only appears to have real reporting density in Cundinamarca. On the assumption that reporting is a simple function of population, we calculated population rates (reported cases of sexual violence per 100,000 inhabitants of the department) using data from the 2005 census. These rates are shown by department in Figure 4.3.

Comparing 2005-2008 reports from the MPS and the PN with the results of Profamilia’s ENDS survey (2008) produces notable divergences. Figure 4.4 displays the

¹¹ In Colombia’s criminal code, the designation “abusivo” is used when the victim is a child.

Figure 4.2. Counts of Sexual Violence Reports using Health Data and Police Data, 2005-2008

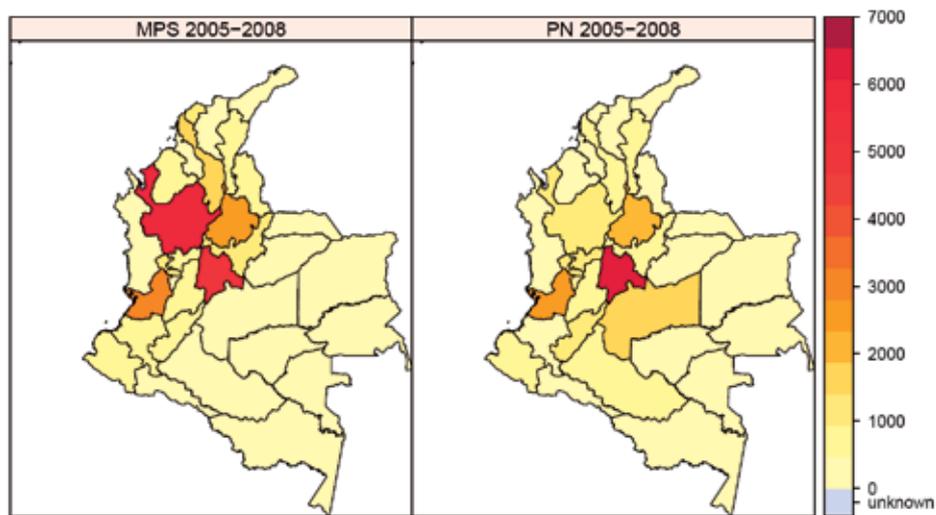
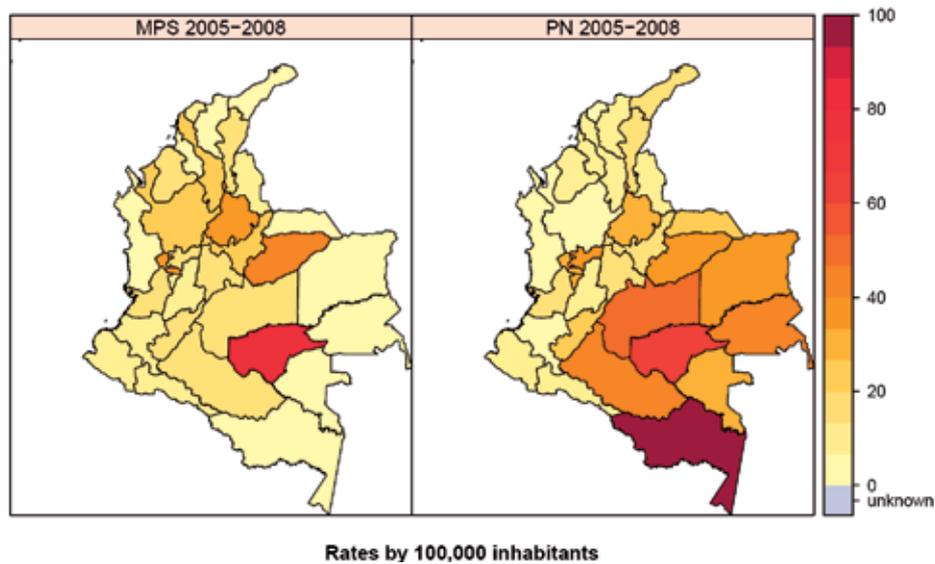


Figure 4.3. Population Rates of Sexual Violence using Health Data and Police Data, 2005-2008



ENDS results for comparison.¹² Recall that the ENDS survey asks women only if they have *ever* been raped by someone other than their spouse or partner. MPS and PN data, on the other hand, record incidents by specific year of occurrence. The first map (on the left)

plots the number of cases learned about through the survey (not the total number estimated using sample weights). While the reports are also concentrated in the most populated departments, Cundinamarca, Antioquia and Valle, they show many cases throughout

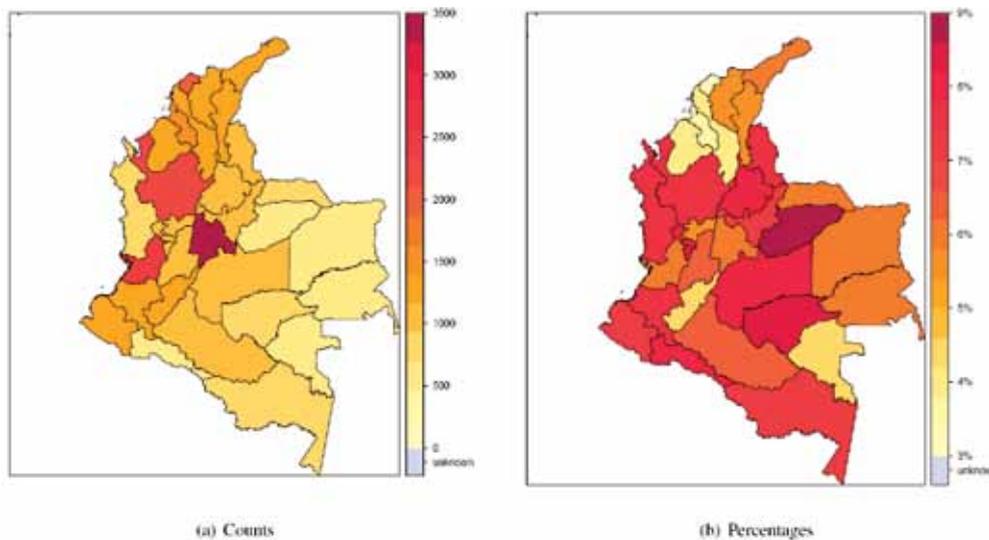
¹² These data were taken from ENDS findings published online at <http://www.profamilia.org.co/encuestas/02consulta/13violencia/04violacion.htm>

the country, an observation that MPS and PN data do not reflect. The second map (on the right) shows the percent of women in each department who report having been raped (by someone different from their husbands or partners).

ENDS data show large numbers of women throughout the country who have suffered sexual violence, as shown in Figure 4.4; the departments with the highest percentages are Casanare, Guaviare, Risaralda and Quindio. Interestingly, the latter two do not appear at all in the 2005-2008 MPS and PN data.

Clearly, each dataset on sexual violence in Colombia tells a different story; together, they leave us with far more questions than answers about the patterns and magnitude of sexual violence in Colombia. Given that Casanare and Guaviare are departments with notoriously strong armed group presence, we might ask: how does conflict relate to the high rates of rape reported there? Is it, in fact, related? We can form any number of hypotheses, but without improved data we simply cannot address these questions quantitatively.

Figure 4.4. Counts and Percentages of Women Raped from Profamilia's ENDS 2005



Missing victims, missing data, missed opportunities

Because of limited and fragmented conceptions of sexual violence in Colombia, official data on the subject is largely silent on some major victim populations, including particularly males and sex workers. This is especially problematic in the case of wartime sexual violence, because such populations are strongly affected by wartime sexual violence in particular. In

addition, in several cases data that might have been directly relevant to the study of conflict-related sexual violence were discarded or disregarded, harming researchers' attempts to understand the details of the problem. In this section we consider these missed opportunities and discuss how data collection might be improved.

Missing victims: Males

Sivakumaran (2007: 255) writes:

It is generally accepted that there is an under-reporting of rape and sexual violence in general, and male rape and male sexual violence in particular...Men [] may be loath to talk about being victimized, considering this incompatible with their masculinity, particularly in societies in which men are discouraged from talking about their emotions... Although these findings relate to male sexual violence committed in time of peace, there is nothing to suggest that it does not also pertain to male sexual violence committed in time of conflict. Indeed, it may be argued that [these dynamics] would apply a fortiori [still more strongly] in an armed conflict, where men tend to self-identify with masculine stereotypes more strongly.

The above statement is as true in Colombia as in any context. The groups that most frequently consider conflict-related sexual violence (usually women's rights and feminist groups) have not generally studied sexual violence against men. Profamilia's ENDS survey only asks women about rape. Yet even among *reported* cases of sexual violence, men and boys make up a significant proportion. During 2009, the International Committee of the Red Cross (ICRC) attended 82 victims of conflict-related sexual abuses, of which 45 were children, 6 were men and 31 were women. An ICRC official told us that among minor victims, boys make up as much as 40% of the victim population (Interview, Medellín, May 2009). Finally, according to Acción Social, one third of the applications for administrative reparation invoking violation against "sexual freedom or integrity" are from men (Interview, Bogotá, April 2010). This is a puzzling figure, and quite different from the types of figures shown in other data sources. While these data cannot be used as the basis for population-level inferences, the differences between these and other data sources deserves further investigation.

Missing victims: Sex workers

Several interviewees alluded to high levels of sexual violence against sex workers in Colombia, specifically in Antioquia, Urabá and Montes de María. Yet to our knowledge, no study has focused on the victimization of sex workers as a group, although sex work is frequently associated with increased risk of gender-based violence, including rape (see, e.g., Dunkle et al. 2004, Lutnick and Cohan 2009). As in many other conflicts, prostitution has been associated with the Colombian armed conflict in a number of ways. For example, Molano (2009: 12) quotes an ex-combatant who frequented sex workers for information, rather than for sex: "the paramilitary chief often sent me to the *zona* [brothel], where I was in charge of talking to the women [of the brothel]. They always know a lot and if you befriend them, they tell what they've been told. The men are lazy in bed and, to compensate, they tell things they do outside [in the war]."¹³ Some sex workers entered paramilitary camps voluntarily, but then were repeatedly raped; others simply disappeared (as in the case of the notorious massacre at El Tigre, Putumayo).¹⁴

Given that sex workers suffer sexual violence much more frequently than many other groups, and given the strong association of sex work to the Colombian conflict, collecting data from this sub-population is a potentially useful strategy for obtaining data that are less sparse than those obtained from the population as a whole. This has not, to our knowledge, occurred. Additionally, some interviewees raised the hypothesis that sexual violence against sex workers occurred more frequently in areas with military installations; again, no research has investigated this hypothesis specifically. Moreover, as noted above, available health data are insufficiently disaggregated to investigate such a hypothesis, and our requests for disaggregated data were denied.

¹³ Our translation from "El Bachiller (jefe paramilitar) me mandaba cada rato a la zona, donde me encargaban de conversar con las mujeres del oficio. Ellas siempre saben mucho y si uno se hace amiga de ellas, cuentan lo que les han contado. Los hombres son flojos en la cama y par compensar cuentan cosas que hacen fuera de ella."

¹⁴ Interview, CODHES, Bogotá, May 2010; also see CODHES 2010.

Because many cases involving sex workers occurred in rural areas, where sex workers are not organized as they are in urban contexts, no one has reported adequately on their victimization. Because sex work is taboo, families frequently do not report the disappearance of relatives who engage in transactional sex; if they do report, the victim is not reported as a sex worker. Sex workers who suffer sexual violence are in this sense doubly stigmatized.¹⁵

Missing data: Exhumations

By 2010, according to the Justice and Peace Unit of the Attorney's General Office, 3,131 bodies had been exhumed from 2,579 gravesites via Colombia's ongoing exhumation process (*El Colombiano*, 9 May 2010). Sexual violence is extremely difficult to determine from skeletal evidence; still, useful information might have been obtained from the exhumation process. For example, pubis fracture could be a sign of sexual violence. In Guatemala, indirect evidence of sexual violence was obtained from the absence of intimate clothing in female corpses.

In the department of Antioquia, forensic anthropologists found that some corpses presented bullet impact in the genitals (both in men and women), information that could indicate a crime that was sexual in nature (Interview, Equitas staff member, Bogotá, September 2008). Other indirect data potentially relevant to a finding of sexual violence include position of the bodies, the number of women in the grave versus the number of men, and so on. However, it is important also to note that all these indirect indicators could be interpreted in different ways that may or may not include sexual violence as a component of the killings; there exists no necessary relationship between these data and the nature of the crime committed.

Sexual violence is part of the information that ought to be gathered in the exhumation protocol established by

the Attorney General's Office. However, according to an official involved (a prosecutor serving in the Justice and Peace Unit of the Attorney General's Office whom we interviewed), the exhumation process as it is carried out now is primarily aimed at reclaiming corpses; the reports are centered neither on the causes of the death nor on the other injuries. Information present in the gravesite is not systematically gathered. Rather, the analysis is left to laboratory pathologists.

Missing data: Demobilized combatants

According to data provided by the High Council for Social and Economic Reintegration of Armed Persons and Groups (in Spanish, the *Alta Consejería para la Reintegración Social y Económica de Personas y Grupos Alzados en Armas*) from 2003 to 2010, 51,133 persons officially left armed groups during that period, including 5,415 women, i.e., 10.6% of the total number of demobilized combatants.

Both male and female combatants may have been victims of sexual violence, either by their peers or by enemy combatants. One interviewee, who worked with demobilized women in Ciudad Bolívar (Bogotá), recalled reports that women combatants were obliged to have sexual intercourse, or were raped (Interview, National University, Bogotá, March 15, 2010).

Ex-combatants may also have *perpetrated* sexual violence. However, no systematic research has investigated demobilized combatants' experiences with sexual violence, either during the armed conflict or after; nor has the sexual and reproductive health of ex-combatants been prioritized.

With such a population, various systematic inquiries could be carried out or could have been carried out during the demobilization process or afterwards. For example:

¹⁵ We reviewed the declared activities of the victims of the *Bloque Norte* of the United Self-Defense of Colombia (AUC) with the prosecutor in charge of the case. No one reported her activity (job) as sex work.

- Qualitative information could have been collected about living conditions within armed groups, and about social and sexual practices;
- Information about their knowledge of sexual violence practiced among the armed groups or to the civilians could also have been gathered on confidential basis;
- Sexual and reproductive pathologies among demobilized combatants could have been used to determine if they were victims of sexual abuses. It could also have served for reparation and attention purposes;
- Good information about rates of sexually transmitted diseases among demobilized combatants could help to consider potential correlations between armed group presence and increased STD rates.
- Voluntary examinations or interviews could shed light on claims about forced contraception within the FARC.

These lost opportunities may occur for many reasons. Male victims and victims whose work is socially stigmatized (e.g., sex workers or combatants) may not have reported their experiences of sexual violence. Victims who were murdered after suffering sexual violence clearly cannot report; often, evidence of sexual violence is difficult to obtain after death. Finally, some victims were also perpetrators of sexual violence. Yet each of these victim and perpetrator categories plays a key role in the dynamics of sexual violence in Colombia.

Current data cannot support numerical claims

Based on our assessment of the existing data, our key finding cannot be stated strongly enough: there currently exists *no basis* for any quantitative claim about sexual violence in Colombia at the population level. However, this is emphatically *not* to state that these data are useless. If analysts limit the scope of their hypotheses, carefully considering potential biases, quantitative data can play a role in significantly improving understandings of sexual violence in Colombia.

Yet avoiding statistical claims is not a solution. Donald Steinberg of the International Crisis Group reported in 2008 that “we need hard numbers” to support advocacy efforts. Steinberg is, in one sense, correct: the advocacy community increasingly believes that they need numerical data in order to conduct successful campaigns, whether those campaigns are designed to prevent sexual violence, end impunity, or simply raise awareness. However, Steinberg’s claim contains an incorrect, if implicit, assumption, namely that “hard numbers” are available.

Given the structural incentive to make bold claims (see, e.g., Cohen and Hoover Green 2010, on reports

of rape in Liberia) and the structural constraints on sexual violence research, these reports frequently infer too much, or generalize inappropriately, from very limited data. In fact, as we have described above, making concrete claims about the pattern or magnitude of sexual violence is an exceedingly difficult endeavor, even for researchers who do not face the additional imperative to conduct advocacy campaigns.

Frequently such reports include a formulaic disclaimer about limits to quantification—but such disclaimers are frequently followed immediately by an unqualified quantitative claim. For example, Oxfam Colombia (2009) noted that “[t]hese figures offer only a partial reflection of the magnitude of this problem, given that a majority of the sources agree that sexual violence is grossly underreported at the national level,” but proceeded immediately to an unsupported estimate of under-registration rates.

In our literature review of reports on conflict related sexual violence in Colombia, we found at least four references to estimated proportions of underregistration. However, a search for the study or supporting

reference leads nowhere concrete. Usually the references lead to other reports, then on to other reports and sometimes in full circle back to the original report consulted. For example, Oxfam (2009) reports “up to 90%” underregistration, citing INML reports. The claim that “...only 9% [of women] have filed a report” leads the United Nations Development Program’s (UNDP’s) National Human Development Report for Colombia in 2000, but the authors provide no support for the estimate.

A second example of unsupported estimation is found in reports by CERAC (2009) and Sisma (2008), each of which cites the INML, which in turn cites a study in the *Revista Colombiana de Obstétrica y Ginecología* (Devenir 2003). All these sources refer to “95% underregistration” of sexual violence in Colombia. However, the original article refers to a *possible* rate of underregistration *in the United States*. The most obviously over-specified estimate was presented in Watchlist (2004), stating that “[e]stimates indicate that only 17 percent of cases of sexual violence are reported,” with no citation to any study or report.

Other reports may not specify so concretely the possible under-registration rate, but—perhaps more worryingly—they make unsupported claims regarding relative patterns and severity of sexual violence. But what do these patterns really mean? Again, given the weakness of the underlying data, there is no way to know whether these claims are correct. Oxfam Colombia (2009) states, “[d]elving deeper into the data we find that women who are indigenous, Afrocolombian or heads of their household are the demographics most affected by displacement.” The Defensoría del Pueblo (2008) states that “sexual violence has become one of the weapons of war most frequently used by the armed actors in the Colombian internal armed conflict.” To use “the most” or “most frequently” is to make a very strong, and inherently quantitative, claim. Such claims cannot be supported by existing data.

Overinterpretation of data on under-registration, pattern and magnitude is a symptom of a broader impulse to overinterpret data. We argue that Colombian

advocacy organizations should be quite concerned about the phenomenon of “citation laundering,” the recycling of figures and citations without fully vetting their statistical validity or basic meaning. Claims about sexual violence—for example, those regarding the magnitude of sexual violence, its victims, or the relative severity of sexual violence in various contexts—may profoundly affect policy interventions and, via policy interventions, the lives of individuals. Thus, although statistical and quasi-statistical claims hold immense rhetorical power, they must not be seen merely as means of argumentation.

The technical accuracy of a given statistical claim is also a requirement for survival in a frequently hostile political environment. Human rights organizations find themselves in a difficult structural position, needing to make strong claims but subject to intense scrutiny from hostile “observers” attempting to discredit organizations by discrediting their methods. In this dynamic, citation laundering is as politically dangerous as outright fabrication; advocacy organizations must exercise caution as they evaluate other groups’ claims.

A singularly powerful actor in this arena is the international community, broadly defined. By “international community” we mean private and government donors, as well as supranational organizations such as the UN. International organizations must set realistic goals regarding data on sexual violence, in order to avoid incentivizing—or even requiring—counterproductive overinterpretation. For example, the UN Security Council’s Resolution 1889 (2009) specifically requests that “relevant United Nations bodies, in cooperation with Member States and civil society, collect data on, analyze and systematically assess particular needs of women and girls in post-conflict situations.” In practice, “collect[ing] data” has generally meant collecting *quantitative* data—usually convenience data. Pursuant to this request, program requests often rest on overinterpretations of convenience data. The research team cautions that incentivizing the use of data without building data collection and analysis capacities may produce unintended consequences,

such as factually incorrect policy decisions and loss of credibility locally, nationally and internationally.

The examples we discuss above should be understood as examples of a much more general phenomenon, resulting from the structural conditions faced by advocacy organizations. In the case of wartime sexual violence, such constraints are extremely difficult to surmount: media outlets, jurists, policy-makers and human rights funders all demand quantitative data, yet quantitative data on sexual violence is extraordinarily difficult, expensive and time-consuming to produce responsibly. In the short term, advocates may view unsubstantiated numerical claims or citation laundering as beneficial (Cohen and Hoover Green 2010)—but in the long term, we are extraordinarily concerned

that such claims will damage advocacy organizations' credibility and strengthen their adversaries.

The solution is not a wholesale retreat from quantification. Rather, we advocate increased investment by the international community and key human rights donors. We advocate investment, not only in the development of data collection and analysis techniques *per se*, but in specific, long-term, best-practices quantitative investigations at the local level. The benefit here is twofold: local organizations gain national and transnational connections as well as rigorous research skills, and the amount of high-quality data available on this important problem can be greatly improved. As we discuss below, various aspects of the Colombian situation make it an ideal starting point for such investments.

Indirect data: A way forward?

What, exactly, is indirect data? By “indirect data,” we mean data that measure something other than the phenomenon of interest, but which can be used to reason about the phenomenon of interest. For example, researchers investigating deaths of political prisoners in Chad coded document flows as they considered Chadian President Hissène Habré’s command and control structure. Document flow considers who or what office authored each document, to whom the document was directed, and who was copied. It is an indirect measure of command and control: on its own, document flow neither links deaths to the prison system nor shows that Habré knew specific information regarding the prison system. However, in the presence of other relevant information, including information about daily mortality in the prison, these document flows became an important component of the advocacy campaign calling for a trial of former President Habré (Silva, Klingner and Weikart 2010). In another example, human rights advocates in the Punjab region of India had qualitative knowledge of the police’s involvement in forced disappearances and killings, but were initially unable to support their beliefs with data. However, they obtained data regarding police purchases of firewood for use in cremations and were able to match patterns in reported disappearances with patterns in police firewood purchase (Silva, Marwaha and Klingner 2009).

Indirect data are not sufficient, on their own, to confirm patterns or magnitudes of violence, but they can be very useful in supporting or disconfirming researchers’ working hypotheses at the local level. Note that indirect data, like any statistical data, never

prove a hypothesis—but they can produce observations *consistent* with particular hypotheses, and they can *disconfirm* hypotheses.

From available direct data, we learn important details about local dynamics of violence and individual cases of sexual violence. However, at the population level much remains to be determined. Given the available data, the research team can report confidently only that *reported* patterns of conflict-related violence, including sexual violence, differ significantly between regions in Colombia. However, the available information does not allow for accurate estimates of the magnitude and pattern of violence at the population level. In addition, conflict-related and non-conflict-related sexual violence have proven quite difficult to disentangle, both conceptually and empirically.

Thus, we return to the question that gave rise to this study: can we derive additional useful information about conflict-related sexual violence from indirect data? Our answer is a qualified yes. The feasibility of using indirect data to learn about sexual violence in Colombia depends on the researcher’s goals. If the goal is to complement, rather than supplant, direct data collection efforts, then indirect data will be a valuable resource as researchers piece together a more complete picture of the violence, including sexual violence, that has plagued the country. However, using indirect data in isolation, as the primary source of evidence, is not generally feasible, largely because the traces left by sexual violence in society can be left also by other shifts: unrelated demographic shifts, socioeconomic, cultural, or political shifts, changes

in resource endowments for health reporting, and many, many others. However, as a complement to direct evidence, indirect data can provide important missing information; it may strengthen or question existing hypotheses.

In considering the feasibility of using indirect data, we must first propose several types of information that might constitute indirect data on sexual violence. Below we discuss a number of different indirect information sources. We ask questions such as what social phenomena are linked to sexual violence? What demographic changes might be associated with sexual violence, either locally or nationally? Does sexual violence lead to changes in economic or educational participation? Who knows about sexual violence but is not expected to report? Answering such questions is arguably simpler than directly measuring sexual violence, but we caution that a poorly-measured proxy variable is just as misleading as a biased direct measure.

The research team examined one potential use of indirect data, but found no evidence that indirect data that could be conclusively linked to sexual violence in Colombia. We initially hypothesized that variation in the use of the abortifacient Misoprostol could indicate variation in the incidence of sexual violence.

Overview: Indirect data on sexual violence

Researchers have attempted to measure phenomena associated with sexual violence, rather than sexual violence directly, in a number of contexts and by a number of methods. Most notably, Swiss and Giller (1993) used pregnancy rates to establish a minimum number of wartime rapes in Bosnia. According to general health statistics, at least 1% of incidents of unprotected sexual intercourse result in pregnancy. Using this rate, the authors extrapolate from the observed number of pregnancies due to rape (119) to conclude that at least 11,900 women had been raped during the Balkan conflict. However, Swiss and

However, both in the case of Misoprostol data and more generally, our findings suggest that indirect data are unlikely to provide clear evidence regarding sexual violence; furthermore, such data do not offer information on the relationship of conflict to sexual violence. Initially, the research team hypothesized that conflict-related sexual violence in Colombia might, like forced disappearances in India, leave obvious traces in quantifiable records. As we delved into the issue of sexual violence during the Colombian conflict while reflecting on the India example, we found no indirect evidence that would help to understand sexual violence in Colombia as clearly.

Below we discuss in greater detail several ways in which indirect data might be included in the study of wartime sexual violence in Colombia. We begin with a general discussion of how indirect data might best be incorporated into an investigation of sexual violence, particularly noting the importance of forming and testing specific, local hypotheses. Indirect data are *not* useful for answering macro questions such as “How did patterns of sexual violence in Colombia change over time?” However, they may be quite useful when the question is more specific: “Was the presence of armed group X associated with a spike in sexual violence in municipality Y?”

Giller note that the objective of their work is not to generate exact prevalence of rape, but to use medical data to suggest a scale of violations—a minimum number of rapes—that cannot be determined from individual testimonies alone or other incomplete convenience sample data. Swiss and Jennings similarly deduced the prevalence of rape during armed conflict in Sarajevo by comparing the number of abortions during conflict and before conflict (SSRC 2006). Such a proxy measure for rape depends, however, on the existence and reliability of pre-conflict data. Moreover, the methods using pregnancy rates are not be able

to address the magnitude of sexual violence that did not involve rape.

Jennings and Swiss (2000: 5) discovered during focus group discussions that some Liberian women had been forced to serve as cooks for armed groups, a position that placed them at high risk for sexual violence. By including questions about forced domestic servitude in their survey, the authors found that this experience had a high correlation with rape, attempted rape, and sexual coercion. Jennings and Swiss also caution that this particular pattern of sexual assault associated with domestic service may be unique to soldiers in the Liberian civil war. Associating events or phenomena related to sexual violence in a particular armed conflict may therefore require a qualitative investigation on the patterns and practices of combatants.

In addition to asking about experiences outside of the common understanding of sexual violence, some investigators have asked about experiences of sexual violence against others, that may have been witnessed by the respondent, on the assumption that respondents might be more willing to talk about others' experiences than about their own (RHRC 2006:11). For example, one study reported that 23% of respondents witnessed an act of sexual violence, while 16% of respondents reported having experienced sexual violence themselves (Vinck et al. 2008). Boesten, reviewing the Truth Commission investigation process in Peru, observed: "few women openly testified about their experiences of sexual violence, but both men and women referred to the widespread occurrence of rape in the third person" (Boesten 2010: 117).

There is some evidence to suggest that, in some contexts, individuals might know about incidents of sexual violence taking place around them. The World Health Organization's Multicountry Survey on Domestic Violence, for example, found that women tend to seek help from informal sources such as family members and neighbors more often than social service providers (Garcia Moreno et al. 2005:87). The Program on Forced Migration and Health at Columbia University and ChildFund International developed a

"neighborhood methodology," which involves randomly sampling households in a given area and asking questions regarding sexual violence experienced by the respondent as well as sisters and neighbors (Stark et al. 2010). Stark and colleagues implemented a similar methodology in Northern Uganda, and found no difference between the prevalence as calculated by neighbors and prevalence as calculated by self-response. Asking neighbors to report incidents of rape in their neighborhood resulted in approximately the same prevalence as asking householders to report their experiences of rape directly.

The fact that no difference exists between neighbors' responses and individuals' self-responses cannot confirm or disconfirm the reliability of neighborhood methods. Indeed, Stark et al. may simply have proven the strength of disclosure bias: victims who are already well-known in their communities are precisely those who have nothing to lose by reporting.

The physical effects of sexual violence have been thoroughly documented across various armed conflicts, and present another potential indirect indicator of sexual violence (e.g. Swiss and Giller 1993: 614; Amowitz et al. 2002: 520). In Sierra Leone, researchers from Physicians for Human Rights observed that bodily injury, sexually transmitted disease, and reproductive complications, including miscarriages, were the most commonly reported medical consequences of sexual violence (Amowitz et al. 2002). Kerimova, analyzing violence against women in Azerbaijan, noted a correlation between genital ulcers, lower abdominal pain, and history of forced sexual intercourse (Kerimova 2003: 1069). While the physical effects may be a proxy for sexual violence, many of the same physical problems can be produced by other traumas (e.g., fistulas can result from rape or problems in childbearing). Similarly, some victims may conceal the physical outcomes of sexual violence as part of their general effort to conceal the fact that they have suffered the assault, thus these indirect measures may be subject to disclosure bias.

The negative psychological impact of sexual violence has been thoroughly documented in non-conflict and

conflict settings (see, e.g., Johnson et al. 2008, Cardozo et al. 2009). The RHRC has used the General Health Questionnaire-12 (GHQ-12) to assess the psychological distress of respondents and identify women who are highly distressed and may benefit from a more thorough follow-up assessment or intervention (RHRC 2006: 10). Johnson used a 17-item PTSD Symptom Scale Interview to assess levels of Post-Traumatic Stress Disorder among respondents, and found that combatants who had experienced sexual violence scored higher on the PTSD Symptom Scale (Johnson et al. 2008).

As with physical symptoms, however, it can be difficult to correlate mental distress with a specific act of sexual violence, as opposed to other sources of trauma. Hynes et al. (2000:821) caution: “Although several studies have identified the health consequences for women experiencing the traumas of war, including rape, this research has not been able to definitively attribute these health effects to rape alone.” Because sexual violence in armed conflict is often accompanied by other forms of violence and trauma, it may be difficult to deduce incidents of sexual violence from physical or emotional symptoms alone. This may be particularly true where the source of information comes from survey responses from a survivor, and not a clinical observation from a physician, who may be able to make distinctions between sexual violence trauma and other injuries. More generally, the distance between proxy measures (in this case, health or mental health outcomes) and the phenomenon of interest (sexual violence) seriously limits indirect analytical capacity.

Indirect data may, and typically do, suffer from the same types of bias as do direct data. Their benefit lies primarily in the ability to measure phenomena related to sexual violence without (necessarily) retraumatizing victims, exposing them to unnecessary risks, or asking directly about taboo subjects. In addition, indirect data may provide extremely valuable information when no direct data are available. As we discuss below, indirect data should be used with at least as much caution as direct data, especially when the distance between the phenomenon of interest and the proxy measure is high. Like direct data, indirect data cannot be used to infer

population level hypotheses; nor can they provide the sole support for even the most local of hypotheses.

Key Challenges of Identifying and Measuring Conflict-Related Sexual Violence Phenomena Using Indirect Data Sources

Sexual violence is an elusive phenomenon, hidden from general public view both by the victims (given the associated stigma with such violence) and by the perpetrators (to ensure continued impunity). Measurement of population level social phenomena involves the identification, classification and aggregation of individual data.

From a demographic perspective, indirect measurement of sexual violence is challenging because, unlike classical demographic estimation of vital events such as mortality, fertility or migration, the phenomena of sexual violence is not as obviously observed in the public sphere. When people are born, marry, die or cross borders, there are often registration processes (even though they might themselves suffer from under-registration) or religious/cultural rituals to mark the process. As a result, births, deaths, marriages and migration can be identified and located in time much more easily than acts of sexual violence. Some kinds of sexual violence, such as forced nudity, are committed in public to explicitly shame the victim. However, much, perhaps most wartime sexual violence is committed in private and therefore much more difficult to record. Perpetrators often intend to conceal their actions, and victims of wartime sexual violence have many reasons to conceal their experiences. As a result, even coarse quantitative description of the patterns or magnitude of sexual violence is difficult.

When using indirect data sources to make inferential conclusions about sexual violence, it is important to understand the demographic consequences of the different array of sexual violence phenomena. Figure 5.1 provides some generalizations, comments and qualifications about the different manifestations of sexual violence and how the individual level acts and processes may aggregate across the population.

Type of Violence	Potential Demographic Effects	Comments and Discussion
Rape	<p>The short-term direct impact of rape during armed conflict may result in an initial increase in the fertility rate due to an increase in short-term unintended pregnancies. The long-term fertility consequences of rape during armed conflict is likely to be, in general, ambiguous; it may or may not affect overall fertility.</p>	<p>The long-term fertility consequences of rape are likely to depend on cultural context. In populations where rape is heavily stigmatized, women may be discriminated by the community and prospective partners leading to an overall decline in their lifetime fertility. In populations where the wartime rape is coupled with extreme force causing long-term physical damage to the victim's reproductive organs, lifetime fertility of victims may also be reduced. The age profile of rape victims is also likely to heavily influence the impact of rape on a victim's lifetime fertility level, but the direction of such effects is unknown. In societies where childbearing is almost exclusively within marriage, unmarried rape victims may experience diminished marriage prospects resulting in reduced expected lifetime fertility.</p>
Sexual Slavery	<p>Sexual slavery has been defined (within the Rome Statute of the International Criminal Court, art. 7(2)(c)), as "repeated violation or sexual abuse or forcing the victim to provide sexual services as well as the rape by the captor." Similar to rape, the short-term fertility consequences of sexual slavery are likely to result in an initial increase in fertility. The long-term fertility consequences of sexual slavery seem ambiguous given the heterogeneity in forms of sexual slavery. Some forms of sexual slavery are more akin to forced prostitution, whereas other forms resemble forced marriage. As a result, in some situations sexual slavery may result in an increase in fertility for the affected women, but in other cases there may be little or no overall effect.</p>	<p>The nature of this form of violence is continuous and may involve forced intercourse with one or many partners over a sustained period of time.</p>
Forced Abortion and Forced Contraception	<p>The short-term and long-term fertility impact of forced abortions is likely to be a decrease in lifetime fertility of victims. This effect is likely to be particularly pronounced if female recruits to armed groups, who are vulnerable to forced abortions, are mostly women with limited educational attainment from rural areas, because females with low educational attainment from rural areas tend to have, on average, high levels of fertility in most developing countries.</p>	<p>Forced abortion and forced contraception have mostly been reported to be practiced by non-state actor insurgent groups and paramilitaries as part of their repertoire of violence against female combatants.</p>

Type of Violence	Potential Demographic Effects	Comments and Discussion
Forced Nudity	Given that forced nudity is intended to publicly humiliate the victim, it may lead to reduced opportunities for marriage for the affected women in some communities. As a result, it may result in reduced fertility, due to the shame and humiliation imparted on the victim. However it is likely that, given forced nudity is often perpetrated in concert with other forms of sexual violence, that the accompanying forms of sexual violence (such as rape and sexual slavery) are likely to have a notable effect on the victim's short and long-term fertility outcomes.	Forced nudity has been reported during several (e.g., the Peruvian conflict, the Liberian conflict). In most situations, forced nudity is usually accompanied with other forms of sexual violence (such as rape and sexual slavery).
Mutilation of Sexual Organs	Injury to the sexual organs is likely to result in reduced ability to become impregnated, conceive and/or carry a foetus to term. Thus resulting in lower overall fertility to those women affected by this form of violence.	In Sierra Leone and Liberia, for example, there have been reports of the mutilation of victim's sexual organs. Such mutilation may result in temporary or permanent damage to the sexual and reproductive organs of the victim.

Figure 5.1 shows the complexity and ambiguity of the various short- and long-term demographic consequences for different forms of sexual violence. In particular, assessment of the demographic impact of sexual violence is complicated by confounding factors. In addition to the challenges of identifying and measuring such phenomena due to potential stigma which victims face, sexual violence often occurs in conjunction with other forms of violence and human rights violations. This makes it complicated to attribute population effects to a single form of violence.

In addition to the potential for confounding factors, the overall effect on fertility may be low. Holmes et al (1996) reported that the national rape-related pregnancy rate in the United States is 5.0% per rape among victims of reproductive age (aged 12 to 45). In contrast, an expert mission commissioned by the United Nations to evaluate the magnitude of rape during the early 1990's in the Former Yugoslavia, relied on published estimates by Cates and Blackmore, which suggests a pregnancy rate of about 1 per 100 acts of rape, that is, five times less likely than the U.S. estimate.

There can be much heterogeneity in the reproductive health and sexual practices within national populations. Protracted conflict dynamics are likely to affect such processes as the marriage market, household formation, fertility intentions and preferences, fertility outcomes, and household composition and resource allocation. McGinn (2000) has noted that reproductive health practices may differ substantially among populations in settled situations, IDP and refugee camp settings, as well as unsettled situations during armed conflicts. Such heterogeneity poses substantial challenges to the indirect measurement of phenomena such as sexual violence during armed conflict. As changes in population level aggregates may be a result of this heterogeneity as opposed to the direct outcome of large-scale acts of sexual violence.

Some of the demographic effects resulting from different forms of sexual violence operate in opposite directions. For example, the short-term fertility impact and population size effects of forced abortions are likely to lead to a decrease in lifetime fertility of the victims and thus a reduction in overall population size.

However, forms of sexual violence such as rape and sexual slavery are likely to lead to an initial increase in fertility levels. In order to use observed population outcomes (such as fertility or population size) to make conclusions about conflict-related sexual violence based on indirect data, the analyst needs to decompose these contradictory effects. Further, the long-term fertility and population consequences are likely to be subject to great uncertainty (measured as statistical error). Such long-term demographic consequences are likely depend heavily on whether the victim is at the early stages of her reproductive life (e.g., aged in her teenage years or early twenties) or towards its end (i.e., aged

in her mid to late forties). Thus specific knowledge or assumptions about the age-pattern of victims of different forms of sexual violence is needed.

In conclusion, while indirect demographic data may be useful and appealing, given the challenges associated with the collection of direct data on sexual violence, inferential conclusions based on such indirect data sources about the magnitude and pattern of sexual violence require either additional data or strong assumptions about the nature and relative magnitude of different forms of sexual violence, as well as the age-profile of the victim population.

Using indirect data: best practices

Imagine that you, the researcher, have a significant collection of indirect data, for example data on sexually transmitted diseases, that may provide evidence about conflict-related sexual violence. These data cover several years in one municipality. Imagine also that a particular armed group was present for portions of the period for which you have data. In this section, we consider how these data might be used responsibly to investigate a local hypothesis or questions, for example: did the armed group in question commit sexual violence in the municipality? In the discussion below, we propose three standards for responsible indirect data use: specificity, complementarity and iterative testing.

Specificity means using indirect data only in situations where the research question is specific and localized. As we state above, inferences about large populations are not currently possible with quantitative data. However, the researcher who has access to local data and a rich knowledge of local contexts may be able to employ indirect data usefully. Based on what we know of particular armed groups and particular locations—and indeed, particular sexually transmitted diseases—we can generate specific observational implications of our hypothesis. For example, if we hypothesize that armed group X committed sexual violence during the time it was stationed in the community, this implies that rates

of reported sexual violence should rise during periods when armed group X was present in the municipality.

Several issues with this observational implication arise immediately. If the expected correlation between higher STD rates and armed group presence appears in the data, critical researchers would ask whether some factor other than the armed group presence caused the higher reported STD rates. What if, for example, armed group control of the community was associated with increased order and stability, allowing more STD sufferers access to medical treatment? If the expected correlation is not observed, a critical observer should ask: what if sexual violence and sexually transmitted disease rates rose, but some factor (violence, social stigma, decline in clinic resources, unavailability of drugs for treatment) depressed reporting rates during group X's period of control? More generally, researchers must actively seek alternative causal theories that explain observed data equally well. Were women voluntarily engaging in sexual intercourse with the armed group? Was there an increase in sexual services to the group? Are there any other reasons why STDs could have gone up in a time or place independent of sexual violence by the armed group?

Complementarity means that the researcher uses indirect data only to complement other sources and types of data.

Considering alternative explanations requires significant local knowledge. Whether or not a hypothesis is plausible may turn on details that cannot be found in quantitative data and must be sought elsewhere—for example, oral histories about the community’s traditional practices of intimate relationships, or community knowledge about other migrants to the region who may have been infected with the STD in question. Complementarity is impossible without specificity.

Has there been a new incentive for people infected with an STD to report or seek attention at hospitals that was not present before? To return to our example, while quantitative data on STDs cannot distinguish between alternative hypotheses, some alternative hypotheses can be ruled out qualitatively. For example, researchers might interview key informants for information about levels of order and stability during the time that group X was in the municipality. They might search administrative records for population changes that occurred during the period of the armed group’s control. This qualitative information might then change, or indeed reinforce, our initial assessment of quantitative data.

Iterative testing refers to the multiple “rounds” of investigation that are required to test a given hypothesis about patterns of sexual violence. In addition to our initial indirect data, our specific local hypothesis, and complementary qualitative data, researchers frequently require additional quantitative data in order to distinguish between causal theories. Iterative testing might include gathering additional direct data (e.g., performing a survey) or seeking out further indirect indicators. For example, if group X was said to carry a *specific* sexually transmitted disease (rather than disease more generally), we might hypothesize that rates of that specific STD should spike during or after the armed group’s presence, and increase our focus on that particular disease.

Similarly, if we believed that the armed group was attacking women who regularly participated in some activity (walking to school; selling in a market), then we would hypothesize changes in those groups’ rates of STD, rather than the rates specific to other groups. If the armed group was reported to have targeted a specific group of women, did demographic changes reflect those women leaving or engaging in other protective activities? Did adolescent girls “disappear” from school registers and/or show increased fertility rates that were correlated with the presence of the armed group?

Considering the available data, local circumstances and alternative explanations may clarify the need for new investigations. For example, if specific segments of the population are unlikely to report STD infection and also unlikely to report sexual violence, further data collection is necessary. Researchers must ask who, if anyone, has access to the groups in question, and whether a more intricately designed survey or interview technique can improve reporting. If not, additional data collection may include seeking elites from the group in question, in order to gain knowledge about the absence of data: does it reflect an absence of sexual violence, or simply refusal or reluctance to report? Such data collection must be designed with previous findings in mind; it must also tread carefully in order not to reproduce the bias in the existing data. The process of creating, testing and refining local hypotheses can be iterated any number of times.

In the following section, we consider a case study on indirect data use from the Colombian context. In particular, we investigate a hypothesis that sexual violence might be indirectly measured using data on the sale and use of a stomach remedy that also induces abortion.

Indirect data case study: Misoprostol use

Our case study concerned the abortifacient drug Misoprostol. During the initial interview process, some respondents hypothesized that Misoprostol use might be an effective indirect measure for conflict-related sexual violence. As we describe in this section, however, we established that data on Misoprostol use and Misoprostol sales could not be used this way.

Background

In May 2006, the Colombian Constitutional Court decriminalized abortion in three cases: (1) when the fetus' health is endangered; (2) when the health of the mother is at risk; and (3) when the pregnancy is the result of sexual violence (Decision C-355, May 10, 2006). Still, abortion remains extremely taboo in Colombia, and women who have suffered sexual violence encounter many obstacles in seeking legal abortion. In addition to the considerable legal obstacles, many physicians refuse to provide abortions, citing the right to conscientious objection. Still more disturbingly, deaths due to lack of medical assistance have also been reported in cases of incomplete abortion; in such cases, physicians refuse to promptly attend the woman on the suspicion that the incomplete abortion was intentionally self-induced (Interview, Grupo Jurídico de Antioquia, 2010). Finally, in some cases authorization for the procedure took so long that abortion was effectively ruled out due to advanced fetal age. For these reasons and many others, many women still abort illegally even if their pregnancy is the result of a rape.

Misoprostol is a gastrointestinal drug, which produces vaginal hemorrhages and uterine dilatation if administered to pregnant women.¹ In 2007, the National Institute for Drugs and Food Surveillance

(INVIMA by its Spanish acronym) authorized the use of Misoprostol in legal abortions provided by hospitals (Acta 20/2007). In addition, its abortifacient properties are well known among women in many, if not most, areas of Colombia. Consequently, it is often used outside any medical supervision. Indeed, because Misoprostol is sold at lower prices than pregnancy tests, women frequently use it as a form of emergency contraception. In Colombia, Misoprostol or Citotec is considered as a restricted "special control" drug (Resolution 004651 [December 15, 2005] of the Colombian Ministry of Social Protection). As such, it is supposed to be sold only by prescription, and its importation, distribution and sale is ostensibly under the control of the National Drug Fund (Fondo Nacional de Estupefacientes).

Initially, we hypothesized that Misoprostol could be an indirect data source for the practice of illegal abortions, together with INML information on fetus' deaths due to drug intoxication. If available, data on the sale of Misoprostol (outside hospitals) could indicate abortion practices in a given place and in a defined time period. A sharp rise in abortions in a specific area or time frame could indirectly indicate sexual violence; indirect indications of sexual violence coupled with evidence of armed group presence would be consistent with a hypothesis that a given armed group committed sexual violence considerably "above baseline."

Data on Misoprostol use

Lack of accurate data presented the most serious obstacle to our use of Misoprostol data to proxy sexual violence. First, as Swiss and Giller (1993) report, pregnancies resulting from sexual violence are rare; in addition, not all women who become pregnant as a result of sexual violence will abort, reducing the odds that data, if they were available, would show any discernible trend. Second, although Misoprostol is ostensibly a restricted-use drug, it does not seem that the Colombian state (or other authorities) exercise

¹ In the United States, Misoprostol is used as the second step in chemical abortion, after Mifepristone (popularly known as RU-486). (See, e.g., US Food and Drug Administration information on Mifepristone at <http://www.fda.gov/drugs/drugsafety/postmarketdrugsafetyinformationforpatientsandproviders/ucm111323.htm>.)

strict control over its sales. This has allowed the development of a thriving over-the-counter black market in Misoprostol. Even in cases with registered buyers, it is difficult to distinguish the purpose of a given purchase. As a consequence, data from regional health departments are likely to be incomplete. A survey of local pharmacists might produce clearer answers, but disclosure bias would likely distort those results as well.

Alternative hypotheses

Assuming for the moment that significant amounts of data on patterns of Misoprostol purchase could be obtained (we do not believe this to be the case), could these data distinguish increases in sexual violence associated with the conflict? Data showing no increase in Misoprostol purchase would be entirely inconclusive, because of the biases considered above.

Data that showed increases in Misoprostol use outside the normal range of (reported) variation *could* support a hypothesis of increased sexual violence, but—as we described above—only in *specific* locations and times, only as a *complement* to other data, and only after repeated (*iterative*) rounds of hypothesis testing. The first step in our investigation, given an initial finding of increased reported Misoprostol use, would be the generation of alternative hypotheses also consistent with that observation. For example:

- Was the increase in Misoprostol use actually a result of increased abortion? Or did it coincide with, for example, an outbreak of communicable gastrointestinal illness?
- Was the increase in Misoprostol use actually a result of increased abortion? Or did it coincide with, for example, the unavailability of medical personnel to perform surgical abortions, suggesting that the overall abortion rate was constant?
- Assuming that increased Misoprostol use was a result of increased abortion, was the increase a

result of unplanned pregnancies due to voluntary sexual relations with the armed group?

- Assuming that increased Misoprostol use was a result of increased abortion, was the increase a result of an increase acceptance of abortion as a response to unplanned pregnancy? Is increased Misoprostol use the result of substituting Misoprostol for some previously-used technique?
- Assuming that increased Misoprostol use was a result of increased abortion, was the increase a result of an increase in non-conflict-related sexual violence, perhaps secondary to generalized insecurity?
- Assuming that increased Misoprostol use was a result of increased abortion, was the increase a result of generalized financial and physical insecurity associated with the conflict, rather than directly perpetrated violence?
- The Revolutionary Armed Forces of Colombia (*Fuerzas Armadas Revolucionarias de Colombia* or FARC) are reported to have practiced forced abortion within their ranks. Is increased abortion due to the local presence of FARC troops?

These are only a few of the many causal chains that could appear in the data as an association between armed group presence and Misoprostol use. If researchers were to obtain significant amounts of data related to Misoprostol use, these data could not be responsibly analyzed without significant additional investigation. In particular, researchers would be obligated not only to assess the accuracy of the data themselves, but to consider the possibility that non-conflict sexual violence, or non-sexual-violence health issues, caused the finding. As we noted in the preceding section, these types of complementary investigations are best performed in a specific locality, with respect to a specific local hypothesis.

Potential local investigations

Complementary investigations that might strengthen the link between Misoprostol use and sexual violence would include oral histories with local leaders, including medical personnel, religious leaders and—perhaps most importantly— pharmacists, who dispense the drug most frequently. Focusing on the specific period of time in which Misoprostol use appears to have increased, researchers might ask: was there an epidemic of gastrointestinal illness around that time? Did something happen that caused doctors or nurses to leave? What was the gender balance of people who bought Misoprostol then? Did anyone buy a lot at a time?

Qualitative questions like these can help identify gaps in the data, as well as distinguishing between alternative hypotheses. If local leaders suggest that abortion, including chemical abortion, is extremely taboo, this might strengthen a secondary hypothesis

Indirect Data: Conclusions

Indirect data can be startlingly useful under the correct circumstances. However, they can also be extremely misleading; the fact that a measurement is indirect does not exempt that measurement from the considerations discussed above in Chapter 3. To restate our main finding: at the present time,

that data indicating no increase in Misoprostol use are incomplete. Qualitative reports of a strong black market in Misoprostol might have the same substantive effect. Such questions may suggest further necessary data collection and hypotheses, that is, they may—and probably should—lead to *iterative testing* procedures.

However, we emphasize that, at least for the moment, all these potential investigations remain entirely hypothetical. Prior to any consideration of the alternative explanations outlined above, such an investigation requires reliable data on Misoprostol purchase or use, and this information is simply unavailable, for a multitude of reasons. In line with our general finding on indirect data, we find that employing data on Misoprostol use as a proxy for sexual violence is not feasible at the moment, but that specific, local investigations, using a number of approaches to the hypotheses in question, could employ Misoprostol data effectively if such data were available.

we know of no indirect data source that could serve as a basis for inferences about the level, pattern, or causes of sexual violence in Colombia. However, we are optimistic that this type of data will emerge; when it does, its analytical and rhetorical effectiveness will rely on careful, responsible inferences.

Conclusions and Recommendations

Our research process, beginning with an in-depth investigation of indirect traces of sexual violence, eventually led to much a broader reflection on the utility of various data sources (both “direct” and “indirect” sources) in making claims about sexual violence during armed conflicts. In addition, the research process clarified complex methodological challenges hidden behind available data. Sexual violence researchers should be asking, consistently and rigorously, what influences the evidence of sexual violence to which we have access. For example, we must ask: what *don’t* we know, and why? What might the gaps in our knowledge themselves tell us about how that knowledge was created? What might it tell us about the (unknown) underlying distribution of violence? In short, how did the data collection process influence the data? Much of this paper will discuss variation in data-generation and data-analysis processes across multiple Colombian institutions. We believe a better understanding of the current state of our information is fundamental to improvements in data analysis going forward.

We argue that both direct and indirect quantitative data can improve our knowledge about sexual violence in conflict and post-conflict settings. However, such improvements require a nuanced description of the limitations, as well as the power, of each individual data source. We argue that interpretations are necessarily local in scope, and that even local findings cannot be reached without both qualitative and quantitative data, as well as significant local expertise. Nevertheless, as we explain below, we are encouraged at the possibility of using quantitative data as a component of studies that lead to improved understandings of sexual

violence, including conflict-related sexual violence, in Colombia.

Lessons learned

Beginning from an initial research question regarding the feasibility of indirect data for studying conflict-related sexual violence in Colombia, our research team has been confronted with a number of methodological insights, some very encouraging and some less so. These lessons learned include general observations on the state of sexual violence research as well as specific questions and considerations in the Colombian context. Below, we summarize our key findings and present recommendations.

Complex, heterogeneous reporting patterns

Patterns of sexual violence in Colombia appear to be extremely complex and heterogeneous, although the heterogeneity in the true patterns of sexual violence cannot be definitively distinguished from variations in the reporting. Assessing, and in some cases acknowledging, this heterogeneity is among the most difficult tasks facing human rights advocates in Colombia. As we document above, Colombian organizations have collected a significant amount of data, documenting a number of contexts in which sexual violence occurs. However, not all of these contexts can be tied to conflict, or even to armed actors. In consequence, we can say little regarding national trends or comparisons.

A second key area of ambiguity concerns the definitional issues surrounding both sexual violence *per se* and conflict-related sexual violence as a sub-category. Organizations in Colombia may collect information on radically different occurrences, categorizing them as “sexual violence” without forming consistent definitions of which cases are, or are not, conflict-related. Understanding which sexual violence is “really” conflict-related in a country beset by both conflict and endemic domestic and sexual violence represents a serious challenge for research on conflict-related sexual violence. In our opinion, significant further research is needed into the differential characteristics and effects of conflict-related and non-conflict-related sexual violence.

While patterns of sexual violence in Colombia are quite complex, patterns of sexual violence *reporting* may be still more complex. Acknowledging this complexity, and its effects on our understandings of sexual violence, is perhaps the most important lesson for researchers and advocates who work on conflict-related sexual violence. As we document above, conflict circumstances, as well as local cultural norms, strongly affect patterns of reporting. At this point, although acknowledgement of complexity is a key lesson, we cannot say definitively what these effects may be. We cannot estimate which regions, localities or victim groups are most affected by under- (and, indeed, over-) reporting.

Benefits of local inquiry

Both the true variations of patterns of violence and the unpredictability of reporting levels imply that national-level assessments of sexual violence are likely to be biased in unpredictable ways. Consequently, as we emphasize above, no broad, national understanding of patterns is forthcoming in the near term. At the micro level, however, biases in the data may be somewhat simpler to understand and predict, largely because data gathering organizations can partner with local experts to understand key contextual issues (e.g., religion, local customs and norms, local history) that may affect differential patterns of reporting.

In addition, more data may be available at the local level than at the national level, and such data may be used to confirm or disconfirm specific hypotheses. For example, local authorities such as educators, religious leaders, the family ombudsman for the municipality, and others may have a wealth of qualitative and quasi-qualitative information to offer, any or all of which may prove important to the inclusion or exclusion of specific hypotheses.

Another benefit of local investigation is that working with small populations over extended periods allows researchers to gain access and trust, to increase the analytical rigor of their data collection strategies, and perhaps most importantly, to generate specific hypotheses using local expertise. Our literature review reveals that small-scale investigations (including small-scale random sample investigations such as Swiss et al. 1998) may ameliorate problems of underreporting and selection bias somewhat.

We conclude on the basis of these findings that careful, detailed local investigations, while they will not immediately yield national policy solutions, will be more accurate than broader studies, and consequently will provide a stronger basis for long-term research and policy.

Limitations of quantitative data, including indirect data

Complexities of pattern and reporting, as well as the advantages of carefully designed local investigations, suggest a further lesson: neither direct nor indirect quantitative data can provide a complete understanding of sexual violence, including conflict-related sexual violence. Indeed, as we argued above and re-emphasize here, *quantitative data cannot currently be used as the basis of claims about the pattern or magnitude of sexual violence in Colombia.*

Increased understanding is possible using quantitative data, including indirect data. As we emphasize above, though, quantitative data should complement

investigations using various kinds of data and analytic approaches, rather than serving as the main evidence of sexual violence. In addition, such investigations must be local in scope if either qualitative or quantitative data are to be fully understood.

This study reveals that confidence in numerical data is frequently misplaced. Quantitative information is very much in demand as advocates attempt to make a case about their area(s) of interest, but the search for quantitative “proof” often leads to misuse of incomplete or biased data. As we show above, many analyses of Colombian data on conflict-related sexual violence are insufficiently rigorous. Both the data and the literature reviewed above suggest that analyses of sexual violence, including conflict-related sexual violence, understand limitations of data before attempting to make an argument on the basis of data.

Opportunities and recommendations

Don’t overclaim

We note a worrying disconnect between available quantitative and qualitative data, on the one hand, and generalizations from these data, on the other. With few exceptions, the data available to measure sexual violence in Colombia, including conflict-related sexual violence, are not designed for generalizability. These sources describe only the population directly recorded in the data. Of particular concern are specific quantitative or quasi-quantitative claims regarding the pattern (e.g., “systematic”) or magnitude (e.g., “widespread”) of sexual violence in Colombia, which cannot be supported or defended using existing data. In particular, we wish to draw attention to the politicization of debates about conflict casualties in Colombia (see, e.g., discussion in Price and Guzmán 2010), and to the fact that analysts antagonistic to human rights organizations can and will attempt to discredit advocates’ claims by criticizing their statistical methods.

Consequently, our first recommendation to advocates and other analysts of sexual violence is: avoid overclaiming. We strongly encourage users of data on sexual violence in Colombia to be cautious and rigorous about findings regarding sexual violence, particularly claims related to the legal requirements for international crimes. Indeed, at this time no quantitative data support claims about conflict-related sexual violence at the national level; hence, we urge advocates to focus on specific, local hypotheses rather than population level claims.

Don’t incentivize overclaiming

As we noted above, the data basis of many claims regarding conflict-related sexual violence in Colombia is weak. For example, the claim that sexual violence is “widespread” or “systematic” in the Colombian internal conflict may be true, but cannot be established on the basis of existing evidence. We note also that local and national organizations advocating against sexual violence have strong incentives to make such claims. Thus, we call on those who institutionalize such incentives (the international community and human rights donors, for example) to reconsider demands for quantitative data in the short term.

In the long term, we recommend large investments in local methodological expertise. By “building local expertise” we do not mean training in statistical analysis, but rather increased clarity regarding the origins and limits of human rights datasets. Best practices such as generating alternative hypotheses and understanding potential biases are logical, rather than technical, in nature, but it could lead to substantial improvements in advocates’ capacity to make defensible claims. Human rights organizations are not, and need not be, statistical experts, but local human rights leaders must understand the limitations of their information, and potential paths to improved information. In an era of quantitative data and rhetoric, human rights advocates will contend with antagonists who are politically biased against human rights complaints and methodologically savvy.

To support such initiatives, the international community and the community of donors in human rights must, themselves, understand the limitations of quantitative data. They must, in addition, carefully consider the incentives they provide. Are these incentives aimed toward long-term goals of understanding sexual violence and ending impunity? Or are they aimed toward showing, in the near term, that a particular location or issue faces the most dire emergency? If the structure of incentives leans toward short-term production of “big” claims rather than long-term production of knowledge, the international community bears responsibility for our general lack of understanding.

Use a multidisciplinary approach

Above, we explained the importance of iterative testing with quantitative data (and specifically, with indirect data). In addition to the development and consideration of alternative hypotheses, the iterative testing approach requires going well beyond the data, qualitative or quantitative, that may have motivated the original hypothesis. Similarly, the complementarity requirement suggests that, in many instances, iterative testing will require data well beyond the initial quantitative assessment. Indeed, given the difficulty of documenting sexual violence, and the incompleteness of any given data source, approaching the phenomenon from multiple analytical angles holds clear advantages.

Taking multiple approaches to each hypothesis is not only analytically beneficial; it clarifies the multiple ways in which barriers to reporting sexual violence in Colombia can be overcome. Sexual violence leaves a number of imprints upon society, both obvious and subtle. To assess them accurately, multidisciplinary thinking—though not necessarily a multidisciplinary research team—is required. Our recommendation is not that every researcher work with a team of lawyers, statisticians and social scientists, but that every researcher consider many sources and types of information regarding sexual violence.

Conduct rigorous, local studies

Analysts of sexual violence, far from attempting a unified population level approach to measuring sexual violence, should rely heavily on the qualitative and contextual knowledge of local experts. This type of local expertise is vital, because reliance on a single data collection and estimation strategy (or, indeed, a single type of data) is likely to lead to biased representations of the nature, scale and pattern of all conflict-related sexual violence.

As we suggested above in our local examples, limited periods of time and limited areas offer researchers their best chance at the type of interdisciplinary richness that allows for meaningful assessment of quantitative data. Analyses that employ quantitative data on sexual violence cannot reach responsible conclusions at broad (national, departmental or regional) levels. However, when research focuses on specific, local hypotheses, assessments of data quality, biases, alternative hypotheses and other key factors can employ qualitative information of many sorts. Indeed, at the local level specific hypotheses may generate a plan for further quantitative data gathering. Together, these types of investigation can lead to useful, rigorous conclusions regarding the local dynamics of sexual violence.

In time, we expect that increased expertise at the local level may lead to improved comparative studies (e.g., across municipalities). Existing comparative claims (e.g., “department X has more sexual violence than department Y”) is generally based on overinterpretation of data unsuitable for population level statistical inferences.

Continue researching sexual violence in Colombia

Some observers may view Colombia as an unlikely location for research on conflict-related sexual violence, due to the complexity and heterogeneity described in this report. However, in our assessment, heterogeneity may provide important advantages to researchers. For

example, comparing varying patterns of violence—or of reporting about violence—across relatively similar communities is possible within a country but quite difficult in the cross-national context, because so many factors may confound the investigation. In addition, this heterogeneity across localities may provide important evidence about the varying effects, as well as the varying causes, of differing patterns of reporting and sexual violence during conflict.

Additionally, our research demonstrates the extraordinary strength of Colombian civil society, its engagement with the issues, and its ability to effect change. Many state institutions function well on a day-to-day basis, which improves the accuracy and accessibility of

data. Low levels of violence in many areas of the country increase researchers' access to conflicted zones and thereby reduce the severity of reporting issues. Colombia provides a unique combination of rich data and (relatively) accessible conflict areas.

Most importantly, we urge continued investigations in marginalized populations that may be targeted for sexual violence, including indigenous and Afro-Colombian communities. The recent rape and murder of a fourteen-year-old girl in the department of Arauca, apparently by members of the Colombian army (see *El Espectador* 2011), also highlights the need for increased investigation of sexual violence by all parties to the conflict, state and non-state.

Part III

Appendices

Attempts to obtain official data on sexual violence

Article 23 of the Colombian Constitution guarantees the right “to submit respectful petitions to the authorities on the grounds of general or specific interest, and to obtain a prompt answer.” In order to gather as much information about sexual violence as possible, our research team sent 49 separate requests for information to national, regional and local institutions.¹ We requested all information about sexual violence and other crimes for the years 1990 to 2010, and requested that the information be disaggregated by sex, age, department and municipality, year, and perpetrator.

Eleven responses to our requests contained concrete, disaggregated information. These responses included those from specialized organizations such as health administrations, the National Planning Department, the criminal information system of the National Police, the Procurator General’s Office, the Sexual Unit of Bogotá Attorney General’s Office, and the Colombian Family Welfare Institute. Some of these institutions granted access to their raw data. Nine additional offices responded with broad, aggregate statistics that could not be used as part of our analysis. Other organizations failed to respond or repeatedly shuffled our requests between units. The Ministry of Defense, Acción Social, and the Justice and Peace Unit of the Attorney General’s Office employed this technique. Several regional and local administrations (e.g., El Carmen de Bolívar, Cartagena) also failed to

answer. In contrast, the local health administrations of the departments of Antioquia and Sucre, and the cities of Medellín, Bogotá and Sincelejo, responded quickly and with evident effort and interest. Perhaps not coincidentally, our most favorable responses were from regional agencies we had previously visited.

From this very small sample, we observe that information from government agencies seems to be the most challenging to obtain. The majority of government institutions did not respond to requests for data. Obtaining data related to the internal armed conflict (such as data on displacement, human rights violations cases, administrative reparations, on demobilized and armed forces) proved especially difficult.

We note in particular the dearth of information from within the Colombian military establishment regarding sexual violence. In many regions of the country, human rights advocates have lodged complaints of sexual violence perpetrated by military forces against civilian populations, especially adolescent girls and indigenous women. Until the subject was raised by the international community, the Colombian military appears not to have considered the issue or attempted to solve the problem. We found no research specifically analyzing the impact of the Army’s presence near a civilian population upon sexual and reproductive health in that population. To assess the availability of indirect data to that respect, we requested

¹ The research team submitted habeas data requests to the Ministry of Defense, Health Ministry, Attorney General’s Office, Procurator General’s Office, specialized entities such as Acción Social, National Planning Department, the Colombian Family Welfare Institute and National Police. Information requests were sent as well to municipal and regional administrative offices in charge of public order, health and education in five different types of municipalities in several areas of the country: Bogotá (Cundinamarca), Medellín (Antioquia), Sincelejo (Sucre), El Carmen de Bolívar (Bolívar), Cartagena (Bolívar) and their respective regional administrations (except Cundinamarca).

official information on STDs among military personnel, but received no answer.

According to an interviewee at the National Health Institute, information from the military hospitals—for example, on STDs suffered by state combatants—is confidential.

Accessing disaggregated data is also a challenge. Much of the data received in response to our official requests for information could not be disaggregated as requested. In addition, most government organizations

appear not to have kept digital records before the year 2000 (or, in some cases, later). Thus, researchers are unable to confirm or disconfirm an apparent increase in violence during the 1990's and early 2000's. The fact that more recent information *is* available digitally undoubtedly results from technological improvements. It may also be a result of the Uribe administration's insistence upon the use of numerical data in national debates, including debates over human rights. While such modernization is a useful development, we caution that the data themselves must be produced transparently and made available for public scrutiny.

Abbreviations

CAIVAS	Centro de Atención Integral a las Víctimas de Violencia Sexual (Comprehensive Care Center for Victims of Sexual Violence)
CERAC	Centro de Recursos para el Análisis de Conflictos (Conflict Analysis Resource Center)
CINEP	Centro de Investigación y Educación Popular (Investigation and Popular Education Center)
CODHES	Consultoría para los Derechos Humanos y el Desplazamiento (Consultancy for Human Rights and Displacement)
CPdV	Corporación Punto de Vista
CTI	Cuerpo Técnico de Investigación (Technical Investigation Unit)
DHS	Demographic and Health Survey
DRC	Democratic Republic of Congo
ENDS	Encuesta Nacional de Demografía y Salud (Demographic and Health Survey)
EPS	Entidad Promotora de Salud (Health Promotion Entity = entity in charge by law of offering health services)
FARC	Fuerzas Armadas Revolucionarias de Colombia (Revolutionary Armed Forces of Colombia)
FGN	Fiscalía General de la Nación (Attorney General's Office)
GBV	Gender-based violence
HRP	The Benetech Human Rights Project
ICBF	Instituto Colombiano de Bienestar Familiar (Colombian Family Welfare Institute)
ICRC	International Red Cross Committee
ICC	International Criminal Court
INML	Instituto Nacional de Medicina Legal y Ciencias Forenses (National Institute of Legal Medicine and Forensic Science)
INS	Instituto Nacional de Salud (National Health Institute)
IRR	Inter-Rater Reliability
MPS	Ministerio de Protección Social (Ministry of Social Protection)
MSE	Multiple Systems Estimation
MSF	Médecins Sans Frontières (Doctors Without Borders)
NGO	Non-governmental organization
OSI	Open Society Institute
PGN	Procuraduría General de la Nación (Procurator General's Office)
PN	Policía Nacional (National Police)
RHRC	The Reproductive Health Response in Crises Consortium
RIPS	Registro Individual de Prestación de Servicios (Individual register of (health) services)
STD	Sexually Transmitted Disease

SIVIGILA	Sistema de Información para la Vigilancia en Salud Pública (Information System for Public Health Surveillance)
SIVELCE	Sistema de Vigilancia Epidemiológica de Lesiones de Causa Externa (Epidemiological Surveillance System of Injuries from External Cause)
SIVIM	Sistema de Vigilancia Epidemiológica de la Violencia Intrafamiliar (Epidemiological Surveillance System of Domestic Violence)
SSRR	Survey on Sexual and Reproductive Rights of Vulnerable Populations
UNFPA	United Nations Population Fund
UNHCHR	United Nations High Commissioner for Human Rights
USAID	The United States Agency for International Development
UNDP	United Nations Development Program
UNDAW	United Nations Division for the Advancement of Women

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About the Authors

Françoise Roth is a French human rights lawyer and political scientist (Diploma in Public Law and Political Sciences at the University Robert Schuman (Strasburg, France.); LL.M. in International Legal Studies of the Washington College of Law (American University, Washington, United States of America); Specialist in Criminal Law of the University Externado (Bogotá, Colombia)). Since 1993, she has worked in the field of human rights with non governmental organizations and with the United Nations (in or about countries such as Haiti, the Democratic Republic of the Congo, Guatemala, Colombia and Uganda). In Colombia, she has done research and consultancies on gender and women's rights for the United Nations High Commissioner for Human Rights and for the Swedish International Development Cooperation Agency (SIDA). She has done consultancy work worldwide on subjects such as human rights information management systems, human rights based approach or program monitoring and evaluation. She is currently the Director of Corporación Punto de Vista and university teacher (specialized in European Human Rights Law and International Criminal Law). She lives in Colombia since 1999.

Tamy Guberek served as the Latin America Coordinator for the Human Rights Program at Benetech between 2004 and 2010. In this role, she led multiple data collection and analysis projects in Colombia and Guatemala. She is currently a candidate for dual M.A. degrees in International and Global History from Columbia University and the London School of Economics.

Amelia Hoover Green is a Consultant to the Human Rights Program at Benetech, and a Ph.D. candidate in Political Science at Yale University. Amelia's political science research focuses on armed group institutions for political education and the dynamics of violence against non-combatants during armed conflict. She was a Jennings Randolph Peace Scholar in 2008-2009 and has conducted field work in El Salvador and Colombia. Amelia has consulted for the HRP and other organizations since 2007. For HRP, in addition to her work on disappearances and sexual violence in Colombia, she has written analyses of political violence in Kosovo and performed statistical analysis for the Truth Commission for Liberia.

Bibliography

- Adhikari, R., Boyd, S., Nepal Institute of Human Rights Communication, & Norway Save the Children (2007). *Sexual violence in the "People's War": the impact of armed conflict on women and girls in Nepal*. Kathmandu: Institution of Human Rights Communication, Nepal. (Nepal), URL <http://www.ihricon.org.np/index1.php?component=publication&pid=14&task=showPublication&id=55>.
- Alvarez, J. (2009). Violencia sexual como arma de guerra también es sufrida por hombres. *El Tiempo*.
- Amnesty International (2004). *Colombia: Scarred bodies, hidden crimes: Sexual violence against women in the armed conflict*. London: Amnesty International, International Secretariat. URL <http://www.amnesty.org/en/library/info/AMR23/040/2004>.
- Amowitz, L. L., Reis, C., Lyons, C. H., Vann, B., Mansaray, B., Akinsulure-Smith, A. M., Taylor, L., & Iacopino, V. (2002). Prevalence of war-related sexual violence and other human rights abuses among internally displaced persons in Sierra Leone. *Journal of the American Medical Association*, 287(4), pp. 513–521.
- Asociación Regional de Mujeres del Oriente Antioqueño, CINEP, & Concudadanía (2009). *Nadie me ha devuelto la niñez que me robaron: violencias sexuales contra mujeres, niñas y niños en el oriente antioqueño*.
- Baaz, M. E. & Stern, M. (2010). The complexity of violence: A critical analysis of sexual violence in the Democratic Republic of Congo (DRC). URL <http://nai.diva-portal.org/smash/get/diva2:319527/FULLTEXT02>.
- Baillargeon, S. & Rivest, L. P. (2007). Rcapture: Loglinear models for Capture-Recapture in R. *Journal of Statistical Software*, 19(5).
- Ball, P. (1996). *Who did what to whom? Planning and implementing a large scale human rights data project*. Washington, DC: American Association for the Advancement of Science. URL <http://shr.aas.org/Ball/cover.htm>.
- Ball, P. (2000). Policy or panic? the flight of ethnic Albanians from Kosovo, March–June 1999. Tech. rep., Washington, DC.
- Ball, P., Asher, J., Sulmont, D., & Manrique, D. (2003). How many Peruvians have died? An estimate of the total number of victims killed or disappeared in the armed internal conflict between 1980 and 2000. AAAS Science and Human Rights Program Report, American Association for the Advancement of Science, Washington, DC. URL http://shr.aas.org/peru/aaas_peru_5.pdf.
- Ball, P., Betts, W., Scheuren, F., Dudukovich, J., & Asher, J. (2002). Killings and refugee flow in Kosovo, March–June 1999. Tech. rep.
- Ball, P., Spierer, H. F., & Spierer, L. (2000). *Making the Case: Investigating Large Scale Human Rights Violations Using Information Systems*. American

- Association for the Advancement of Science. ISBN 087168652X. URL <http://shr.aaas.org/mtc/>.
- Ballesteros, A., Restrepo, J. A., Spagat, M., & Vargas, J. F. (2006). The work of Amnesty International and Human Rights Watch: Evidence from Colombia. *Manuscript on file with authors*. URL http://www.cerac.org.co/pdf/CERAC_WP_4.pdf.
- Bennett, S., Woods, T., Liyanage, W. M., & Smith, D. L. (1991). A simplified general method for cluster-sample surveys of health in developing countries. *World Health Stat Q*, 44(3), pp. 98–106.
- Bhrolcháin, M. N. & Dyson, T. (2007). On causation in demography: Issues and illustrations. *Population and Development Review*, 33(1), pp. 1–36. ISSN 00987921. URL <http://www.jstor.org/stable/25434583>.
- Biemer, P. & Lyberg, L. (2003). *Introduction to Survey Quality*. John Wiley & Sons, Inc.
- Boesten, J. (2010). Analyzing rape regimes at the interface of war and peace in Perú. *International Journal of Transitional Justice*, 4(1), pp. 110–129. doi:10.1093/ijtj/ijp029. <http://ijtj.oxfordjournals.org/cgi/reprint/4/1/110.pdf>, URL <http://ijtj.oxfordjournals.org/cgi/content/abstract/4/1/110>.
- Brass, W. (1975). *Methods of demographic estimation from incomplete data*. Laboratories for Population Statistics. Chapel Hill: University of North Carolina.
- Brownstein, C. A. & Brownstein, J. S. (2008). Estimating excess mortality in post-invasion Iraq. *New England Journal of Medicine*. URL <http://www.nejm.org/doi/full/10.1056/NEJMp0709003>.
- Brunborg, H. (2001). Contribution of statistical analysis to the investigations of the International Criminal Tribunals. *Statistical Journal of the United Nations Economic Commission for Europe*, 18(2/3), pp. 227–238. ISSN 0167-8000 (Print); 1875-9238 (Online).
- Brunborg, H., Lyngstad, T., & Urdal, H. (2003). Accounting for genocide: How many were killed in Srebrenica? *European Journal of Population*, 19, pp. 229–248.
- Brunborg, H. & Urdal, H. (2000). *Report on the number of missing and dead from Srebrenica: expert report prepared for the Krstic case (IT-98-33)*. The Hague: International Criminal Tribunal for the Former Yugoslavia.
- Burke, C. (2004). *Camp All-American, Hanoi Jane, and the High-and-tight*. Beacon Press. ISBN 0807046604, 9780807046609.
- Burnham, G., Lafta, R., Doocy, S., & Roberts, L. (2006). Mortality after the 2003 invasion of Iraq: a cross-sectional cluster sample survey. *The Lancet*, 368(9545), pp. 1421–1428. ISSN 0140-6736.
- Campos, G. G., Borda, O. F., & Luna, E. U. (1962). La violencia en Colombia: Estudio de un proceso social.
- Casa de la Mujer (2010). Violencia sexual en contra de las mujeres en el contexto del conflicto armado colombiano. Tech. rep., Casa de la Mujer/Oxfam Colombia, Bogotá, Colombia. URL http://www.peacewomen.org/assets/file/Recursos/NGO/vaw_primeraencuestadeprevalencia_oxfam_dec2010.pdf.
- Chao, A. (1989). Estimating population size for sparse data in capture-recapture experiments. *Biometrics*, 45(2), pp. 427–438.
- Chao, A., Lee, S., & Jeng, S. (1992). Estimating population size for capture-recapture data when capture probabilities vary by time and individual animal. *Biometrics*, 48, pp. 201–216.
- Cohen, D. K. (2010). *Explaining Sexual Violence during Civil War*. Ph.D. thesis, Department of Political Science, Stanford University.

- Cohen, D. K. & Green, A. H. (2010). Dueling incentives: Sexual violence in Liberia and the politics of human rights advocacy. manuscript under review. URL <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G02/113/17/PDF/G0211317.pdf?OpenElement>.
- Colombian Constitutional Court (2006). Decision C-355/06. URL <http://www.alcaldiabogota.gov.co/sisjur/normas/Norma1.jsp?i=21540>.
- Colombian Constitutional Court (2008). Auto no. 092 de 2008, Protección de los derechos fundamentales de las mujeres víctimas del desplazamiento forzado por causa del conflicto armado, en el marco de la superación del estado de cosas inconstitucional declarado en la Sentencia T-025 de 2004, después de la sesión pública de información técnica realizada el 10 de mayo de 2007 ante la Sala Segunda de Revisión. URL <http://www.acnur.org/biblioteca/pdf/6321.pdf>.
- Comisión Nacional de Reparación y Reconciliación, Grupo de Memoria Histórica (2010). *La masacre de El Salado: una guerra que no es nuestra*. Bogotá, Colombia. URL http://www.cnrr.org.co/new09/semanaM/informe_la_masacre_de_el_salado.pdf.
- Consultoría para los Derechos Humanos y el Desplazamiento (CODHES) & Quijano, A. A. (2010). Las sobrevivientes cuentan: La experiencia de las mujeres en las masacres de Chengue y El Tigre. URL http://www.codhes.org/index.php?option=com_docman&task=doc_details&gid=156&Itemid=50.
- Cook, S. L., Gidycz, C. A., Koss, M. P., & Murphy, M. (2011). Emerging issues in the measurement of rape victimization. *Violence Against Women*, 17(2), p. 201. ISSN 1077-8012.
- Coomaraswamy, R. (2002). *Report of the Special Rapporteur on violence against women, its causes and consequences, submitted in accordance with Commission on Human Rights resolution 2001/49: Addendum, Mission to Colombia (1-7 November 2001)*. E/CN.4/2002/83/Add.3. United Nations.
- Corporación Humanas (2007). *Mujeres entre mafiosos y señores de la guerra: impacto del proceso de desarme, desmovilización y reintegración en la vida y seguridad de las mujeres en comunidades en pugna, Caso de Villavicencio*. Bogotá, Colombia: UNIFEM. URL http://www.humanas.org.co/archivos/Mujeres_entre_mafiosos_y_senores_de_la_guerra.pdf.
- Corporación Humanas (2009a). *Guía para llevar casos de violencia sexual*. Bogotá, Colombia: Ediciones Antropos. URL http://www.humanas.org.co/archivos/Guia_para_llevar_casos_de_violencia_sexual.pdf.
- Corporación Humanas (2009b). *Memorias del Seminario Internacional: Judicialización de casos y reparación a mujeres víctimas de delitos de violencia sexual en el marco del conflicto armado*. Bogotá, Colombia: Ediciones Antropos. URL http://www.humanas.org.co/pagina.php?p_a=6&d=publicaciones-humanas-colombia--centro-regional-de-derechos-humanos-y-justicia-de-genero.
- Corporación Humanas (2009c). *Situación en Colombia de la violencia sexual contra las mujeres*. Bogotá, Colombia: Ediciones Antropos. URL http://www.humanas.org.co/pagina.php?p_a=6&d=publicaciones-humanas-colombia--centro-regional-de-derechos-humanos-y-justicia-de-genero.
- Corporación Sisma Mujer (2005). *Estadísticas de las mujeres colombianas: Estamos frente a una feminización del conflicto?*
- Corporación Sisma Mujer (2008). *Arañando la Justicia: Violencia Sexual e Impunidad en el Conflicto Armado en Colombia*. Bogotá, Colombia. URL <http://www.sismamujer.org/node/46.htm>.
- Corporación Sisma Mujer (2009). *Mujeres en conflicto: Violencia sexual y paramilitarismo*. Bogotá,

- Colombia. URL <http://www.sismamujer.org/node/69.htm>.
- Daponte, B., Kadane, J. B., & Wolfson, L. (1997). Bayesian demography: Projecting the Iraqi Kurdish population, 1977–1990. *Journal of the American Statistical Association*, 92, pp. 1256–1267.
- Darroch, J., Fienberg, S., Glonek, G., & Junker, B. (1993). A three-sample multiple-recapture approach to census population estimation with heterogeneous catchability. *Journal of the American Statistical Association*, 88(423), pp. 1137–1148.
- Defensoría del Pueblo (2008). *Promoción y monitoreo de los derechos sexuales y reproductivos de mujeres víctimas de desplazamiento forzado con énfasis en violencias intrafamiliar y sexual*. Bogotá, Colombia.
- Dunkle, K. L., Jewkes, R. K., Brown, H. C., Gray, G. E., McIntyre, J. A., & Harlow, S. D. (2004a). Gender-based violence, relationship power, and risk of HIV infection in women attending antenatal clinics in South Africa. *The Lancet*, 363(9419), pp. 1415–1421. ISSN 0140-6736.
- Dunkle, K. L., Jewkes, R. K., Brown, H. C., Gray, G. E., McIntyre, J. A., & Harlow, S. D. (2004b). Transactional sex among women in Soweto, South Africa: prevalence, risk factors and association with HIV infection. *Social Science & Medicine*, 59(8), pp. 1581–1592. ISSN 0277-9536.
- Farr, K. (2009). Extreme war rape in today's civil-war-torn states: A contextual and comparative analysis. *Gender Issues*, 26(1), pp. 1–41.
- Fienberg, S., Johnson, M., & Junker, B. (1999). Classical multilevel and Bayesian approaches to population size estimation using multiple lists. *Journal of the Royal Statistical Society*, 162(3), pp. 383–405.
- Fisher, B. S. (2009). The effects of survey question wording on rape estimates. *Violence Against Women*, 15(2), p. 133. ISSN 1077-8012.
- Fisher, B. S. & Cullen, F. T. (2004). Measuring the sexual victimization of women: Evolution, current controversies, and future research. *Criminal Justice* 2000, 4.
- Fisher, B. S., Cullen, F. T., & Turner, M. G. (2000). The sexual victimization of college women. URL <http://www.ncjrs.gov/pdffiles1/nij/182369.pdf>.
- Fisher, B. S., Daigle, L. E., Cullen, F. T., & Turner, M. G. (2003). Reporting sexual victimization to the police and others. *Criminal Justice and Behavior*, 30(1), p. 6. ISSN 0093-8548.
- García-Moreno, C., Heise, L., Jansen, H. A., Ellsberg, M., & Watts, C. (2005). Public health: Violence against women. *Science*, 310(5752), p. 1282.
- Giles, J. (2007). Death toll in Iraq: survey team takes on its critics. *Nature*, 446(7131), pp. 6–7. ISSN 0028-0836.
- Gill, L. (1997). Creating citizens, making men: The military and masculinity in Bolivia. *Cultural Anthropology*, 12(4), pp. 527–550. ISSN 0886-7356. doi:10.1525/can.1997.12.4.527. URL <http://onlinelibrary.wiley.com/doi/10.1525/can.1997.12.4.527/abstract>.
- Goel, S. & Salganik, M. J. (2010). Assessing respondent-driven sampling. *Proceedings of the National Academy of Sciences*, 107, pp. 6743–6747.
- Guha-Sapir, D. & Degomme, O. (2007). *Estimating mortality in civil conflicts: Lessons from Iraq*. Brussels: CRED.
- Guzmán, D., Guberek, T., Hoover, A., & Ball, P. (2007). Missing people in Casanare. HRDAG *White Paper*, pp. 1–21. URL <http://www.hrdag.org>.
- Heuveline, P. (1998). Between one and three million in Cambodia: Toward the demographic reconstruction of a decade of Cambodian history (1970–1980). *Population Studies*, 52(1), pp. 49–65.

- Hodgkin, S. (2008). Telling it all. *Journal of Mixed Methods Research*, 2(4), p. 296. ISSN 1558-6898.
- Human Rights Watch (1996). *Shattered lives: Sexual violence during the Rwandan genocide and its aftermath*. New York: Human Rights Watch. URL <http://www.hrw.org/reports/1996/Rwanda.htm>.
- Human Security Report Project (2011). *Human Security Report 2009/2010: The causes of peace and the shrinking costs of war*. New York: Oxford University Press. URL <http://hsrproject.org>.
- Hynes, M. (2003). Field test of a gender-based violence (GBV) survey in East Timor and Kosovo: Lessons learned. In RHRC Conference. Reproductive Health Response in Conflict Consortium. URL http://www.rhrc.org/resources/general_reports/con03/pdf/michellehynes.pdf.
- INMLCF (2004). Correlación de los hallazgos físicos al examen médico legal y los hallazgos de laboratorio en casos de delitos sexuales en menores de 14 años. *Forensis, Datos para la vida*.
- INMLCF (2008). En busca de soluciones: una perspectiva socio-ecológica sobre la violencia sexual en Colombia. *Forensis, Datos para la vida*.
- INMLCF (2009). *Masatugó: Forensis Mujeres, Herramienta para la interpretación, intervención de lesiones de causa externa en Colombia para las mujeres, 2004–2008*. Instituto Nacional de Medicina Legal y Ciencias Forenses. URL <http://www.medicinalegal.gov.co>.
- Inter-American Commission on Human Rights (2007). *Annual Report of the Inter-American Commission on Human Rights 2007*. OEA/Ser.L/V/II.130. URL <http://www.cidh.oas.org/annualrep/2007eng/TOC.htm>.
- Jansen, H. A. F. M., Watts, C., Ellsberg, M., Heise, L., & Garcia-Moreno, C. (2004). Interviewer training in the WHO multi-country study on women's health and domestic violence. *Violence Against Women*, 10(7), pp. 831–849. doi: 10.1177/1077801204265554. URL <http://vaw.sagepub.com/cgi/content/abstract/10/7/831>.
- Jennings, P. J. & Swiss, S. (2000). Statistical information on violence against women during the Liberian civil war. In *Statistics, Development, and Human Rights: Proceedings of the International Association of Official Statistics*. Montreux, Switzerland.
- Jennings, P. J. & Swiss, S. (2001). Supporting local efforts to document human-rights violations in armed conflict. *Lancet*, 357(9252), p. 302. ISSN 00995355. URL <http://www.womens-rights.org/Publications/Lancet01.html>.
- Johnson, K., Asher, J., Rosborough, S., Raja, A., Panjabi, R., Beadling, C., & Lawry, L. (2008). Association of combatant status and sexual violence with health and mental health outcomes in postconflict Liberia. *JAMA*, 300(6), pp. 676–690. doi:10.1001/jama.300.6.676. URL <http://jama.ama-assn.org/cgi/content/abstract/300/6/676>.
- Johnson, K., Scott, J., Rughita, B., Kisielewski, M., Asher, J., Ong, R., & Lawry, L. (2010). Association of sexual violence and human rights violations with physical and mental health in territories of the eastern Democratic Republic of the Congo. *JAMA*, 304(5), p. 553.
- Kerimova, J., Posner, S. F., Brown, Y. T., Hillis, S., Meikle, S., & Duerr, A. (2003). High prevalence of self-reported forced sexual intercourse among internally displaced women in Azerbaijan. *American Journal of Public Health*, 93(7), pp. 1067–1070. doi:10.2105/AJPH.93.7.1067. URL <http://ajph.aphapublications.org>.
- Kishor, S. (2005). Domestic violence measurement in the demographic and health surveys: *The history and the challenges*. In *Violence against women: A statistical overview, challenges and gaps in data collection and methodology and approaches for*

- overcoming them*, Report / Expert group meeting. New York, NY: United Nations. Division for the Advancement of Women. URL <http://www.un.org/womenwatch/daw/egm/vaw-stat-2005/docs/expert-papers/Kishor.pdf>.
- Koss, M. P. (1993). Detecting the scope of rape: A review of prevalence research methods. *Journal of Interpersonal Violence*, 8(2), pp. 198–222.
- Koss, M. P. (1996). The measurement of rape victimization in crime surveys. *Criminal Justice and Behavior*, 23(1), p. 55. ISSN 0093-8548.
- Leiby, M. L. (2009). Wartime sexual violence in Guatemala and Perú. *International Studies Quarterly*, 53(2), pp. 445–468.
- Londoño, L. & Ramírez Parra, P. (2007). *La dominación de regreso a casa: impacto de la reinserción paramilitar en la seguridad humana de las mujeres. Caso Medellín, Cauca y Urabá*. Medellín, Colombia: Universidad de Antioquia. URL <http://opac.udea.edu.co/cgi-olib/?infile=details.glu&luid=1076679&rs=1873207&hitno=6>.
- Londoño, L. M. & Nieto, Y. (2006). *Mujeres no contadas: Proceso de desmovilización y retorno a la vida civil de mujeres excombatientes en Colombia, 1990-2003*. Medellín, Colombia: La Carretera Social Editores. URL http://mediaresearchhub.ssrc.org/mujeres-no-contadas-proceso-de-desmovilizacion-y-retorno-a-la-vida-civil-de-mujeres-excombatientes-en-colombia-199020102003/resource_view.
- Londoño, L. M. & Ruiz, A. (2010). *Desde diversas orillas, Manual para uso pedagógico*. Universidad de Antioquia. URL <http://idl-bnc.idrc.ca/dspace/handle/10625/45432>.
- Loseke, D. R., Gelles, R. J., & Cavanaugh, M. M. (2005). *Current controversies on family violence*. SAGE. ISBN 9780761921066.
- Lutnick, A. & Cohan, D. (2009). Criminalization, legalization or decriminalization of sex work: what female sex workers say in San Francisco, USA. *Reproductive Health Matters*, 17(34), pp. 38–46. ISSN 0968-8080.
- Marín Correa, A. (2011). Otra violación en Tame (Arauca). *El Espectador*. URL <http://www.elespectador.com/impreso/judicial/articulo-250497-otra-violacion-tame-arauca>.
- Marsh, M., Social Science Research Council, United Nations Population Fund, & World Health Organization (2006). *A technical consultation: Methods and systems for the assessment and monitoring of sexual violence and exploitation in conflict situations*, December 15–16, 2005, New York City. New York: Social Science Research Council. (U.S.), URL <http://www.ssrc.org/publications/view/B69CBFD5-DA59-DE11-BD80-001CC477EC70/>.
- Mazowiecki, T. (1993). Report on the situation of human rights in the territory of the former Yugoslavia. Tech. Rep. E/CN.4/1993/50, United Nations Economic and Social Council, Geneva. URL <http://www.scribd.com/doc/31230414/Tadeusz-Mazowiecki-Report-on-the-Situation-of-Human-Rights-in-the-Territory-of-the-Former-Yugoslavia>.
- Médecins Sans Frontières (2007). *Civilians still the first victims: Permanence of sexual violence and impact of military operations*. Geneva: Médecins Sans Frontières. URL http://www.msf.org/source/countries/africa/drc/2007/Ituri_report.
- Meertens, D. (2000). El futuro nostálgico. *Revista Colombiana de Antropología*, (36), p. 5.
- Mesa de Trabajo Mujer y Conflicto Armado (????). *Informes anuales 2001-2010*. Bogotá, Colombia: Ediciones Antropos. URL <http://www.mujeryconflictoarmado.org/informes.html>.

- Nduna, S. & Goodyear, L. (1997). *Pain too deep for tears: Assessing the prevalence of sexual and gender violence among Burundian refugees in Tanzania*. United States: International Rescue Committee. URL http://www.rescue.org/sites/default/files/migrated/resources/sgbv_1.pdf.
- Ochieng, R. O. (2005). The efforts of non-governmental organizations in assessing and documenting the violations of women's human rights in situations of armed conflict: The Isis-WICCE experience. In *Violence against women: Statistical overview, challenges and gaps in data collection and methodology and approaches for overcoming them*, Report / Expert group meeting. New York, NY.: United Nations Division for the Advancement of Women. URL <http://www.un.org/womenwatch/daw/egm/vaw-stat-2005/docs/expert-papers/Ochieng.pdf>.
- Office of the High Commissioner for Human Rights (OHCHR) (2010). *Report of the United Nations High Commissioner for Human Rights on the situation of human rights in Colombia*. A/HRC/13/72. URL <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G10/118/19/PDF/G1011819.pdf?OpenElement>.
- Office of the Prosecutor (2007). Background: Situation in the Central African Republic. Tech. Rep. ICC-OTP-BN- 20070522-220-A EN, International Criminal Court. URL http://www.icc-cpi.int/NR/rdonlyres/B64950CF-8370-4438-AD7C-0905079D747A/144037/ICCOTPN20070522220_A_EN.pdf.
- Omanyondo, M. (2005). *Sexual gender-based violence and health facility needs assessment: Lofa, Nimba, Grand Gedeh and Grand Bassa counties, Liberia*. World Health Organization.
- Otero, S., Quintero, V., & Bolívar, I. J. (2009). Las barreras invisibles del registro de la violencia sexual en el conflicto armado colombiano. *Forensis: Datos para la vida* 2009, pp. 334–354.
- Oxfam Colombia (2009). *La violencia sexual en Colombia: Un arma de guerra*. URL <http://www.colombiassh.org/site/spip.php?article468>.
- Paras, M. L., Murad, M. H., Chen, L. P., Goranson, E. N., Sattler, A. L., Colbenson, K. M., Elamin, M. B., Seime, R. J., Prokop, L. J., & Zirakzadeh, A. (2009). Sexual abuse and lifetime diagnosis of somatic disorders: A systematic review and meta-analysis. *JAMA*, 302(5), pp. 550–561.
- Physicians for Human Rights, with the support of the United Nations Assistance Mission in Sierra Leone (2000). *War-related sexual violence in Sierra Leone: A population-based assessment*. Tech. rep. URL <http://physiciansforhumanrights.org/library/report-sierraleone-2000.html>.
- Potter, J. E. & Ordoñez, G. M. (1976). The completeness of enumeration in the 1973 census of the population of Colombia. *Population index*, pp. 377–403. ISSN 0032-4701.
- Pratt, M. & Weichick, L. (2004). *Sexual terrorism: Rape as a weapon of war in eastern Democratic Republic of Congo*. Tech. rep., USAID/DCHA. URL http://www.reformedelapnc.org/documents/Rape-in-DRC_Final-Report.pdf.
- Price, M. & Guzmán, D. (2010). Comments to the article 'Is violence against unions members in Colombia systematic and targeted?'. URL <http://www.hrdag.org/resources/publications/Co-union-violence-paper-response.pdf>.
- Reed Hurtado, M. (2010). *Transiciones en contienda: disyuntivas de la justicia transicional en Colombia desde la experiencia comparada*, chap. Justicia transicional bajo fuego: cinco reflexiones marginales sobre el caso colombiano. International Center for Transitional Justice. URL <http://www.ictj.org/images/content/2/3/2398.pdf>.
- Roberts, L., Lafta, R., Garfield, R., Khudhairi, J., & Burnham, G. (2004). *Mortality before and after*

- the 2003 invasion of Iraq: Cluster sample survey. *The Lancet*, 364(9448), pp. 1857–1864. ISSN 0140-6736.
- Schwartz, M. D. (2000). Methodological issues in the use of survey data for measuring and characterizing violence against women. *Violence Against Women*, 6(8), p. 815. ISSN 1077-8012.
- Secretaría Distrital de Salud de Bogotá & Fondo de Población de Naciones Unidas (2008). *Protocolo para el abordaje integral de la violencia sexual desde el sector salud*. Bogotá, Colombia.
- Sekar, C. C. & Deming, E. W. (1949). On a method of estimating birth and death rates and the extent of registration. *Journal of the American Statistical Association*, 44(245), pp. 101–115. URL <http://www.jstor.org/stable/2280353>.
- Silva, R. (2002). On the maintenance and measurement of inter-rater reliability when documenting large-scale human rights violations. In *Proceedings of the Joint Statistical Meetings*.
- Silva, R. & Ball, P. (2007). The demography of conflict-related mortality in Timor-Leste (1974–1999): Reflections on empirical quantitative measurement of civilian killings, disappearances, and famine-related deaths. *Chapter 6 of Statistical Methods for Human Rights*, eds. Asher, Banks, Scheuren, pp. 1–23.
- Silva, R., Klingner, J., & Weikart, S. (2010). State-coordinated violence in Chad under Hissène Habré: A statistical analysis of reported prison mortality in Chad's DDS prisons and command responsibility of Hissène Habré, 1982–1990. A report by Benetech's Human Rights Data Analysis Group to Human Rights Watch and the Chadian Association of Victims of Political Repression and Crimes. URL <http://www.hrdag.org/about/downloads/State-Violence-in-Chad.pdf>.
- Silva, R., Marwaha, J., & Klingner, J. (2009). Violent deaths and enforced disappearances during the counterinsurgency in Punjab, India: A preliminary quantitative analysis. URL <http://www.hrdag.org/about/india-punjab.shtml>.
- Sivakumaran, S. (2007). Sexual violence against men in armed conflict. *European Journal of International Law*, 18(2), p. 253. ISSN 0938-5428.
- Smith, A. (2006). *Sexual violence in conflict: Making data work for change: Discussion paper*. Geneva: Geneva Centre for the Democratic Control of Armed Forces (DCAF).
- Social Science Research Council (2005). A technical consultation: Methods and systems for the assessment and monitoring of sexual violence and exploitation in conflict situations. New York.
- Stark, L., Roberts, L., Wheaton, W., Acham, A., Boothby, N., & Ager, A. (2010). Measuring violence against women amidst war and displacement in northern Uganda using the 'neighborhood method'. *Journal of Epidemiology and Community Health*. [Epub ahead of print], URL <http://www.forcedmigration.columbia.edu/research/documents/tarkRobertsAchamBoothbyAger2009MeasuringVioAgainstWomenJEpidemiolCommunityHealth.pdf>.
- Staveteig, S. (2010). Marital dynamics in the wake of ethnic cleansing: Evidence from Bosnia and Rwanda. In *Proceedings of the Annual Meeting of the Population Association of America Conference, 2010. Dallas, Texas*.
- Steven K. Thompson and George A.F. Seber (1996). *Adaptive Sampling*. New York: John Wiley and Sons, Inc.
- Swiss, S. & Giller, J. E. (1993). Rape as a crime of war. A medical perspective. *Journal of the American Medical Association*, 270(5), pp. 612–615.
- Swiss, S. & Jennings, P. J. (2006). *Documenting the impact of conflict on women living in internally displaced persons camps in Sri Lanka: Some ethical*

- considerations*. Albuquerque, New Mexico: Womens Rights International. URL http://www.womens-rights.org/Publications/Ethics_IDPSurvey.pdf.
- Swiss, S., Jennings, P. J., Aryee, G. V., Brown, G. H., Jappah-Samukai, R. M., Kamara, M. S., Schaack, R. D., & Turay-Kanneh, R. S. (1998). Violence against women during the Liberian civil conflict. *Journal of the American Medical Association*, 279, pp. 625–629.
- Tabeau, E. & Bijak, J. (2005). War-related deaths in the 1992–1995 armed conflicts in Bosnia and Herzegovina: A critique of previous estimates and recent results. *European Journal of Population / Revue Européenne de Démographie*, 21(2/3), pp. 187–215. ISSN 01686577. URL <http://www.jstor.org/stable/20164302>.
- Tabeau, E., Zoltkowski, M., & Bijak, J. (2002). *Population losses in the siege of Sarajevo, September 10, 1992 to August 10, 1994: expert report prepared for the Galic case (IT-98-29-I)*. The Hague. Published: International Criminal Tribunal for the Former Yugoslavia.
- Testa, M., VanZile-Tamsen, C., Livingston, J. A., & Koss, M. P. (2004). Assessing women's experiences of sexual aggression using the sexual experiences survey: Evidence for validity and implications for research. *Psychology of Women Quarterly*, 28(3), pp. 256–265. ISSN 1471-6402.
- The Reproductive Health Response in Crises Consortium & International Rescue Committee (2003). A determination of the prevalence of gender-based violence among conflict-affected populations in East Timor.
- United Nations (1998). Rome Statute of the International Criminal Court (English). pp. 1–88. URL <http://untreaty.un.org/cod/icc/index.html>.
- United Nations Country Team in Colombia (2005). Colombia report, March 2005. URL <http://www.reliefweb.int/rw/RWB.NSF/db900SID/HMYT-6CPM4Z?OpenDocument>.
- United Nations Development Program (2000). Desarrollo humano: Colombia 2000. URL http://hdr.undp.org/xmlsearch/reportSearch?y=2000&c=n%3AColombia&t=*&lang=en&k=&orderby=year.
- United Nations Division for the Advancement of Women, United Nations Economic Commission for Europe, & World Health Organization (2005). *Violence against women: A statistical overview, challenges and gaps in data collection, and methodology and approaches for overcoming them*. Report / Expert group meeting. New York, NY.: United Nations. Division for the Advancement of Women. URL <http://www.un.org/womenwatch/daw/egm/vaw-stat-2005/>.
- United Nations Security Council (2000). Resolution 1325. URL http://www.unfpa.org/women/docs/res_1325e.pdf.
- United Nations Security Council (2008). Resolution 1820. URL <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N08/391/44/PDF/N0839144.pdf?OpenElement>.
- United Nations Security Council (2009). Resolution 1889. URL <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N09/542/55/PDF/N0954255.pdf?OpenElement>.
- Urdinola, P. (2004). Could political violence affect infant mortality? The Colombian case. In *Proceedings of the Population Association of America 2004 Annual Meeting Program*. Boston, MA.
- Uribe, M. V. (1990). Matar, rematar y contramatar. Las masacres de la Violencia en el Tolima, 1948–1964. CINEP. Urrego Mendoza, Z. (2007). Las invisibles: Una lectura desde la salud pública sobre la violencia sexual contra niñas y mujeres colombianas en la actualidad. *Revista Colombiana de Obstétrica y Ginecología*, 58(1), pp. 38–44.

- Utas, M. (2005). Victimcy, girlfriending, soldiering. *Anthropological Quarterly*, 78, pp. 403–430.
- Villegas, V. E., Constatín, A. E., Barreto, M. R., Orjuela, C. E., Fontanilla, G. A., & Hernández, H. W. (2003). El devenir de normas y valores tradicionales sobre la sexualidad en Colombia. *Forensis*.
- Vinck, P., Pham, P., Baldo, S., & Shigekane, R. (2008). *Living with fear: A population-based survey on attitudes about peace, justice, and social reconstruction in eastern Democratic Republic of Congo*. Berkeley-Tulane Initiative on Vulnerable Populations. URL <http://escholarship.org/uc/item/9738b4pm>.
- Vivanco, J. M. (2007). Human Rights Watch response to CERAC charges about our Colombia work. URL http://www.hrw.org/sites/default/files/related_material/spagat_response.pdf.
- Wakabi, W. (2008). Sexual violence increasing in Democratic Republic of Congo. *Lancet*, 371(9606), pp. 15–16.
- Watchlist on Children and Armed Conflict (2004). Colombia's war on children. URL <http://www.watchlist.org/reports/pdf/colombia.report.pdf>.
- Women's Wellness Center & Reproductive Health Response in Conflict (2006). Prevalence of gender-based violence: Preliminary findings from a field assessment in nine villages in the Peja region, Kosovo, december 2006. URL http://www.rhrc.org/resources/Kosovo_report_FINAL_RHRC_6-11-08.pdf.
- Wood, E. (2009). Armed groups and sexual violence: When is wartime rape rare? *Politics and Society*, 37(1), pp. 131–161.
- World Health Organization (2010). *Preventing intimate partner and sexual violence against women: Taking action and generating evidence*. Geneva: World Health Organization. ISBN 9789241564007. URL http://whqlibdoc.who.int/publications/2010/9789241564007_eng.pdf.

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After discussing in depth the difficulties faced by researchers attempting to measure sexual violence around the world, the report addresses several Colombian data collection efforts more specifically. Both governmental and non-governmental data sources are considered; more importantly, the authors outline several key cultural and political issues affecting sexual violence data collection in Colombia. In particular, the research team found, responses to sexual violence in Colombia are fragmented and incomplete. Sexual violence is frequently viewed as a domestic violence or criminal justice issue; it is seldom considered as a phenomenon in its own right, or as an outcome associated with armed conflict.

The authors also make several key methodological claims. Initially (with funding from the Open Society Institute [OSI]), the Colombian non-governmental organization (NGO) Corporación Punto de Vista (CPdV) formed a partnership with an American technical advisory NGO, the Benetech Human Rights Project (HRP), in order to explore the possibility of using indirect data to better understand conflict-related sexual violence in Colombia. However, the research team concluded that it was necessary also to address broader, more fundamental questions surrounding the use of information on sexual violence.