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Institute of Public Health
Public Health Thesis

Georgia State University Year 2011

Public Health Implications of Mass Rape as a Weapon of War

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APPROVAL

Public Health Implications of Mass Rape as a Weapon of War

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ABSTRACT

Although rape and other forms of sexual violence have historically been present during wartime, it has recently become a strategic weapon of war in many settings. The term *mass rape as a weapon of war* is defined as a systematic pattern of rape perpetrated by fighters usually against civilian women and children at a rate much higher than the rate of rape prevailing during peacetime. This study will examine issues surrounding mass rape as a weapon of war including: emerging theories, effectiveness of current international law, public health consequences, and relevant indicators of likelihood of occurrence. Grave physical and mental health outcomes associated with mass rape highlight the need for intervention through policy and program planning. The proposed multi-dimensional prevention pathway addresses the ecological determinants of mass rape.

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ABBREVIATIONS

AIDS: Acquired Immune Deficiency Syndrome
DRC: Democratic Republic of Congo
FGM: Female Genital Mutilation
HIV: Human Immunodeficiency Virus
HTQ: Harvard Trauma Questionnaire
HSCL: Hopkins Symptom Checklist
ICTR: International Criminal Tribunals for Rwanda
ICTY: International Criminal Tribunals for the Former Yugoslavia
IDP: Internally Displaced Person
IRC: International Red Cross
MDD: Major Depressive Disorder
NGO: Non-Governmental Organization
PHR: Physicians for Human Rights
PSSI: PTSD Symptom Scale Interview
PTSD: Post-Traumatic Stress Disorder
STD: Sexual Transmitted Disease
TRC: Truth and Reconciliation Commission
UNAID: Joint United Nations Programme on HIV/AIDS
UNDP: United Nations Development Programme
UNHCR: United Nations High Commission on Refugees
UNICEF: United Nations International Children's Emergency Fund
WHO: World Health Organization

I
Introduction

Background

The use of rape as a weapon of war has occurred throughout history but only in the later part of the twentieth century has it been explicitly punishable under international law. As the nature of wars has changed and civilian populations have increasingly become targets in armed conflicts, rape, sexual violence, and sexual slavery have become deliberate and systematic components of war strategies. Sexual violence primarily targets women and girls, whose rights are often ignored in many parts of the world. The health implications associated with mass rape affect not only the individual, but also the family and the community. Family and community members often are forced to watch as loved ones are brutally violated. Rape has grave physical consequences including injury to body parts and organs, unwanted pregnancy, contraction of HIV and STDs, and death. The mental ramifications which often go unrecognized include loss of dignity, depression, loss of family and community support, isolation and shunning.

Ongoing regional insecurity, cultural behaviors, and methodological complexities of conducting a systemic population based survey make it impossible to obtain quantitative estimates of the incidence of attacks. Interventions have not been organized to deal with instances of mass rape and only minimal treatment is made available by NGOs whose presence is dependent on the powers in charge of the area. The international community has reluctant to bring to justice the persons responsible for such crimes.

Purpose of the Study

The purpose of this study is to understand the circumstances under which mass rape is likely to occur; to investigate the public health implications of mass rape as a weapon of war; to evaluate the effectiveness of current international laws related to the use of rape as a weapon of war. Recognition of the public health implications of mass rape could provide the political will necessary for prevention and concerted treatment of sexual violence during armed conflict. Based on analysis of the above factors, recommendations will be made for prevention methods to reduce rape during conflict.

Methodology

This paper reviewed and synthesized published and unpublished literature on the mass rape as a weapon of war, with a particular focus on theory, law, and public health implications. We searched PubMed, Google Scholar, and LexusNexus using a combination of one or more of the following terms: “mass rape”, “sexual violence", “war”, “armed conflict”, “conflict”, “law”, “theory”, “HIV”, and “FGM”. When information on a specific country was sought, the country name was combined with one or more of the search terms. No time limitation was included in our search.

II
Defining Mass Rape

The International Criminal Tribunals for Rwanda and Yugoslavia defined rape as "a physical invasion of a sexual nature, committed on a person under circumstances which are coercive," and "sexual violence" as "any act of a sexual nature which is committed on a person under circumstances which are coercive… not limited to physical invasion of the human body, and may include acts which do not involve penetration or even physical contact."[1] Rape includes providing sex to avoid harm and obtain basic necessities.[2]

The term *mass rape as a weapon of war* does not refer to isolated incidents of rape by individual fighters. Instead, the term is used to indicate systematic patterns of rape by soldiers at a rate much higher than the rate of rape that prevails during peacetime.[3] Furthermore, the term mass rape is often used interchangeably with the terms sexual or gender violence to include acts such as rape, forced prostitution, sexual slavery, and sex trafficking.[4] Because rape during war is mainly perpetrated against women and girls, this paper will predominantly reference this group as the victim. However, it is important to keep in mind that the victims of mass rape in times of conflict include pregnant women, infants, elderly women, men, boys, fleeing refugees, and the internally displaced.

Rape and other forms of sexual violence have always been present during wartimes as evidenced by mentions in the bible, ancient writings, and mythology. However, it only recently received attention from the international community in an attempt to codify it as a specific crime. During World War II, incidents of rape were documented about most parties and especially against Japan and Russian forces reported

to have raped women under inhumane circumstances. Despite the international community's effort to codify and penalize the use of rape in wars, mass rape continues to occur in many parts of the world including in Africa, Eastern Europe, Asia and Latin America. [4] Table 1 lists the countries in which mass sexual violence has recently been part of an armed conflict.

TABLE 1: LOCATIONS OF MASS RAPES IN RECENT CONFLICTS

Sub-Saharan Africa	Asia	Americas (Central/South)	Europe	Middle-East & North Africa
Burundi Chad Congo (Zaire) Cote D'Ivoire Liberia Mozambique Rwanda Sierra Leone Somalia Sudan Uganda Zimbabwe	Afghanistan Bangladesh Myanmar Cambodia East Timor India Indonesia Pakistan Sri Lanka Vietnam	Argentina Brazil El Salvador Guatemala Nicaragua Peru Haiti*	Bosnia Chechnya Croatia Cyprus Kosovo Serbia Turkey	Algeria Kuwait

*Considered part of North America

The prevalence of rape during conflict is uncertain because there is no international detection or reporting system in place. Much of the data come from Non-governmental groups (NGOs) that are limited by resource and access. For example, the International Red Cross (IRC) estimated that for every 1 rape that is reported 30 go unreported in the conflict that occurred in the Democratic Republic of Congo.[4] Although circumstances on the ground lead to underreporting of incidence, recent conflicts have witnessed unprecedented levels of systematic sexual violence as depicted in Table 2.

TABLE 2: PREVALENCE OF RAPE IN RECENT CONFLICTS

Uganda (1980-1986)	• 70% of women in the Luwero District reported being raped by soldiers. A large proportion of the survivors were assaulted by as many as 10 soldiers in a single episode of gang rape.
Liberia (1989-1994)	• 15% of women interviewed reported being the victim of rape, attempted rape or sexual coercion. • A World Health Organization study found 33% of women reported rapes. More than one attacker was present in over half of the incidents, and weapons were used in the great majority (90%).
Rwanda (1994)	• Overall estimates on the number of rapes range from 15,700 (Rwandan Government) to 500,000 (UN Special Representative). These rapes were committed in less than 100 days. • In April 2004, a local organization, Widows of the Genocide, polled and tested 1,200 of its 25,000 members and found that 80% had been raped and 66% were HIV-positive.
Sierra Leone (1991-1999)	• In a Physicians for Human Rights (PHR) survey, 13% of households reported some form of war related sexual violence. The prevalence rate during the ten-year civil war was equal to the lifetime prevalence of non war-related sexual violence among the study participants. • 53% of respondents in the PHR study who had "face to face" contact with the rebel forces experienced some form of sexual violence. 33% of the rape victims were gang raped.
D. R. Congo (1998-2003)	• Human Rights Watch estimates that as many as 33% of the women in the country were raped, including up to 80% in any given community. • The International Rescue Committee (IRC) estimates that for every rape reported, 30 are not.
Bosnia (1992-1995)	• While the figures are in dispute, it is estimated that between 20,000 and 50,000 women were raped, most of them Muslims. • NGOs have alleged that more than 35,000 women and children were held in Serb-run rape/death camps, where women 10-30 years of age were raped daily by 40-50 men.
Kosovo (1999)	• In some villages in Kosovo, 30-50% of women of child-bearing age were raped by Serbian forces.

Note: From "The use of rape as a weapon of war in the conflict in Darfur, Sudan" Program on Humanitarian Crises and Human Rights, François-Xavier Bagnoud Center for Health and Human Rights, P 7.

In these and other conflicts settings, enemy forces invaded the community, killing the men on spot, and raping the women and girls often in front of their family and community members. Women and girls are often gang raped, mutilated, and sometimes

killed. At times however they fled to neighboring communities carrying with them stories of horrible acts which empowered the enemy's campaign of fear and terror.

III
Theories of Mass Rape

Understanding why mass rape occurs during armed conflict is important for prevention and intervention. In the past, mass rape was perceived as a reward or spoil of war, as a means of boosting the morale of troops, or as punishment of the enemy. As warfare has changed and the use of rape has become more systematic and purposeful, several theories have surfaced to explain the occurrence of this phenomenon.[4] Geographic, cultural, religious, political, legal, and behavioral factors affect the likelihood of the systematic use of rape in conflict. [2]

Feminist Theory: One theory proposed to explain the use of mass rape is the "global feminist" view. Feminist activists, scholars and journalists have been credited for bring the issue of mass rape to the world's attention. The feminist view is that mass rape occurs because of man's desire to exert dominance over woman and that the woman body is another territory or property to be gained from the enemy. Historically, many of the communities in which mass rape has occurred have been communities that base high value on honor, virginity, chastity, marriage and kinship. [4]

Cultural Pathology Theory: This theory is based on cultural psychoanalysis and examination of historical and sociocultural factors to understand the occurrence of rape during conflict. (Barstow 2007) suggests that high level militarization of Japanese education and society, brutality of military culture, change in perception of the Chinese from admiration to degradation, and entrenched disrespect for women combined to result

in the Japanese rape of Nanking. [5] Mackinnon (1994) indicates that widespread availability and acceptance of pornography prior to war was associated with Serb rapes of Muslim and Croat women because it allowed for dehumanization of women. [4, 96]

Genocidal Rape Theory: The "genocidal rape" view, which proposes that mass rape intended to dilute the blood line is a form of genocide defined as "the deliberate and systematic destruction, in whole or in part, of an ethnic, racial, religious, or national group". [3] If the aim of a conflict is ethnic destruction, rape pollutes the ethnic or tribal line, weakening marital and communal relationships for decades. [4] Mass rape violates not only a woman's honor but also diminishes the power of the men in the community as they are forced to flee for fear of being killed. Mass rape undermines important values held by the victimized community inflicting long term physical and psychological harm. Rape in conflict serves dual purpose of demonstrating one side's dehumanization of the other and diluting an entire ethnic group. [6]

Strategic Rape Theory: The strategic rape theory suggests that mass rape has become another war strategy and seems to currently be the most influential theory. Rape during war creates fear, shame and demoralization not only to the individual but also the family and community at large. In this sense, it serves a purpose beyond the expected and known threat of death. Although not clear to what extent it is ordered by authority, the strategic use of rape has been understood and implemented in recent conflicts where the availability of weapons and other resources may be limited. [6] Where the aim of a conflict is to extend territory and resources, the fear of mass rape serves to evacuate community members and disable their ability to reunite and return to fight.

Proponents of strategic rape theory argue that wartime rapists do not rape because they hate the victims as suggested by the genocidal rape theory but rather to make the victims hate them enough not to want to return. In essence, mass rape becomes a form of communication using the woman's body to send a message to the community or the men on the opposing side of the conflict that life together or coexistence is no longer possible. This form of communication is only necessary where territorial boundaries have not been put in place and are still being contested. Mass rape ensures that the victims if still alive after the conflict ends will not return to the territory where the rape occurred and the enemy will easily claim the land, such would be the case in Yugoslavia. Mass rape occurred in Yugoslav at a time when the state as previously known was fading and the questions of whose state it was and which population will remain in it were to be defined. Mass rape has also become a rationalized war strategy similar to other forms of targeted violence such as sniping or bombing. [3]

Some commentators have compared instances of when rape is intentionally avoided as opposed to when it occurs to understand the circumstances under which it is likely to occur. When partition of the territory and population is an objective, mass rape ensures this goal even more than murder. Hayden (2010) highlights the use of war in Bosnia in 1992-1995 and in Punjab, India in 1947 as examples of using mass rape when the objective was the partitioning of territory and population. In Bosnia, it is estimated that between 20,000 and 50,000 women were raped, most of them Muslims. In Punjab conflict of 1947, thousands of women on both sides of the conflict where abducted, raped, forced to convert, forced into marriage. It is estimated that 25,000 to 29,000 Hindu and Sikh and 12,000 to 15,000 Muslim women were victimized. In comparison, in

the armed conflict that occurred in Dehli in 1985 and Hyderabad in 1990, Hayden suggests that rape was intentionally avoided because partition was not an issue or a desired result. [3]

In Dehli and Hyderabad, the leaders of opposing sides continued to communicate with each other and ruled some actions as unacceptable. Whereas in Rwanda and other places were mass rape occurred these was a one sided anything-goes communication to subordinates. Hayden suggests the understanding that mass rape makes co-existence impossible should alert us of the situations that make mass sexual violence acceptable and therefore likely. He argues that when partition of not only the territory but of population is sought, rape becomes a powerful weapon even more so than killing to bring about that result. [3]

All of the above theories agree that rape is not incidental but functional; they deny that sexual desire is a factor in the perpetrator's decision to rape; and they are rooted in socio-cultural and not biological factors, meaning that the size, strength or nature of human sex organs do not explain this phenomena. By contrast, the biosocial theory alleges that wartime rape is an inevitable, genetically determined reflex. In fact this theory proposes that men have instincts of sexual aggression which are controlled under normal circumstances but which they lose control over during extreme times of chaos. [6] This theory implies a perilous assertion that the aggressors' behavior is beyond their control.

Understanding the circumstances under which mass rape is likely to occur is important for anticipating the event and implementing appropriate prevention or intervention methods. Mass rape is less likely to occur where formal military structures

are intact on both sides of the conflict; rather it is more likely when one or more of the following conditions exist:

- There is entrenched disrespect for women and widespread violation of women's rights.
- There is a prevalence of widespread loathing of an ethnic group;
- The separation between civilian and fighter has collapsed;
- The state as known is evaporating and there is a question as to how the territory or population is to be defined;
- The conflict is taking place in an area that is geographically remote and isolated from the international community and the media. [4]

Although the literature available on theories seems to promote one viewpoint over another to explain mass rape, it may be that one theory alone cannot explain an incidence of mass rape let alone all incidents.

IV
Legal Analysis

For centuries, rape by soldiers has been prohibited and subject to capital punishment under laws of war including those of Richard II (1385) and Henry V (1419). [7] In 1863, the Lieber Code written during the US Civil War as rules of engagement for soldiers and commanders contained prohibitions of rape in war as a capital crime. [8] The Hague Conventions of 1907 coined the term "crimes against humanity" which was vague and subject to varied interpretation. [9] Subsequently the international community has been making attempts to criminalize rape through statutory and case law.

Express codification of rape as a human rights violation and crime in major international legal documents began after crimes of sexual violence were committed during World War II. Most of the documented evidence on sexual violence came from the brutalities committed by Japanese and Russian forces against civilian populations. In both cases, women of the occupied cities were systematically raped, physically scarred and mutilated, often in front of family. [4] Approximately 20,000 women were believed to have been raped in only the first month of the Japanese occupation of Nanking (Nanjing), the former capital of the Republic of China in 1937.[10] In addition, an estimated 200,000 mostly Korean and Taiwanese women were kept as sex slaves for the use of Japanese forces during WWII. [11]

In 1945 with the end of WWII, the International Military Tribunals for Germany and Japan defined "crimes against humanity" as including "murder, extermination, enslavement, deportation, *or other inhumane acts committed against any civilian population*". [1] The Tribunal charters again contained an all inclusive vague terminology affording future flexibility to capture a range of criminal acts that would otherwise be excluded from the definition of "crimes against humanity". In December 1945, the Allied Control Council established Law No.10 declaring that "crimes against humanity" included rape. Despite this declaration and evidence to sexual violence, the Nuremburg trials did not result in any convictions for sex or gender related crimes and the Tokyo trials resulted in the conviction of three individuals for crimes of rape.[11] The crimes against humanity section has been held to require evidence of systematic government planning as a necessary element; hence the difficulty of persecuting rape under this provision. [12]

The Fourth Geneva Convention of 1949 allows for the prosecution of persons committing or ordering to be committed grave breaches of the Geneva Conventions. The parts arguably applying to rape are sub-sections on: "torture or inhuman treatment", and "willfully causing great suffering or serious injury to the body or health." Article 27 of the Convention states "women shall be especially protected against any attack on their honour, in particular against rape, enforced prostitution, or any form of indecent assault" during times of war. In addition, the First and Second additional Protocols to the Geneva Conventions, which respectively apply to international and non-international armed conflicts, included similar sections. [13] However, both the Fourth Geneva Convention and the additional protocols fell short of listing rape among the grave breaches subject to universal jurisdiction. [12]

Pursuant to Article 2 of the 1948 Convention on the Prevention and Punishment of the Crime of Genocide, "genocide" is defined as any of the following acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such:

> (a) Killing members of the group;
> (b) Causing serious bodily or mental harm to members of the group;
> (c) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part;
> (d) Imposing measures intended to prevent births within the group;
> (e) Forcibly transferring children of the group to another group.

Article 3 the convention extends punishment not only to those that actually commit the act of genocide but also to anyone who conspires, incites, attempts or is complicit to the act. [14]

Application of the above conventions to sexual violence was tested in the 1990s after armed conflict erupted in Yugoslavia and later Rwanda. These two events presented

high incidence, systematic and strategic use of rape in conflict. The United Nations established the International Criminal Tribunals for the Former Yugoslavia (ICTY) and later for Rwanda (ICTR). Evidence from Yugoslavia and Rwanda showed that rape was not used merely as a spoil of war but it was a strategic part of the conflict used to instill terror, to dilute a culture through impregnation, and to torture and dehumanize. Rape, which often occurred in the presence of others, in concurrence with mutilation and murder, played a systematic role in ethnic cleansing. [15] The tribunals issued landmark convictions on rape and other sexual crimes as inclusive in the definitions of genocide, crimes against humanity and torture. [4]

The unprecedented decisions of the ICTY and the ICTR further defined rape as an act of genocide and a crime under the Convention Against Torture and other Cruel, Inhuman or Degrading Treatment or Punishment of 1984 (herein after the Torture Convention). In the case of *Akayesu,* the ICTR held that systematic and widespread rape with the intent to destroy a particular group fell within the statutory definition of "genocide" pursuant to Article 2 of the 1948 Convention on the Prevention and Punishment of the Crime of Genocide and constituted crimes against humanity under the Hague Convention of 1907. In this case the defendant was accused of witnessing and encouraging rapes and the sexual mutilation of Tutsi women as part of the genocidal campaign against the ethnic group. [16]

In the case of *Koradzic* and the case of *Maldic*, the ICTY found the defendants guilty of genocide based on rape and sexual violence committed by their subordinates. [17, 18] In the case of *Dilalic*, the ICTY also found leading officials guilty under the Torture Convention for mass rape committed in the Celebici concentration camp. [19] In

the *Furudzija* case, the ICTY extended the accused who interrogated a woman while another accused was raping her guilty under the torture convention for complicity. [20] In the case of *Kunarac*, the ICTY found sexual slavery as a crime against humanity. [11]

In 2002, the Rome Statute of the International Criminal Court included gender violence as a crime against humanity and a war crime. Gender violence is defined as rape, forced pregnancy, enforced prostitution, sexual slavery, sex traffic, and enforced sterilization. [21]

At the end of the civil war in Sierra Leone in 2002, two transition justice instruments to deal with the atrocities committed during the conflict were established: the Truth and Reconciliation Commission (TRC) and the Special Court for Sierra Leone. [22] The TRC modeled after the Truth Commission in South Africa was intended to promote truth-telling and to "address impunity, to respond to the needs of the victims, to promote healing and reconciliation and to prevent a repetition of the violations and abuses suffered." [23] The TRC was mandated to address sexual crimes seriously, provide gender violence training for commissioners and staff, create an enabling environment at the TRC for rape victims, provide outreach to women's organizations, dedicate special hearing on women and a section on women in the final TRC report. The Special Court on the other hand was mandated to prosecute crimes against humanity, war crimes, and other serious violations of international humanitarian law. The Special Court was created to prosecute those with greatest responsibility for crimes committed during the war. Unlike the tribunals of the former Yugoslavia and Rwanda, the Special Court was based on a treaty between the U.N. and the Sierra Leonean government, which had its advantages and disadvantages. It consisted of both international and national staff

members supposedly making it more accessible and acceptable to locals, but could not mandate the handover of accused individuals located in other states. Also unlike ICTY and ICTR, the prosecutorial team had members dedicated solely to sexual crimes. [22]

As noted above, rape and sexual assault during war can be prosecuted under different international laws each with its own complex evidentiary requirements. For the most part, the international community and lawyers have paid little attention to rape and other types of sexual assault, leaving arrest and persecution of such crimes to the often corrupt or dysfunctional criminal justice system of the country in which the offense allegedly took place. The application of international law to internal conflicts is limited except in the case of crimes considered "crimes against humanity" and "genocide", and where the conflict is found to be a genuine civil war. Under the torture convention however a single act is sufficient for prosecution and does not require the demonstration of a pattern nor for the act to be committed in the context of an international armed conflict. [24]

Criminal responsibility for rape and other sexual violence has been found in both the perpetrators and their superiors. Individual criminal responsibility is found in the person who "planned, instigated, ordered, committed or otherwise aided or abated in the planning, preparation or execution" of crimes of sexual violence. [24] Concept of command responsibility holds a superior responsible for the criminal actions of a subordinate when he "*knew or had reason to know"* that the subordinate was about to commit such acts or had done so and the superior failed to take the necessary and responsible measures to prevent such acts or to punish the perpetrators thereof. [25, 26] The notion of extending responsibility to political and military command structure for

both setting policy and omitting to act was introduced in the trials of the Nuremberg and Tokyo tribunals following WWII. [24] Command responsibility is important due to the limited resource and will of the international community to prosecute rank and file perpetrators

To date, the vast majority of rank-and-file perpetrators of rape during war have not been held accountable. In post-war tribunals, justice for sexual violence remains the exception rather than the rule. Yet, some have argued that rape and other types of sexual assault should not be viewed as specifically gender-based offenses but as crimes of violence of a sexual nature. This approach would eliminate differences in prosecution of rapes perpetrated against male or female victims and ensure that crimes of violence of sexual nature are adjudicated in a fierce and unequivocal manner like any other crimes of violence committed during times of war. [24]

In the few instances where the international community has taken action, it has been reactive and has not gone far enough in penalizing to deter the use of sexual violence in conflicts. Sexual violence in general has not been criminalized due to cultural and social norms still prevalent in many parts of the world. Many nations still allow sexual violence, domestic violence, honor killings and other gender related crimes to occur because of social or religious beliefs held by the society. Women’s rights are not recognized and women continue to be perceived as the property of men. Victims are reluctant to report rapes due to stigma, fear and lack of support in the legal system.

The international community in attempting to prosecute crimes of sexual violence is often simultaneously trying to bring about reconciliation for the same crimes and some would argue there is an inherent conflict in the two processes. [4] Criminal law systems

are intended not only to punish in retribution but also to deter future similar acts by the same individual or others. The international community has failed to accomplish both purposes in regards to sexual violence during conflict. In the meantime, incidence of sexual violence continues to rise in conflict settings. The United Nations in 2008 recognized and legally defined systematic mass rape during armed conflicts as a weapon of war. In December 2010, the United Nations Security Council adopted Resolution 1960 to establish a system of accountability for mass rape and to ensure that conflict-related sexual violence does not go unreported or unpunished. [27] Rape has gradually become recognized as a violation of international humanitarian law, but this recognition has not prevented use of sexual violence including rape, sexual violence, abduction, forced marriage and other sexual violence, in wars. [28] Perhaps understanding the public health implications which inevitably affect us all will foster additional political will to act.

V
Public Health Implications

The impact of mass rape on the victims, which includes the individual, family, and community, has economic, psychological, and physical implications as summarized in Figure 2. The *economic consequence* of mass rape and conflict can be devastating in many parts of the world already burdened by poverty. The threat of rape inhibits the mobility of women and girls, who in many villages work the land, collect wood and water. The result is food insecurity and lack in family nutrition. Rape threatens the safety of a community and disrupts daily life including education, farming, commerce, and

access to health care. [2] In addition, the chronic and acute medical and psychological problems discussed below cause or exacerbate poverty.

The *psychological consequence* of mass rape is grave and multi dimensional yet often ignored in settings with minimal stretched resource. Rape has been identified by psychologists as the most intrusive of traumatic events and circumstances surrounding the rape can be determinative of the severity of the outcome as summarized in Figure 1. [29] Rape can lead to post traumatic stress disorder displayed in the form of depression, heightened fear, anxiety, anger, feeling of isolation, phobia, withdrawal, flashbacks, substance abuse disorder, panic disorder, and substance abuse. [57, 79] The physical manifestations of Post-Traumatic Stress Disorder (PTSD) include suicide, self injury, sleep disorders, headaches, and gastrointestinal disorders. [65-66] Psychological counseling is unavailable in resource-poor countries were mass rape often takes place.

When mass rape occurs during conflict, armed fighters storm through villages burning homes, killing men and boys, and raping women and girls. These fighters are purposeful and brutal in indiscriminately targeting not only women and girls but also infants, the elderly and pregnant women. Stigmatization is the most often experienced response to rape and is based on the belief that the victim is disgraced, dishonored or otherwise ruined by the violation. [57] In patriarchic cultures where a woman's chastity and virginity is highly valued, this shame and stigma is likely to extend to the victims family members. [58-59] As a result, family members may shun or abandon the victimized woman especially if impregnated by the rape, leaving her without property or means to care for herself and her child. Men are humiliated by perceived impurity of the

woman and for not being able to protected their family, and may become violent towards their spouse.[6]

Shalhoub-Kevorkian (1999) found that in male-dominated Palestinian culture, the rape of a female especially a virgin is a grave infringement of family honor and threat to male power. In order to maintain control, the victim may be forced to marry her assailant or she might be killed to erase the social shame and stigma attached to rape. [59] Getahun (2001) conducted a community based cross sectional study and found 6.2% (72/1168) of women interviewed in rural North West Ethiopia were subjected to 'Telefa', marriage through abduction and rape. Once the victim has been raped, her family is forced to arrange the marriage with the perpetrator to avoid shame and dishonor, and because she is no longer desirable to another suitor. The median age of the women at first marriage was 13 years. A multivariate analysis in a logistic regression model showed that abducted women were likely to be victims of abortion, marital instability, rape and domestic violence. [76]

Research has found victim-blaming attitudes to be common in many countries. Ward (1995) conducted a multi-national study in Barbados, Canada, Israel, Malaysia, Mexico, Turkey, Singapore, the United States and Zimbabwe and found that less than 50% of students reported believe that men perpetrators are responsible for incidents of rape. [54] Guedes et. al. (2002) found in Dominical Republic, Peru and Venezuela, that 53% of service providers interviewed believed some women provoke their partner's act of violence and 41% of responders stated that adolescents encouraged sexual abuse through inappropriate behaviors.[77] Jejeebhoy & Bott (2003) found that in developing countries including Kenya, Nigeria, Columbia, and Peru, fear of negative reaction from

formal and informal sources served as barrier to reporting and seeking support for rape. [78] Negative societal reaction including stigmatization of rape is associated with more psychological symptoms and greater severity of symptoms of PTSD. [60-63] Further studies have shown that while traumatic events such as rape disrupt positive perceptions of the self, stigmatized victims could permanently feel altered and devalued by the incidence. [64]

Johnson et al. (2010) conducted a cross-sectional population-based cluster survey of 998 adults aged 18 years and older in eastern Democratic Republic of the Congo using structured interviews and questionnaires over a 4-week period in March 2010. The study was intended to assess the prevalence of sexual violence and its association with depression and PTSD. The study found that 39.7% (224/586) of women and 23.6% (107/399) of men experience sexual violence, including being stripped of clothing, molestation and rape. Of those who reported being subjected to sexual violence, 74.3 of women and 64.5 of men said it happened during conflict-setting. Women were reported to have perpetrated conflict-related sexual violence in 41.1% (54/148) of female cases and10.0% (8/66) of male cases. Of those sexually violated, 51.1% (105/202) of women stated they were raped and 33.4% (67/202) said they were gang raped, 20.8% (18/88) of men said they were raped and 7.5% (6/88) said they were gang raped. For women subjected to sexual violence during conflict, 67.7% met symptom criteria for major depressive disorder (MDD) using the Patient Health Questionner-9 and 75.9% for PTSD using the PTSD Symptom Scale Interview (PSSI). For men in the same group, 47.5% met the criteria for MDD and 56.0 for PTSD. See Table 3. [107]

Table 3: Effect of sexual violence on mental health

Gender	N	Substance Abuse	MDD	PTSD	Suicidal Ideation	Suicide Attempt
Female	174	18.1	67.7	75.9	37.0	32.8
Male	87	50.1	47.5	56.0	39.3	22.8

Source: Johnson et al. (2009) reported percentage at 95% CI

The victim's age at the time of the sexual assault is also associated with the extent of psychological effect and subsequent adjustment. Older women have been found to have more difficulty adjusting to the trauma most likely due to fear of stigma. [67-68] Children suffer from long-term and greater symptoms of PTSD, including depression, associated with sexual assault. [69, 72] The ages of victims of mass rape from conflict range widely from infants to the elderly in the community.

However, Morgos et al. (2007) used a quota sampling approach to study three hundred thirty-one children aged 6-17 (45% girls and 57% boys) from three IDP Camps in Darfur Sudan. The study administered a Demographic Questionnaire, Child Post Traumatic Stress Reaction Index, Child Depression Inventory, and the Expanded Grief Inventory. The mean age of the children was 12 years. Out of the 16 possible war experiences listed in Table 4, the mean number was 8.94 (*SD* = 3.27) with older children (13-17 years) facing a larger number of exposures than younger children (6-12 years). In addition, a higher percentage of the older children (16.2%) experienced rape in comparison to the younger children (13.8%). Increased exposure to war experiences was associated with higher levels of: 1) traumatic reactions; 2) depression; and 3) grief symptoms. Being raped was one of the experiences most predictive of traumatic reactions and of depressive symptoms. [110] The study suggests age differences in experiences

observed may be due to cultural expectations imposed on older children to fend for themselves and their younger siblings.

Table 4: Cumulative war experience in Darfur Sudan

1. Forced to leave home	9. Threatened to be killed
2. Home invaded	10. Death of sibling
3. Witness homes burned	11. Abduction/separation
4. Witness shootings	12. Witnessed rape
5. Hide to protect self	13. Death of parent/s
6. Fear of starvation	14. Forced to kill/hurt family
7. Witnessed torture	15. Raped
8. Witnessed burned alive	16. Force to fight

Source: Morgos et al. (2007)

Roberts et al. (2008) conducted a cross-sectional multi-staged, random cluster survey with 1210 adult internally displaced persons (IDPs) in districts of northern Uganda. Levels of exposure to traumatic events and PTSD were measured using the Harvard Trauma Questionnaire, and levels of depression were measured using the Hopkins Symptom Checklist-25. Multivariate logistic regression was used to analyze the association of demographic and trauma exposure variables on the outcomes of PTSD and depression. Over half (54%) of the respondents met symptom criteria for PTSD, and over two thirds (67%) of respondents met symptom criteria for depression. Over half (58%) of respondents had experienced 8 or more of the 16 trauma events covered in the questionnaire. Factors strongly associated with PTSD and depression included gender, marital status, distance of displacement, experiencing ill health without medical care, experiencing rape or sexual abuse, experiencing lack of food or water, and experiencing higher rates of trauma exposure. Furthermore, cumulative exposure of the above factors increases the odds ratio of PTSD and Depression. (See Table 5) [108]

Table 5: Multivariate analysis of individual trauma exposure variables associated with PTSD and depression in Uganda

Variable	PTSD (N = 657)		Depression (N = 815)	
	OR [95% CI]	*P* value	OR [95% CI]	*P* value
Trauma exposure variable				
Ill health without medical care	1.95 [1.52–2.51]	<0.01	1.97 [1.50–2.58]	<0.01
Rape or sexual abuse	1.67 [1.01–2.75]	0.045	NA	NA
Lack of food or water	1.55 [1.00–2.39]	0.048	1.64 [1.05–2.58]	0.03
Unnatural death of family/friend	NA	NA	1.54 [1.10–2.16]	0.01
Being tortured or beaten	1.42 [1.09–1.84]	0.01	1.41 [1.04–1.92]	0.03
Being made to accept ideas	1.39 [1.03–1.88]	0.03	NA	NA
Witnessing murder of stranger(s)	1.38 [1.02–1.86]	0.04	NA	NA
Serious injury	NA	NA	1.38 [1.09–1.74]	<0.01
Cumulative trauma events				
0–3 trauma events	ref		ref	
4–7 trauma events	2.43 [1.3–4.4]	<0.01	2.31 [1.4–3.8]	<0.01
8–11 trauma events	4.62 [2.7–7.8]	<0.01	5.07 [3.1–8.4]	<0.01
12–16 trauma events	6.51 [3.7–11.3]	<0.01	5.84 [3.5–9.7]	<0.01

Abbreviations: CI, confidence interval; PTSD, post-traumatic stress disorder;
OR, odds ratio (adjusted);
NA, not applicable or was not statistically significant (P > 0.05).
Symptoms of PTSD (HTQ PTSD Score = ≥2.0) and depression (HSCL score = ≥1.75)
Source: Roberts et al. (2008)

The use of weapon during assault has been associated with greater severity and frequency of PTSD symptoms in victims. [70] Victims are likely to suffer from greater PTSD symptoms if they are raped in a location they perceived to be safe and by perpetrators perceived as more dangerous. [71] In addition, victims subjected to repeated sexual assault suffer from greater distress and increased severity and frequency of PTSD symptoms. [72] Mass rape during conflict is often committed at or close to home, in front of family and community members which heightens the psychological impact. The perpetrators are armed, dangerous and infamous for the terror and cruelty they bestow of enemy communities.

Individuals are separated from family and community members as they are forced to flea in efforts to save their lives. Even in the event that they are able to physically reunite, rape more than death ensures that communities are unable to mentally regroup. In the aftermath of other forms of violence, individuals talk to each other and provide support as a coping mechanism. Shame, guilt and humiliation associated with rape hinder this informal therapy otherwise available in many of these cultures in lieu of formal counseling. Mass rape intentionally breaks not only the woman's identity but the fabric of the community in places where life depends on group membership.

Figure 1: Factors increasing severity and frequency of PTSD symptoms

- Location of assault
- Presence of family/friends during assault
- Multiple perpetrators
- Use of weapon
- Perpetrator cruelty
- Age of victim
- Repeated attack
- Stigmatization
- Lack of post-attack social support
- Presence of other forms of violence
- Displacement

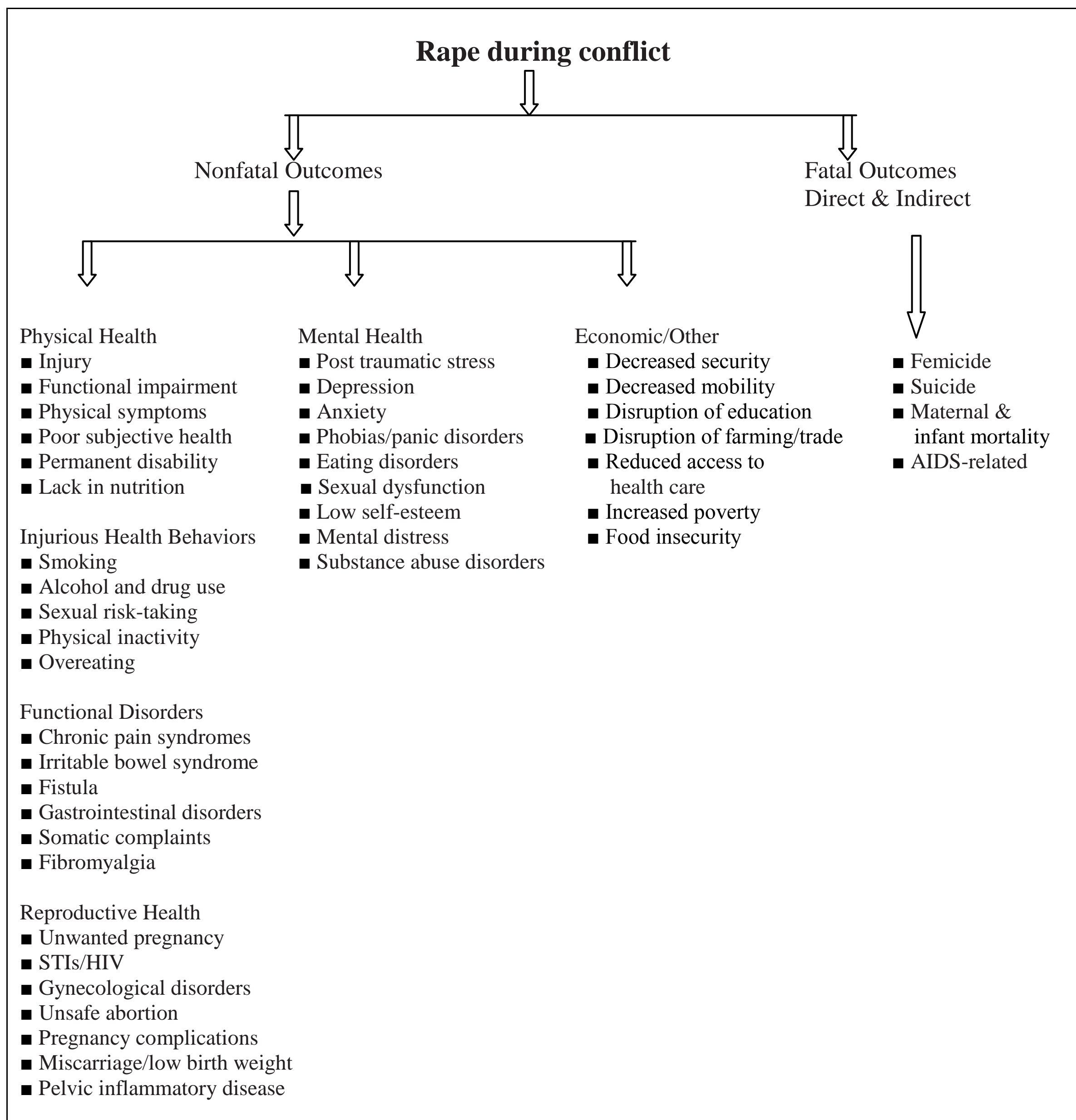
The *physical consequence* of mass rape can lead to both chronic and infectious illnesses. [74] Physical conditions associated with mass rape include injury, HIV/AIDS, other sexually transmitted disease (STD), recurrent infections, fistula, cervical cancer, forced pregnancy, miscarriage, infertility, chronic sexual dysfunction, and death. [65] Many women incur physical injuries including broken bones, wounds, and concussions while resisting rape. [75] During conflict individuals are often raped with not only body parts, but also with guns, knives, bottles, sticks, leading to tearing and mutilation of genital and anal body parts, and excessive bleeding. The extent of genital injury is

greater in women and girls who have undergone Female Genital Mutilation (FGM) which is practiced in many parts of African, the Middle East and some parts of Asia. Type III FGM also known as infibulation involves removal of the clitoris and the labia minora, incision of the labia majora, and stitching of the anterior two thirds of the labia majora. Type IV FGM involves removal of the clitoris and the labia minora plus incision and stitching of the labia majora to cover the urethra and entrance of the vagina, leaving a only very small posterior opening for the passage of urine and menstrual blood. [73] In the presence of Type III and IV FGM, assailants tear open the stitching with sharp objects to gain access causing increased likelihood of excessive bleeding and HIV/STD infection. A study of in Ethiopia found that among those who reported being rape, 17% became pregnant after the rape and studies conducted in Mexico reported similar rates of 15-18%. [84, 88] Forced pregnancy and miscarriages, especially in low income settings, can lead to higher infant and maternal mortality.

Peterman *et al*. (2009) conducted a study based on data from four African countries and found that in Malawi and Rwanda sexual violence was a significant determinant of traumatic fistula, defined as urinary and fecal incontinence via the vagina. [94] Another study in Malawi found that 71% of women who experienced sexual violence reported symptoms of incontinence. [95] It is estimated that elimination of sexual violence could reduce total burden of fistula by 7-40%. [94]

Other gynecological complications associated with rape include vaginal bleeding or infection, fibroids, genital irritation, pain during intercourse, chronic pelvic pain and urinary tract infection. [89-91] HIV and other STD infections are recognized outcomes of rape. [88]

Figure 2: Health Outcomes of Mass Rape during Conflict

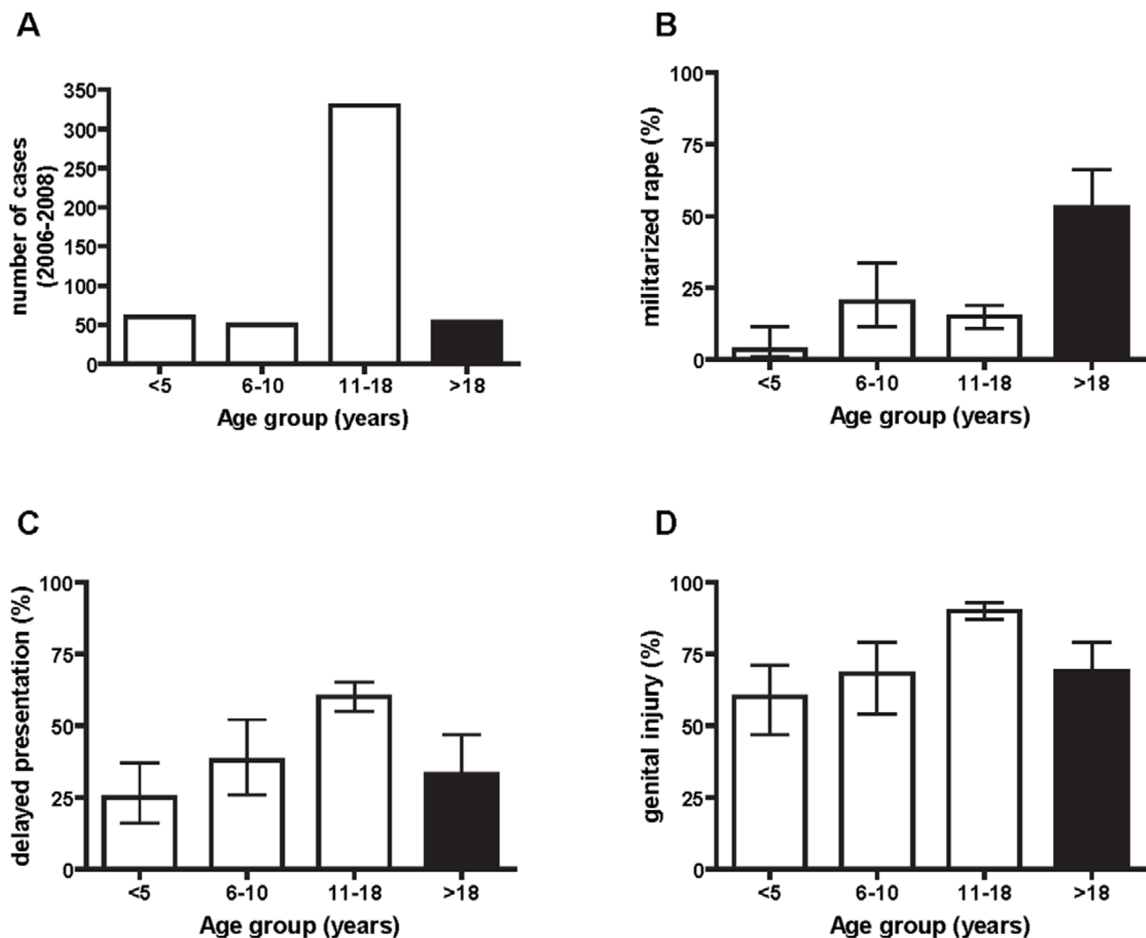


Adopted from Ellsberg et. al. (2005)

Kalisya et al. (2011) observed age differences in reviewing the medical records of patients who were treated at HEAL Africa Hospital, in Goma, DRC between 2006 and 2008. (see Figure 3) The study found that children under age 18 were more often assaulted by someone known to the family (74% vs 30%) and less frequently by military personnel (13% vs 48%) when compared to adults. Children were more likely to have

delayed (72 hours after the assault) presentation for medical care. Physical signs of sexual abuse, including lesions of the posterior fourchette (point where the labia minora meet posteriorly and fuse together), hymeneal tears, and anal lesions, were more commonly observed in children and youth (84% vs 69%). Children were more likely to be pregnant at presentation (21% vs 7.7%) but less likely to be HIV-positive (2.9% vs. 5.3%). [109]

Figure 3. Characteristics of sexual assault according to patient age



Source: Kalisya et al. (2011)

Genital and rectal trauma, multiple assailants and victims, and the short time span under which rape occurs during conflict could increase the risk of HIV and STD

infection. The extent to which mass rape during conflict impacts the rate of HIV/AIDS has been a topic of recent debate. Given that Sub-Saharan Africa is disproportionately affected by armed conflict and the HIV pandemic, most of the studies analyzing the association between the two factors have focused on this region. The UNAIDS and WHO AIDS Epidemic Update from 2009 reports that an estimated:

- Sub-Saharan Africa remains the region most heavily affected by HIV worldwide, accounting for over two thirds (67%) of all people living with HIV and for nearly three quarters (72%) of AIDS-related deaths in 2008.
- An estimated 1.9 million [1.6 million–2.2 million] people were newly infected with HIV in sub-Saharan Africa in 2008, bringing to 22.4 million [20.8 million–24.1 million] the number of people living with HIV. Sub-Saharan Africa's epidemics vary significantly from country to country
- Women and girls continue to be disproportionally affected by HIV in sub-Saharan Africa. Throughout the region, women account for 60% of all HIV infections.[30]

Although, past studies have suggested that the HIV pandemic may have been intensify by ongoing armed conflict in the region, recent articles expressed conflicting views on the relationship between mass rape during conflict and HIV infection rates.[31-34] This paper will now discuss the findings of recent peer-reviewed articles which have led to debate about whether sexual violence is an significant HIV risk factor in conflict-affected settings. The answer to this question has policy implications in the international humanitarian, security, legal and public health fields.

In 2007, Spiegel *et al.* published a systemic review of 295 articles meeting the search criteria and narrowed to 65 that had original prevalence data from seven countries:

Democratic Republic of Congo, southern Sudan, Rwanda, Uganda, Sierra Leone, Somalia and Burundi. These countries were chosen because HIV prevalence surveys data, including original antenatal-care sentinel surveillance data, were available within the past 5 years. This article asked: (1) whether there is evidence to show that conflict increases HIV transmission and (2) whether refugees fleeing conflict areas have a higher prevalence of infection than do surrounding host populations. For the former, the study compared prevalence of HIV infection in populations directly affected by conflict (not necessarily rape) with that in populations not directly affected by conflict but located nearest to the conflict; and for the latter it compared prevalence in refugees and in the nearest surrounding host communities. The study utilized published country and antenatal-care sentinel-site surveillance data for HIV from the UNAIDS and WHO global HIV/AIDS online database. For refugees, original data from UN high Commissioner for Refugees (UNHCR) antenatal-care sentinel surveillance were used. [36]

The study found that HIV prevalence in urban areas affected by conflict decreased in Burundi, Rwanda, and Uganda at similar rates to urban areas in the same countries not affected by conflict. In conflict affected rural areas of these three countries, prevalence of HIV remained low or stable. Of the 12 refugee camps studied, nine had lower prevalence of HIV infection, two a similar prevalence and one a higher prevalence than their respective host countries. The authors concluded that despite mass rape in many countries, there was no evidence that rape increased prevalence of HIV infection at the population level. One explanation provided for this finding is that mass killings, forced displacement, and hiding can lower the detection of infections and consensual exposures and fragmented social networks in which individuals might be exposed to HIV.

However, the authors did concede that given the right circumstances, widespread rape could increase HIV prevalence, for example when the epidemic is in its early stages in a given community. The study was limited by the quality of data and surveillance in displaced populations and conflict areas. Populations affected by conflict may not be available for survey or may be unwilling to undergo testing. When comparisons are made, there may be biases as a result of cultural and geographic differences. [37]

Anema *et al.* (2008) confirmed Spiegel's findings that widespread rape does not increase HIV prevalence at the population level. Anema *et al.* based their analysis on a risk equation model to predict what the relationship between mass rape and HIV prevalence would be under different scenarios for the same seven countries listed in the Spiegel study. Anema *et al.* examine the impact on HIV prevalence if: 1%, 5%, 10% and 15% of the female population aged 5-59 (not 15-49) were raped in each country, if the baseline population prevalence was multiplied by 2, 4, and 8. To derive at the number of newly infected women, the model calculated the number of women at risk multiplied by the probability of the assailant's being positive and the probability of transmission. The number of newly infected women divided by the total population equaled the absolute increase in prevalence. The authors found that even in the most severe circumstance, where 15% of the female population was raped, where HIV prevalence among assailants was 8 times the country population prevalence, and where the HIV transmission rate was highest at 4 times the average high rate, widespread rape increased the absolute HIV prevalence of the seven countries by only 0.023%.[37]

Anema *et al.* found that mass rape did not increase population HIV prevalence even in severe circumstances. The authors did not take into consideration the recency of

HIV infection, which is important for viral load and transmission rate. Given that most of the soldiers are young it could be presumed that if infected with HIV the infection could have occurred recently and with the association between recency of infection and high viral load leading to a higher transmission rate having been established in other studies. [43-49] The authors propose that perhaps HIV prevalence in militaries may be lower than previously assumed due to recruitment from low-prevalence rural areas, to screening of HIV, and stationing soldiers in remote areas with limited mobility and compensation. Another proposed reason is that during conflict there is a reduction in social mobility which reduces the number of sexual partners outside of the rape scenarios. The authors propose that a more important factor for the low change in population HIV prevalence is the relatively low transmission rates of HIV infection through sexual intercourse. But others may argue that this cannot be assumed in the case of rape which often leads to genital and anal trauma. The author nevertheless suggests that the risk of transmission is lower than in the repeated and long term exposures that often occur in concurrent sexual relationships. The study does however mention that long term consequences of rape include the association with sexual risk behavior and with HIV and other sexually transmitted infections. This association could be heightened by the fact that women and children who are raped are often ostracized and forced to be involved in risky behavior to survive. [37]

A third study by Supervie *et al.* (2010) found that although mass rape had minimal affect on the rate of HIV prevalence at the population level, it could increase annual incidence by approximately 7 %. This article assessed the impact of mass rape on not only on prevalence but on incidence as well using the same seven countries listed in

the Spiegel and Anema studies cited above. Supervie *et al.* also used the same age group of females (5-49 years old) and a mathematical risk equation model to calculate the expected change in HIV rates due to mass rape. [38]

As indicated in Figure 4 the authors calculated the incidence due to mass rape during armed conflicts ($I^{r}_{5_49}$) by multiplying the number of women and girls (5–49 years) who are currently uninfected ($X_{5–49}$), the proportion of the female population (5–49 years) who are raped (r), the prevalence of HIV among the assailants (P_r) and the average probability of transmission per act of rape (β_{ar}):

Figure 4: Calculation for Incidence

$$I^{r}_{5-49} = X_{5-49} \times r \times P_r \times \beta_{ar}$$

Similar to Anema *et al.* this study made several assumptions in utilizing the above calculation:

- The prevalence of HIV among assailants (P_r) is higher than in the rest of the male population (P) and therefore defined P_r as $\alpha \times P$. This study assumed P_r would be one to eight times greater than P therefore α vary from 1 to 8.
- Between 1-15% of the population could be raped. Therefore r varied from 0.01 and 0.15.
- The average probability of HIV transmission per act of rape is unknown but higher than the probability of transmission through consensual sex which for heterosexuals in Africa has been estimated to be 0.0009 (range 0.0006-0.0012). Therefore (β_{ar}) in this calculation varied between 0.0028 and 0.032.
- The number of uninfected women and girls age 5-49 years ($X_{5\text{-}49}$) is estimated by subtracting the number of prevalent infections from the total female in that

age group for each of the seven countries. UNAIDS/WHO data was used for prevalence and the US Census Bureau's international Database for population data.

Supervie *et al.,* found that although the effect of mass rape on prevalence was minimal, it could have a 7% increase in incidence. [38]

Watts *et al.* (2010) also analyzed the effect of sexual violence on the rates of HIV infection and was published within weeks of Supervie *et al*.. Watts *et al*. utilized a mathematical model to calculate incidence taking into consideration confounding factors such as prevalence of STI among the assailants, multiple assailants or number of forced sex acts, degrees of genital trauma, and anal versus vaginal penetration. The study found a risk ratio of between 2.4 and 27.1 depending on the scenario, demonstrating that the relationship between mass rape during conflict and HIV infections is highly dependent on the specific facts presented and cannot be generalized. Furthermore, the study highlighted the limitation of modeling which is static and does not account for increases in prevalence due to secondary and tertiary HIV infections which may be indirectly attributable to sexual violence. [39]

The above studies only provided estimates which should not be taken literally; these studies nevertheless carry weight that have an impact on political will and international policies. Applying a generic mathematical risk equation model and assumption to all seven countries could lead to under or over estimation because unique circumstances are not taken into consideration. The models did not contemplate differences among assailants from each country. For example, the Supervie *et al.* study found minimal effect to occur in Somalia utilizing the HIV prevalence rates of Somalia. However, the assailants raping women and girls in Somalia include foreign Ethiopian

fighters who are military soldiers and presumably have a higher prevalence. [40] Had the estimated adult HIV prevalence rate for Ethiopia, 2.1% for ages 15-49 in 2007 compared to Somalia's 0.5%, been factored into the calculation, the result could be significantly different. [41] More important, higher HIV rates may have been introduced into a setting that otherwise may not have been affected by the HIV epidemic. When the HIV prevalence rate of the perpetrators is unknown—for example, among the nomadic *Janjaweeds* who rape women in Darfur—it is difficult to determine the effect.

Furthermore, the risk of HIV infection from mass rape in populations where FGM is imposed on the majority of women and girls will be higher due to tearing and trauma to genital areas. FGM may not play an important role in DRC and Uganda where only 5% of the female population is subjected to the practice; but it could make a significant difference in the calculations for Sierra Leone, Sudan, and Somalia where 80-90%, 89%, and 98% respectively of the women are circumcised. [98] High STD infections in communities can increase the risk of HIV infection from mass rape. Multiple assailants raping multiple victims within a short period of time could increase the rate of transmission especially when individuals may have been only recently infected and with high viral load. [43-49] None of the models considered secondary and tertiary HIV infections attributable to mass rape which would increase the impact on population level prevalence. For example, the *Janjaweeds* did not kill their female rape victims, whereas the victims in Rwanda often were mutilated and killed immediately after rape. The network or chain of potential infection on the victim's side would end in Rwanda thereby decreasing the spread and prevalence of HIV but continue in Sudan.

Protective factors to consider include low HIV/STD rates pre war, non-militarized fighters likely to have lower rates than regular military members, low HIV rates in rural compared to urban areas. These nuances not considered in generic mathematical models could ultimately make a difference in the rate of HIV prevalence. Mathematical modeling should be a starting point and not a replacement for sound data driven epidemiological studies in decision making.

Although actual contact tracing may be difficult in conflict setting, further study taking into consideration concepts of social network structures could shed some light on transmission rates and the extent of the epidemic to expect. Many studies have shown that concurrency is associated with the speed and extent of transmission of HIV infection. [99, 100, 103] Friedman *et al*. (1997) found that individuals who are in a 2-core, meaning they are connected to at least two other individuals, with high risk behavior are more likely to be HIV infected. [101] In settings where multiple assailants are concurrently raping multiple victims, one could expect formation of cyclic structures allowing newly infected individuals to spread the virus to any of their contacts and those contacts to in turn spread it to others, thus facilitating for the virus to spread quickly through the network. Settings with rape during conflict could be analogous to "quasi-anonymous risk nodes" such as shooting galleries, gay bath-houses, and group sex-events. [104]

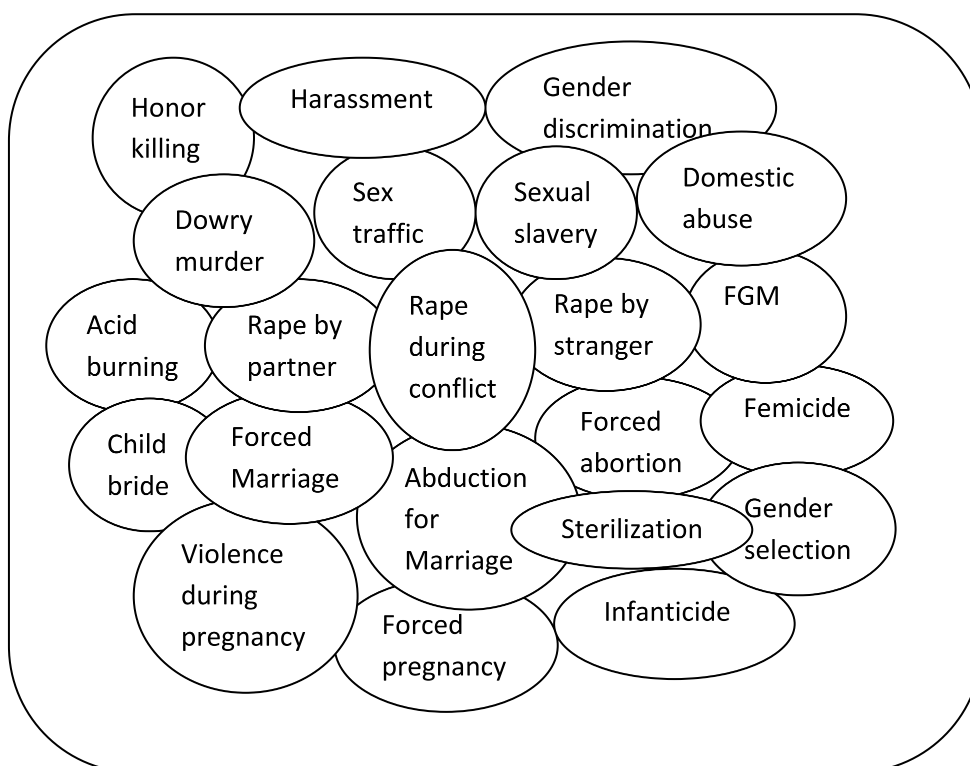
VI
Discussion

Many if not all of the countries where mass rape has occurred as listed in Table 1 are countries where the lack of respect of women is pervasive and the individual rights of women are denied. However, rape during conflict does not occur in a vacuum but rather

it is one form of violence rooted in “a global culture of discrimination” and related to other human right violations against women including harassment, gender discrimination, sex selection, infanticide, FGM, acid burning, dowry murder, forced marriage, domestic violence, honor killing, sex trafficking, sexual slavery, and femicide. These and other forms of gender violence serve as indicators of mass rape during conflict. Sexual violence in turn is compounded by discrimination on the basis of race, ethnicity, social status, religion, and age, all of which may contribute to position a woman at an increase the risk of violence. [92]

Categories of Gender violence cannot be presented as a spectrum or in a hierarchy of severity because human rights violations are subjective in terms of consequence; it may be more pragmatic to view them as interrelated and overlapping events occurring in the lifetime of a woman as set out in Figure 5. Intervention for mass rape has to include reduction of sexual violence during peacetime and can take place at multiple points in the cycle of a woman’s life. (See *Appendix A*)

Figure 5: **Human Rights Violations against Women**



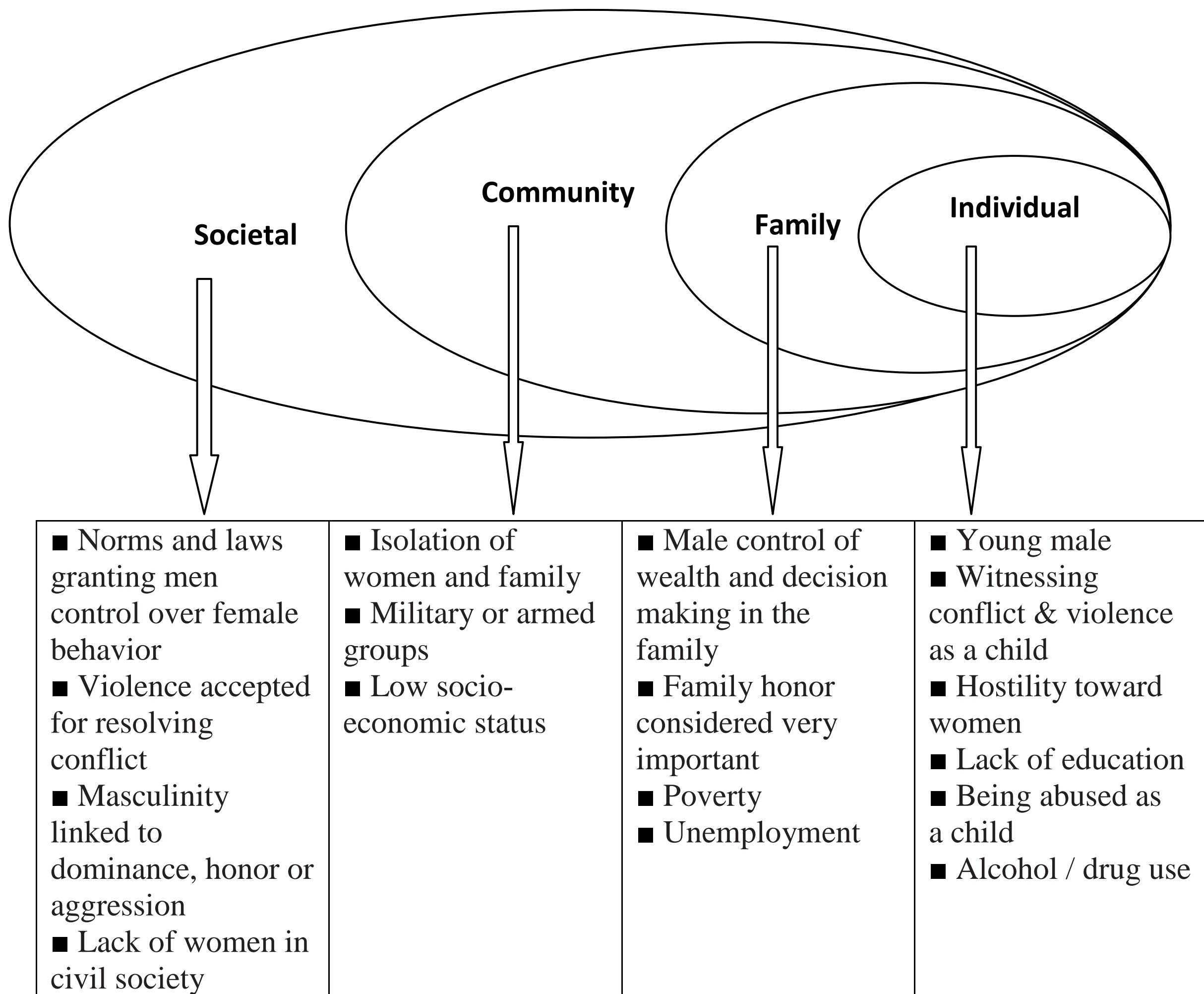
Rape is likely to occur during conflict in societies with rigid and formalized gender roles that tolerate violence against women in peacetime; and where the social or belief system grants men sexual entitlement denying women the right to refuse sexual advances. [86] Where violations against women are allowed to prevail as a normal part of culture and go unpunished, it may be less of a behavioral hurdle for individuals or groups to commit rape during conflict, as such is the case in many parts of Africa and Southeast Asia. [93] Furthermore, the rape perception framework proposes that a society's perception of sexual violence against women is influenced by assignment of responsibility and victim-focused factors such as resistance during assault, choice of attire, and prior sexual history. [53-57] The victim-blaming attitude can translate to justification for raping enemy women during war.

Activity during conflict and peace is fluid in both directions; meaning the greater the prevalence and diversity of acts of violence against women in peacetime, the higher the likelihood that rape will occur during conflict. High rate of sexual violence during conflict is also likely to spill over to peacetime as witnessed by the increased rates of civilian post-conflict rape in DRC, where the number of civilian rapes from 2004-2008 increased by 1733% or 17-fold, while the number of rapes by armed combatants decreased by 77%. [97]

The Ecological Framework attempts to understand the interplay of personal, situational and socio-cultural factors that combine to cause abuse. [80-83] The first level represents the individual and biological history of the person; the second level is the immediate context under which the violation takes place such as family or other relationship; the third level is the institutional and social structure (formal and informal)

such as neighborhood, workplace and social structures; and the fourth level is the economic and social environment including cultural norms. Adaptation of this framework demonstrates the interaction of the relevant factors surrounding rape during conflict as illustrated in Figure 6.

Figure 6: An Ecological Framework for Explaining Rape during Conflict



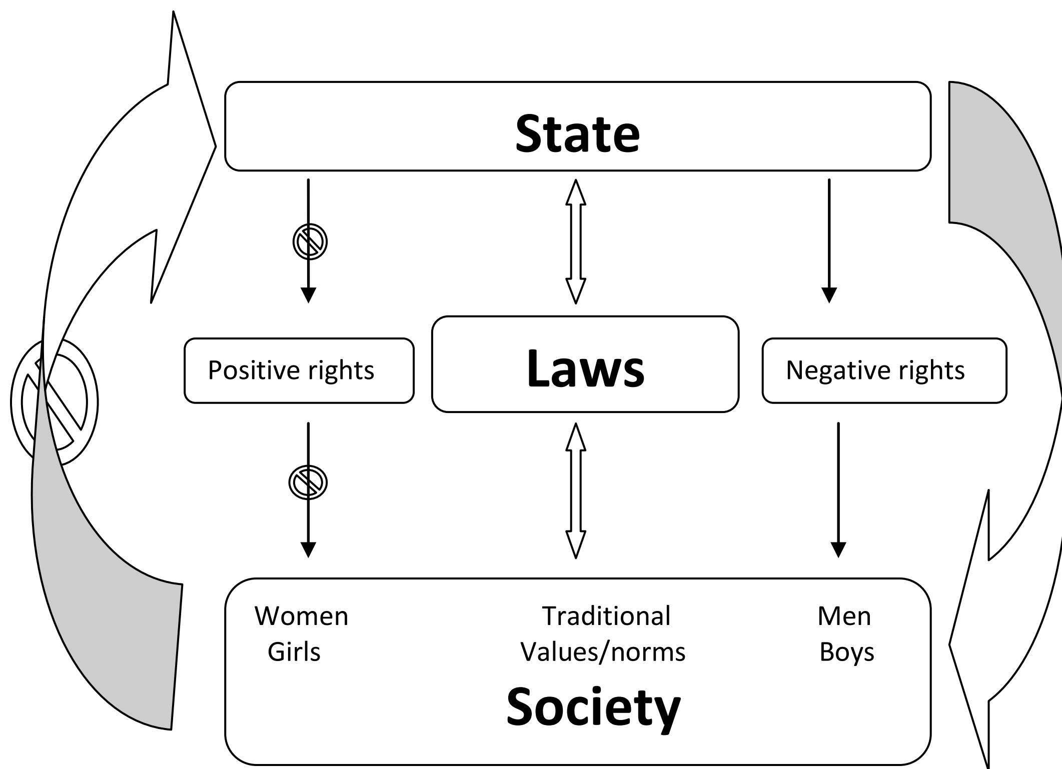
Societal	Community	Family	Individual
■ Norms and laws granting men control over female behavior ■ Violence accepted for resolving conflict ■ Masculinity linked to dominance, honor or aggression ■ Lack of women in civil society	■ Isolation of women and family ■ Military or armed groups ■ Low socio-economic status	■ Male control of wealth and decision making in the family ■ Family honor considered very important ■ Poverty ■ Unemployment	■ Young male ■ Witnessing conflict & violence as a child ■ Hostility toward women ■ Lack of education ■ Being abused as a child ■ Alcohol / drug use

Adopted from Heise (1998) and World Report on Violence and Health (2002)

Although treated as gender-neutral, many policies have often targeted men as citizens, soldiers, workers, fathers, and criminals; and continue to do so in many parts of

the world. [112] In addition, policies have gendered impact - effects that are different for women compared to men even when not intended. Policies not only are affected by existing gender norms and biases but can also replicate and heighten them. [113] Gender identities, relations, norms and cultures affect policies and vice-versa. [114] The absence of women in state governments ensures the continuation of the cycle as demonstrated in figure 7.

Figure 7: Relationship between State and Society.



Adopted from Bouhamdan T.M. (2009) Thesis: Religion, the Law and the Human Rights of Women in the Middle East: A Quantitative Analysis

The United Nations Development Programme (UNDP) in the Millennium Development Goal 3 aimed to promote gender equality and empower women has taken this relationship into consideration in designating the three measurements of achievement for the goal: 1) ratios of girls to boys in primary, secondary and tertiary education, 2)

share of women in wage employment in the non-agricultural sector, 3) proportion of seats held by women in national parliament. The relationship between these measurements and rape during conflict are observed in the Human Development and Gender Inequality Indices as demonstrated in *Appendix B*. [119]

The international community has recently endeavored to map pathways of intervention for gender violence and inequality promoting evidence based programs that utilize formative research, ongoing monitoring and evaluation. [115] One approach that seems promising is the engagement of men and boys in communities to promote gender equality. Several studies have shown this method to be effective in effectuating positive change in gender related behaviors. Welsh (2001), conducted a study in Nicaraguan of men who participated in workshops on gender equity and found significant positive changes in attitude and behavior based on both partner reports and self evaluations. The indicators for change include: use of psychological and physical violence, sexual relations, shared decision making, paternal responsibility and domestic activities. [116] Pulerwitz et al. (2004) conducted a study with young men in Brazil promoting healthy relationships and HIV/STI prevention which resulted in significant positive shifts in gender norms at both six months and 12 months. [117] Similarly, Jewkes et al. (2008) in an intervention program targeting men in South Africa found that participants reported the following changes in behavior: having fewer partners, higher condom use, less transactional sex, less substance abuse and less perpetration of intimate partner violence. [118]

Studies have shown that rape is not a sexual expression or sexually driven but another expression of aggression.[50-52] As stated earlier, sexual violence is confounded

by other forms of violence including those based on ethnicity and religion. Much of the mass rape recently taking place is found in the areas inflicted with ethnic or religious hatred and there is the desire by one ethnic or religious group to eliminate another to gain scarces resources. The fact that rape as a weapon of war succeeded in other parts of the world and that it went unpunished has made its use as a strategy alternative attractive in low resource settings. Furthermore, the stigma attached to rape has guaranteed its effectiveness as a tool of terror and destruction against societies that value female purity and honor. When rape is systematically utilized during conflict as a form of attack on the enemy, it symbolizes the conquest and degradation of the enemy through its women.[85]

Recent high occurrence of mass rape in Africa may be explained by the combined prevalence of disrespect for women's rights, ethnic or tribal loathing, poverty, and political instability. Whether rape has been a historical weapon of tribal wars in Africa is difficult to ascertain given the lack of documentation on the subject; however rape and other violent acts against women are currently a problem in many parts of Africa not currently engaged in conflict, including in South Africa and Kenya.

The countries in Africa, Asia and Europe where mass rape during conflict has recently taken place are clustered to specific regions as evident in *Appendix C*. Clustering is also observed to a lesser extent in Central and South America. This clustering of mass rape is likely due to not only gender roles and cultural norms but also an increased rate of armed conflict in the area. Presumably, reduction in armed conflict would result in less rape being committed during conflict. Therefore, recognizing the risk factors associated with violent conflicts would be important to prevention of rape during conflict. [84] Primary prevention should include the identification of these risk

factors and implementation of intervention methods such as alternative conflict resolutions:

- *Political factors* – lack of democratic processes; and unequal access to power.
- *Economic Factors* – grossly unequal distribution of resources; unequal access to resources; control over key natural resources; and control over drug production or trading.
- *Societal/Community factors* - inequality between groups; fuelling of group fanaticism along ethnic, national or religious lines; readily available small arms and other weapons.
- *Demographic factors* -Rapidly changing demographic

The Carnegie Commission on Preventing Deadly Conflict has listed additional indicators of states at risk of collapse and internal conflict (Table 6). [84, 87] Although the factors listed may not be sufficient on their own, the interaction of combined factors could create a setting for violent conflict. [84]

Table 6: Indicators of states at risk of collapse and internal conflict

Indicator	Signs
Inequality	• Widening social and economic inequalities --- especially those between, rather than within, distinct population groups
Rapidly changing demographic characteristics	• High rates of infant mortality • Rapid changes in population structure, including large-scale movements of refugees • Excessively high population densities • High levels of unemployment, particularly among large numbers of young people • An insufficient supply of food or access to safe water • Disputes over territory or environmental resources that are claimed by distinct ethnic groups
Lack of democratic Processes	• Violations of human rights • Criminal behavior by the state • Corrupt governments
Political instability	• Rapid changes in regimes
Ethnic composition of the ruling group sharply different from that of the population at large	• Political and economic power exercised --- and differentially applied --- according to ethnic or religious identity • Desecration of ethnic or religious symbols
Deterioration in public services	• A significant decline in the scope and effectiveness of social • safety nets designed to ensure minimum universal standards • of service
Severe economic Decline	• Uneven economic development • Grossly unequal gains or losses between different population • groups or geographical areas resulting from large economic • changes • Massive economic transfers or losses over short periods of • time
Cycles of violent revenge	• A continued cycle of violence between rival groups

Note: From World Report on Violence and Health (2002)

In addition to the above indicators for emerging conflict, the international community in attempting to avert rape during conflict has to recognize specific conflict settings that lend themselves to its likelihood. Specific types of war increasing the likelihood of mass rape taking place include: conflicts that target civilian populations, and conflicts lacking artillery and machinery lead to fighting with minimal weaponry and human to human contact.

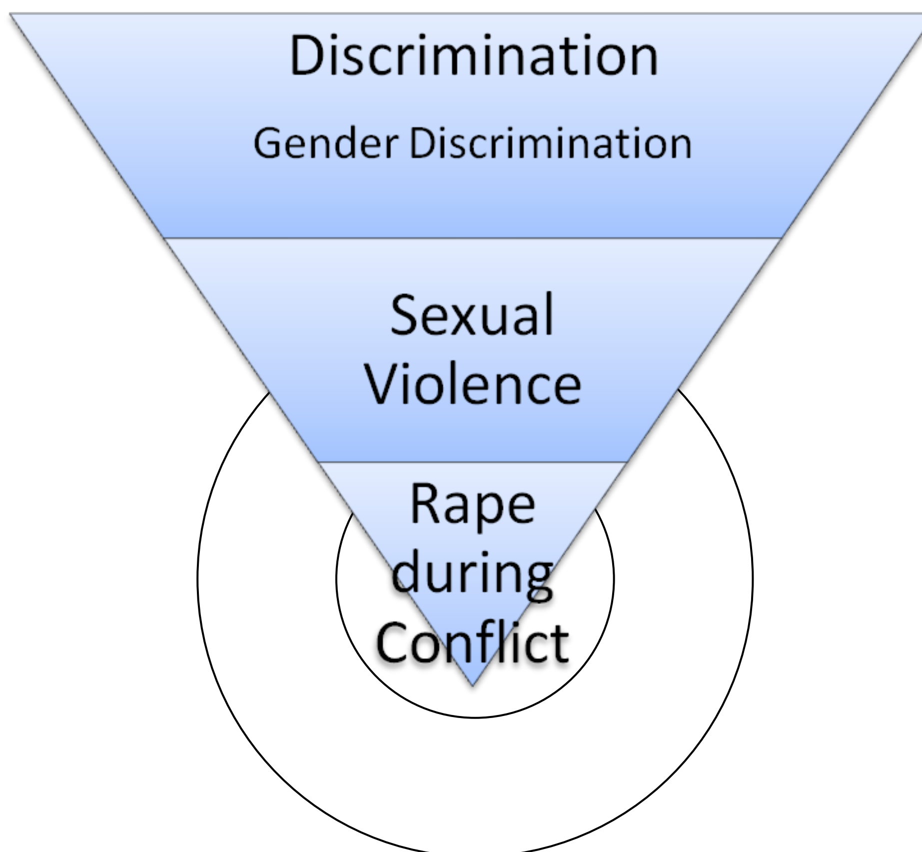
Interventions to promote women's rights should be evidence based and embedded within policies and programs that address other forms of violence and promote other issues of interest not only to women also to men including: political stability, human (gender, ethnic, religious, democratic) rights, economic development, and health equity. Advocates of gender equality should highlight the relationship between gender equality and development when addressing men who are decision makers in states, communities and families. Gap in gender inequality at the three levels will influence decrease the likelihood of mass rape during conflict. Strategies for such social change must be multi-dimensional including community education, community mobilization, media, policy development and advocacy to address the social and structural determinants of gender inequalities.

Evaluation and outcome measurements should include: change in behavior and perception, reduction in gender violence (including rape during conflict), improvement in reproductive health, achievement of UNDP Millennium Development Goal 3 to promote gender equality and empower women, and improvement of Human Development Index.

V.
Recommendations

The issue of mass rape requires a multi-dimensional response from the international community engaging decision makers in the security, humanitarian, legal and public health arena. Governments, UN agencies and NGOs must work together to systematically prevent and deter the use of mass rape as a weapon of war. The proposed pathway for intervention is demonstrated in Figure 8; however where rape is imminent or already occurring in conflict settings, emergency plans must be implemented to intervene and prevent further harm. Because of the complexities associated with discrimination on other grounds, the rest of the discussion will focus on gender discrimination and downward. However, it is important to note that other forms of discrimination, including religious and race, must simultaneously be addressed as interrelated and confounding human rights violations.

Figure 8: Pathway for Intervention



Prevention methods should model the Ecological Framework utilized to explain the indicators of mass rape in Figure 5 in targeting the individual, family, community and social levels.

At the *individual level*, prevention would target victims of rape, women and girls, boys and men, children who have witnessed rape.

- Identify victims of rape and provide services including social-support, psychological and medical care. Social support would entail education and resources for gainful employment; psychological counseling to diminish self-blame, stigma, and PTSD; and medical care for injury and other health complications including HIV post-exposure prophylaxis, treatment of sexually transmitted infections, and termination of unwanted pregnancy. Although it might be difficult to reach all victims of mass rape, individuals at refugee and internally displaced camps would be ideal first candidates for service with intention to expand once security has been established.
- Target programs for social intervention at women and girls including better education and employment opportunities, improved self-esteem and violence education.
- Target programs for social intervention at boys and men as particularly awareness of violence and its consequences. Re-train boys and men to think of women as human beings with full rights and not property of men.

- Target children who have witnessed violence, sexual or armed conflict in intervention campaigns designed to break the cycle of victim to aggressor.

At the *family level* programs should aim to assist victimized families and enable families to break from tradition.

- Provide victims of rape and violence with psychological counseling and social support, including helping them to avoid victim-blaming and stigmatizing the victim, and financially assisting them to regain their livelihood. Social support to families of victims should include medical care, legal counsel, housing, employment, education and child care.
- Enable families to break from traditional gender norms by encouraging them to value individual integrity and responsibility over family honor.
- Assist families willing to enroll in gender violence reduction programs, including enrollment of girls in schools and allowing women to obtain skills and participate in gainful employment, by providing resources to increasing family income levels which will help combat poverty and improved education levels of women in the long run. Empowering women financially and improving their self esteem and educating men to think of women as human beings should help balance decision making between the two genders.

At the *community level*, victimized neighborhoods and villages should be provided basic infrastructure and capacity building.

- Establish or rebuild medical facilities, housing, roads, schools, farming and trade.

- Include women as community leaders and decision makers in post conflict reconstruction as an opportunity to change course.
- Engage community leaders including men willing to embrace change and promote equality.
- Educate military or armed group communities about sexual violence and gender-human rights, conflict resolution and STD transmission and protection.
- Train health, legal, security, and humanitarian aid service providers to reduce victim-blaming and to create environments conducive to reporting of sexual violence.
- Encourage schools, employers, and governments to incorporate programs to reduce sexual discrimination and violence.

At the *societal level*, prevention should be multi-dimentional and specific to the setting at hand.

- Identify and prosecute perpetrators of human rights violations and specifically sexual violence during conflict for crime against humanity, crime of war, act of genocide and torture pursuant to appropriate provisions. This is necessary to deter other groups and individuals from using mass rape as a strategic weapon of war in the future.
- Prosecute more leaders and rank-and-file members in open courts and bring it to the attention of the media and the international community to maximize deterrence effect. Send a clear message that rape will not be

committed with impunity and the rapist should be stigmatized not the victim.

- Protect the privacy and security rights of the victims,
- Prohibit negotiation with groups and individuals who gain control through human rights violations and sexual violence. The international community should recognize leaders of countries who utilized rape to gain power. International community must condemn and impose sanction against countries where rape is a standard weapon of war.
- Utilize reconciliation efforts only if necessary and appropriate in a setting and for purposes other than forgiveness. It should incorporate training on sexual violence and respect for human rights and training regarding STD/HIV transmission prevention methods.
- Assist national legal systems to establish laws prohibiting sexual violence and incorporate gender equality in constitutional, legislative and policy reforms.
- Assist national capacity to adjudicate sexual crimes.
- Hold governments accountable for allowing norms and laws permitting human rights violations against a woman or girl to remain effective.
- Make grant funding dependant on accountability on the part of government and civil societies to implement programs and targeted at decreasing sexual violence, including the inclusion of women in government and civil society.

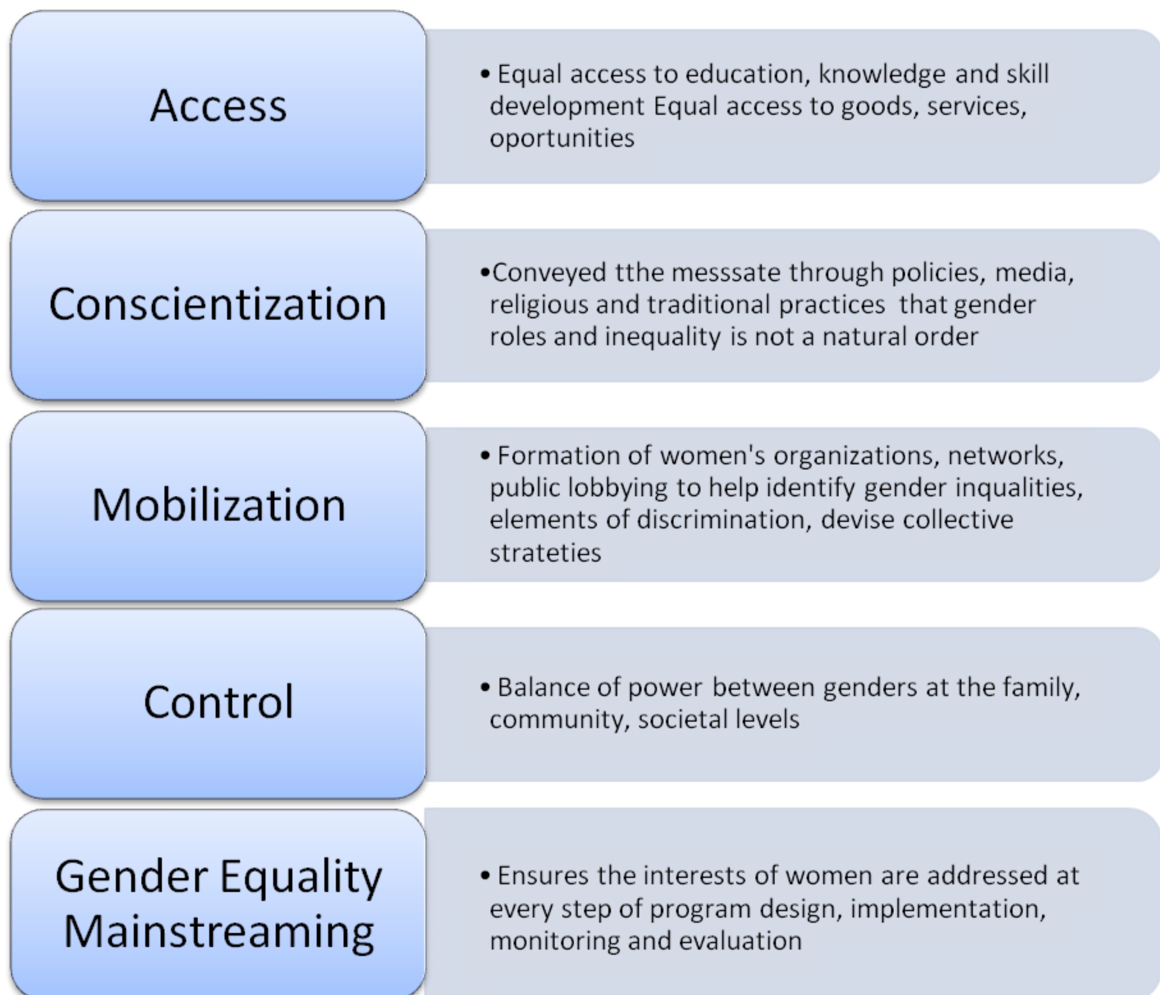
In *emergency settings*, the international community and national governments must provide for the protection of women and girls as soon as conflict begins.

- Provide enhanced security in refugee and internal displacement settings.
- Monitored conflict settings for indicators of sexual violence and implement primary prevention methods.
- Incorporate HIV/AIDS programs in all UN Peacekeeping missions.
- Increase access to humanitarian assistance in high risk settings (including food, water, shelter, and medical).
- Engage women in conflict prevention, peace negotiation, and post-conflict recovery activities.

The public health field can support the above efforts by creating and supporting mandatory reporting systems to improve surveillance method to account for incidence of rape during armed conflict. To maximize results, reporting methods should consider a "neighborhood methodology," in which adult female heads of household reported about their own, their sisters' and their neighbors' experiences as described by Stark et al. (2009). [111] Epidemiological studies should be conducted on the association of sexual violence to HIV infection including comparing rates of HIV infection among individuals who have been raped with those who have not. Ongoing program evaluation and comparative studies are necessary to determine effectiveness of behavioral and societal norm modification campaigns. Cost-benefit analysis regarding intervention and prevention programs must be conducted in light of the humanitarian and long-term benefit to be gained as well as the burden to be incurred by individuals and society if no action is taken.

It is important to note that women affected by violence and conflict are not waiting to be saved. They continue to struggle to gain control over their lives and strive to bring peace and stability to their communities and homes. The international world could however lend a hand and create options to help them gain empowerment. UNHCR defines empowerment as "a process through which individuals in disadvantaged positions increase their access to knowledge, resources, and decision-making power, and raise their awareness of participation in their communities, in order to reach a level of control over their own environment" and suggests there are five interrelated dimensions to women's empowerment in refugee settings. [106] (See Figure 9) These dimensions can be adopted as pathways to empower women in other settings.

Figure 9: Interrelated Dimensions to Empowerment



An example of a creative and successful campaign to empower women and prevent the cycle of gender violence includes the Arusha Peace Process in Burundi, where request was made for a few seats to be reserved for women to voice their perspective at the post-conflict negotiation table in exchange for international assistance. Through inter-agency collaboration, a partnership was established between these women and experts in UN agencies to provide the women with knowledge and confidence to propose gender-sensitive recommendations at the table.

Limitations of this study include the lack of data availability for statistical analysis regarding the association between rape and health, specifically HIV at the population level. Further study assessing this relationship could fuel the political will necessary for the international community to seriously prosecute violence against women in conflict or other settings.

References

1. Charter of the International Military Tribunal, Annexed to the Agreement for the Prosecution and Punishment of the Major War Criminals of the European Axis, Aug. 8, 1945, United States Statutes at Large 279 (1945): 1544, art. 6(c). Charter of the International Military Tribunal for the Far East, Jan. 19, 1946, art. 5(c), contained in Special Proclamation by the Supreme Commander for the Allied Powers at Tokyo, Jan. 19, 1946, Treaties and Other International Acts Series 1589.
2. Kivlahan, C., & Ewigman, N., (2010). *Rape as a weapon of war in modern conflicts. British Medical Journal, 340,* c3270. doi: 10.1136/bmj.c3270.
3. Hayden, R.M. (2000). Rape and Rape Avoidance in Ethno-National Conflicts: Sexual Violence in Liminalized States. *American Anthropologist, 102(1),* 27–41.
4. Gingerich, T., Leaning, J., (2004) The Use of Rape as a Weapon of War in The Conflict in Darfur, Sudan. *Boston MA: Harvard University School of Public Health*.
5. Borstow, A. (2000). Introduction. In A. Barowston (Ed.), War's dirty secret: Rape, Prostitution, and other crimes against women (pp. 1-12). Cleveland, OH: The pilgrim press. Chang, I. 91997). The rape of Nanking. New York: Basic Books.
6. Gottschal, J. (2004). Explaining Wartime Rape. *Journal of Sex Research*, 41(2).
7. Meron, T. (1993). Henry's Wars and Shakespeare's Laws: Perspectives on the Law of War in the Later Middle Ages. New York, NY: Oxford University Press.
8. Instructions for the Government of the United States in the Field by Order of the Secretary of War (Washington, DC, Apr. 24, 1863); Rules of Land Warfare, War Dept. Doc. No. 467, Office of the Chief of Staff (G.P.O. 1917) (approved Apr. 25, 1914).
9. Hague Convention of 1907. http://www.icrc.org/ihl.nsf/INTRO/195?OpenDocument
10. Neill, K.G. (2000) Duty, Honor, Rape: Sexual Assault against Women during War. *Journal of International Women's Studies,* 2 (2).
11. Askin, K.D. (2003) Prosecuting Wartime Rape and Other Gender-Related Crimes under International Law: Extraordinary Advances, Enduring Obstacles. *Berkeley Journal of International Law,* 21, 298.
12. Meron, T. (1993). Rape as a Crime Under International Humanitarian Law. *American Society of International Law*, 87 (3), 424-428.
13. Geneva Convention Relative to the Protection of Civilian Persons in Time of War, August 12, 1949, United States Treaties and Other International Agreements 6: 3516, article 27.
14. Convention on the Prevention and Punishment of the Crime of Genocide, December 9, 1948, United Nations Treaty Series 78: 277.
15. Pilch, F.T. (2002) Rape as Genocide: The Legal Response to Sexual Violence. The Center for Global Security and Democracy, Columbia University International Affairs On-Line, 5.
16. *Prosecutor v. Akayesu*, International Criminal Tribunal for Rwanda, (September 2, 1998) ICTR-96-4-T.
17. *Prosecutor v. Radovan Karadzic,* International Criminal Tribunal for the Former Yugoslavia (April 28, 2000);

18. *Prosecutor v. Ratko Mladic.* International Criminal Tribunal for the Former Yugoslavia, (Oct. 10, 2002) IT-95-5/18-I.
19. *Prosecutor v. Delalic,* International Criminal Tribunal for the Former Yugoslavia, (Nov. 16, 1999), IT-96-21-T.
20. *Prosecutor v. Furundzija.* International Criminal Tribunal for the Former Yugoslavia. (Dec. 10, 1998), IT-95-17/1-T.
21. Rome Statute of the International Criminal Court, (1998) U.N. Document A/CONF.183.9 (effective as of July 2, 2002).
22. Nowrojee, B. (2005). Making the Invisible War Crime Visible: Post-Conflict justice for Seirra Leone's Rape Victims. Harvard Human Rights Journal, 18.
23. The Truth and Reconciliation Commission Act (2000) (Sierra Leone).
24. Cleiren, C.P.M., & Tigssen, M.E.M. (1994). Rape and Other Forms of Sexual Assault in the Armed Conflict of the Former Yugoslavia: Legal, Procedural, and Evidenciary Issues. *Criminal Law Forum*, 5(2-3), 471-506.
25. *Prosecutor v. Radovan Karadzic,* International Criminal Tribunal of Yugoslavia, July 11, 1996, IT-95-5-R61
26. *Prosecutor v. Ratko Mladic,* International Criminal Tribunal of Yugoslavia, July 11, 1996 IT-95-18-R61,.
27. The United Nations Security Council Resolution 1820, (2008) Women and Peace and Security. The United Nations Security Council Resolution 1960, (2010) Women and Peace and Security. http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/WPS%20SRES%201960.pdf
28. Hargreaves, S. (2001). Rape as a war crime: putting policy into practice. *The Lancent,* 357, 9258.
29. UNICEF The State of the World's Children 1996: Sexual Violence as a Weapon of War, http://www.unicef.org/sowc96pk/sexviol.htm
30. UNAIDS/WHO Factsheet sub-Saharan Africa Latest Epidemiological Trends http://www.unaids.org/en/media/unaids/contentassets/dataimport/pub/factsheet/2009/20091124_fs_ssa_en.pdf
31. Ellman, T., Culbert, H., & Torres-Feced, V., (2005). Treatment of AIDS in conflict-affected settings: a failure of imagination. *The Lancet*, 365,278–280.
32. Hankins, C.A., Friedman, S.R., Zafar T., & Dtrathdee, S.A. (2002). Transmission and prevention of HIV and sexually transmitted infections in war settings: implications for current and future armed conflicts. *AIDS,* 16, 2245–2252.
33. Mock, N.B., Duale, S., Brown, L.F., Mathys, E., O'maonaigh, H.C., Abul-Husn, N.L., & Elliott, S., (2004). Conflict and HIV: A framework for risk assessment to prevent HIV in conflict-affected settings in Africa. *Emerging Themes Epidemiology,* 1,6.
34. Mills, E.J., Singh S., Nelson, B.D., & Nachega, J.B., (2006). The impact of conflict on HIV/AIDS in sub-Saharan Africa. *International Journal of STD AIDS,* 17, 713–717.
35. Becker, J.U., Theodosis, C., & Kulkarni, R., (2008) HIV/AIDS, conflict and security in Africa: rethinking relationships. *Journal of International AIDS Society*, 11, 3.
36. Spiegel, P.B., Bennedsen, A.R., Claass, J., Bruns, Patterson, L.N., Yiweza, N., & Schilperoord, M. (2007). Prevalence of HIV infection in conflict-affected and displaced people in seven sub-Saharan African countries: a systematic review. *The Lancent*, 369, 2187.

37. Anema, A., Joffres, M.R., Mills, E., & Spiegel, P.B. (2008). Widespread rape does not directly appear to increase the overall HIV prevalence in conflict-affected countries: so now what? *Emerging Themes in Epidemiology,* 5,11.
38. Supervie,V., Halima, Y., & Blower, S. (2010). Assessing the impact of mass rape on the incidence of HIV in conflict-affected countries. *AIDS,* 24.
39. Watts, C.H., Foss, A.M., Hossain, M., Zimmerman, C., von Simson, R., & Klot, J., (2010) Sexual violence and conflict in Africa: prevalence and potential impact on HIV incidence. *Sexually Transmitted Infections*, 86(3).
40. Somalia: War Crimes Devastate Population, Human Rights Watch, 2008, http://www.hrw.org/en/news/2008/12/08/somalia-war-crimes-devastate-population
41. http://www.unicef.org/infobycountry/somalia_statistics.html
42. Struggling to Survive: Barriers to Justice for Rape Victims in Rwanda, Human Rights Watch, Sept. 2004.
43. Bätzing-Feigenbaum, EJ, Loschen, S, Gohlke-Micknis, S, Zimmermann, R, Herrmann, A, Kamga Wambo, O, Kücherer, C, Hamouda, O, (2008) Country-wide HIV incidence study complementing HIV surveillance in Germany, Eurosurveillance, 13(36).
44. Novitsky, V, Wang, R, Kebaabetswe, L, Greenwald, J, Rossenkhan, R, Moyo, S, Musonda, R, Woldegabriel, E, Lagakos, S, Essex, M (2009). Epidemiology and Social Science, Better Control of Early Viral Replication Is Associated With Slower Rate of Elicited Antiviral Antibodies in the Detuned Enzyme Immunoassay During Primary HIV-1C Infection, Journal of Acquired Immune Deficiency Syndromes, 52 (2) pp 265-272 doi: 10.1097/QAI.0b013e3181ab6ef0
45. Miller WC, Rosenberg NE, Rutstein SE, Powers KA. Role of acute and early HIV infection in the sexual transmission of HIV. Division of Infectious Diseases, Department of Medicine, School of Medicine, University of North Carolina at Chapel Hill, North Carolina 27599-7030, USA.
46. Jacquez JA, Koopman JS, Simon CP, Longini IM, Jr. (1994). Role of the primary infection in epidemics of HIV infection in gay cohorts. Journal of Acquired Immune Deficiency Syndromes 7: 1169-84.
47. Leynaert B, Downs AM, de Vincenzi I. (1998). Heterosexual transmission of human immunodeficiency virus: variability of infectivity throughout the course of infection. European Study Group on Heterosexual Transmission of HIV. American Journal of Epidemiology 148: 88-96.
48. Mastro TD, Satten GA, Nopkesorn T, Sangkharomya S, Longini IM, Jr. (1994). Probability of female-to-male transmission of HIV-1 in Thailand. Lancet 343: 204-7.
49. Satten GA, Mastro TD, Longini IM, Jr. (1994). Modelling the female-to-male per-act HIV transmission probability in an emerging epidemic in Asia. Statistics in Medicine 13: 2097-106.
50. Seifert, R. *War and Rape. Analytical Approaches*. Women's International League for Peace and Freedom, 1992.
51. Rozée, P. “Forbidden or Forgiven? Rape in Cross-Cultural Perspective”. In *Psychology of Women Quarterly*, vol.17, 1993
52. Groth A.N., Birnbaum, H.J. *Men Who Rape. The Psychology of the Offender.* New York, Plenum Press, 1980.

53. Anderson, I (2004) Explaining negative rape victim perception: Homophobia and the male rape victim. Current Research in Sociology Psychology, 10:43-57.
54. Ward C (1995). Attitudes toward rape and rape victims: Survey research. Attitudes toward rape: Feminist and social psychological perspectives. London, UK, Sage Publications: 38-65.
55. Anderson I, Swainson V (2001). Perceived motivation for rape: Gender differences in beliefs about female and male rape. Current Research in Social Psychology, 6:107-123.
56. Edmonds EM, Cahoon DD (1986). Attitudes concerning crimes related to clothing worn by female victims. Bulletin of the Psychonomic Society. 24:444-446.
57. Rape: How women, the community and the health sector respond. Sexual Violence Research Initiative, WHO 2007.
58. Mollica R, Son L (1989). Cultural Dimensions in the evaluation and treatment of sexual trauma: An overview. Psychiatric Clinics of North America, 12:363-379.
59. Shalhoub-Kevorkian, N (1999). Towards a culture definition of rape: Dilemmas in dealing with rape victims in palestinian society. Women's Studies International Forum, 22:157-173.
60. Campbell, R , Sefl, T, Barnes HE, Ahrens CE, Wasco SM, Zaragoza-Diesfeld Y. (1999). Community services for rape survivors: Enhancing Psychological well-being or increasing trauma? Journal of Consulting and Clinical Psychology, 67:287-302.
61. Davis, RC, Brickman, ER, Baker, T (1991). Supportive and unsupportive responses of others to rape victims: Effects on concurrent victim adjustment. American Journal of Community Psychology, 19:443-451.
62. Ullman SE (2000). Psychometric characteristics of the social reactions questionnaires: A measure of reactions to sexual assault victims. Psychology of Women Quarterly, 24:257-271.
63. Ullman SE, Filipas HH (2001). Predictors of PSTD symptom severity and social reactions in sexual assault victims. Journal of Traumatic Stress, 14:369-389.
64. Janoff-Bulman, R. (1992). Shattered assumptions: Towards a new psychology of trauma. New York, NY, Free Press.
65. Jewkes, R., Sen, P., Garcia-Moreno C (2002). Sexual violence. In: Krug Eg (eds) World Report on violence and health. Geneva, World Health Organization: 149-181.
66. Cohen, LJ., Roth S. (1987). The psychological aftermath of rape: Long-term effects and individual differences in recovery. Journal of Social and Clinical Psychology, 5:525-534.
67. Ruch, LO, Chandler S., (1983). Sexual assault trauma during the acute phase: An exploratory model and multivariate analysis. Journal of Health and Social Behavior, 24:174-185.
68. Sales, E., Baum, M., Shore, B. (1984). Victim readjustment following assault. Journal of Social Issues, 40:117-136.
69. Bahali K, Akçan R, Tahiroglu AY, Avci A. (2010)Child sexual abuse: seven years in practice. Journal of Forensic Science, 55(3):633-6.
70. Dautton MA (2003). Determinants and social context of battered women's threat appraisal. Chicago, IL, International Society for Traumatic Stress Studies.
71. Cascardi M, Riggs, D.S., Hearst-Ikeda, D., Foa, E.B., (1996). Objective ratings of assault safety as predictors of PTSD. Journal of Interpersonal violence, 11:65-78.

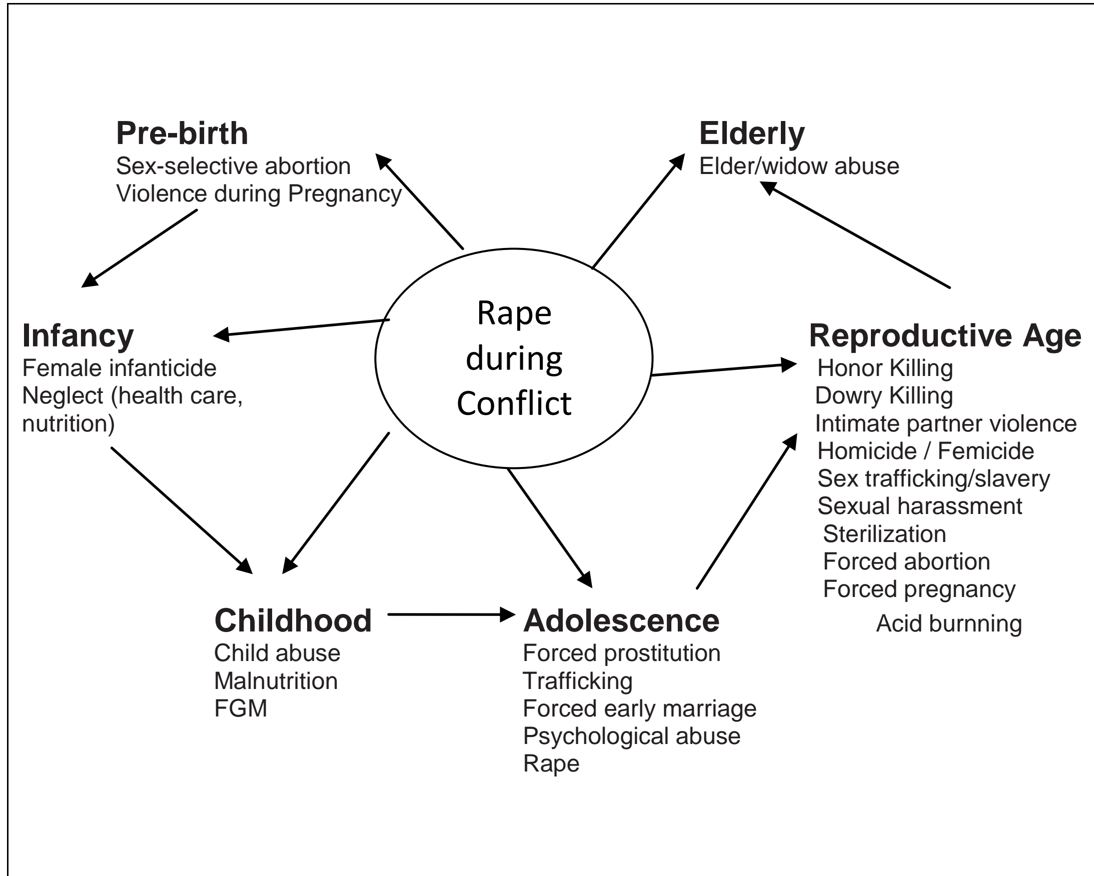
72. Filipas, HH, Ullman, SE (2006) Child sexual abuse, coping responses, self-blame, posttraumatic stress disorder, and adult sexual revictimization. Journal of Interpersonal Violence, 21:652-672.
73. Toubia, N (1994). Female Circumcision as a Public Health Issue. New England Journal for Medicine 331, 712-716.
74. Golding, JM (1994). Sexual assault history and physical health in randomly selected Los Angeles women. Health Psychology, 13:130-138.
75. Tjaden, p., Thoennes, N. (2000). Full report of the prevalence, incidence, and consequences of violence against women. Washington DC, US Department of Justice.
76. Getahun, H. (2001). Marriage through abduction ('Telefa') in rural north west Ethiopia. Ethiopian Medical Journal, 39 (2): 105-12.
77. Guedes, A., Bott, S., Cuca, Y. (2002). Intergrating systemic screening for gender-based violence into sexual and reproductive health services: Results of a baseline study by the international planned parenthood federation, western hemisphere region. International Journal of Gynecology and Obstetrics, 78:557-563.
78. Jejeebhoy, SJ., Bott, S. (2003). Non-consensual sexual experience of young people: A review of the evidence from developing countries No. 16. New Delhi, India, The Population Council.
79. Ellsberg, M., Heise, L. (2005) Researching violence against women: A practical guide for researchers and activists, PATH, World Health Organization.
80. Jewkes R, Levin J, Penn-Kekana L. (2002). Risk factors for domestic violence: Findings from a SouthAfrican cross-sectional study. *Social Science and Medicine,* 55(9):1603.-1617.
81. Heise L. (1998) Violence against women: An integrated, ecological framework. *Violence against Women.* 4(3):262-290.
82. Koenig MA, Lutalo T, Zhao F, et al. (2004) Coercive sex in rural Uganda: Prevalence and associated risk factors. *Social Science and Medicine.*58:787-798.
83. Koenig M, Lutalo T, Zhao F, et al. (2003) Domestic violence in rural Uganda: Evidence from a community-based study. *Bulletin of the World Health Organization,* 81:53-60.
84. World Report on Violence and Health (2002), World Health Organization, http://whqlibdoc.who.int/hq/2002/9241545615.pdf
85. Swiss S et al. (1998)Violence against women during the Liberian civil conflict. Journal of the American Medical Association, 279:625–629.
86. Bennett L, Manderson L, Astbury J. (2000) Mapping a global pandemic: review of current literature on rape, sexual assault and sexual harassment of women. Melbourne, University of Melbourne.
87. Carnegie Commission on Preventing Deadly Conflict. Preventing deadly conflict: final report. New York, NY, Carnegie Corporation, 1997.
88. Mulugeta E, Kassaye M, Berhane Y. (1998). Prevalence and outcomes of sexual violence among high school students. Ethiopian Medical Journal, 36:167–174.
89. Eby K et al. (1995). Health effects of experiences of sexual violence for women with abusive partners. Health Care for Women International, 1995, 16:563–576.
90. Leserman J et al.(1998). Selected symptoms associated with sexual and physical abuse among female patients with gastrointestinal disorders: the impact on subsequent health care visits. Psychological Medicine, 28:417–425.

91. Plichta SB, Abraham C. (1996) Violence and gynecologic health in women less than 50 years old. American Journal of Obstetrics and Gynecology, 174:903–907.
92. Violence against women, Amnesty International. http://www.amnestyusa.org/print.php
93. Women, War, Peace: The independent Experts' Assessment on the Impact of Armed Conflict on Women and Women's Role in Peace-Building (Progress of the World's Women 2002, Vol.1). www.unifen.org/materials/item_detail.php?ProductID=17
94. Peterman, A., Johnson K., (2009). Incontinence and trauma: Sexual violence, female genital cutting and proxy measures of gynecological fistula. Social Science and Medicine, 68(5):971-9.
95. Johnson, K., (2007). Incontinence in Malawi: Analysis of a proxy measure of vaginal fistula in a national survey. International Journal of Gynecology and Obstetrics, 99(1):S122-219.
96. Mackinnon, C. A. (1997). Turning rape into pornography: Postmodern genocide. In A. Stiglmayer (Ed.), Mass rape: The war against women in Bosnia-Herzegovina (pp.73-81). Lincoln: University of Nebraska Press.
97. Now, the world is without me: An investigation of sexual violence in Eastern Democratic Republic of Congo. A Report by the Harvard Humanitarian Initiative with support from Oxfam America, April 2010.
98. Female genital mutilation in Africa: Information by country. Amnesty International, (1997) Index: ACT 77/07/97.
99. Rothenberg, R.B., Potterat, J.J., Woodhouse, D.E., Muth, S.Q., Darrow, W.W., & Klovdahl, A.S., (1998). Social network dynamics and HIV transmission. *AIDS*, 12(12), 1529-36.
100. Riolo CS, Koopman JS, Chick SE. (2001). Methods and measures for the description of epidemiologic contact networks. *J Urban Health*, 78(3), 446-57.
101. Friedman, S.R., Neaigus, A., Jose, B., Curtis, R., Goldstein, M., Ildefonso, G., Rothenberg. R.B., Des Jarlais, D.C., (1997). Sociometric risk networks and risk for HIV infection. *Am J Public Health*. 87(8), 1289-96.
102. Weir, S.S., Pailman, C., Mahlalela, X., Coetzee, N., Meidany, F., Boerma, J.T. (2003). From people to places: focusing AIDS prevention efforts where it matters most. *AIDS*, 17(6), 895-903.
103. Potterat, J.J., Rothenberg, R.B., Muth, S.Q., (1999). Network structural dynamics and infectious disease propagation. *Int J STD AIDS,* 10(3),182-5.
104. Friedman, S.R., Bolyard, M., Mateu-Gelabert, P., Goltzman, P., Paulowicz, M.P., Singh, D.Z., Touze, G., Rossi, D., Maslow, G., Sandoval, M., & Flom, P.L. (2006). Some data-driven reflections on priorities in AIDS Network Research, *Aids Behav,* 11, 641-651.
105. Frost, S.D. (2007). Using sexual affiliation networks to describe the sexual structure of a population. *Sex Transm Infect.*, 83 Suppl 1:i37-42.
106. A Practical guide to empowerment, UNHCR Good Practices on Gender Equality Mainstreaming, June 2001.
107. 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)5:553-562.

108. Roberts B, Ocaka KF, Browne J, Oyok T, Sondorp E (2008). Factors associated with post-traumatic stress disorder and depression amongst internally displaced persons in northern Uganda, BMC Psychiatry 8:38 doi:10.1186/1471-244X-8-38.
109. Kalisya LM, Justin PL, Kimona C, Nyavandu K, Eugenie KM, Jonathan KML, Claude KM, Hawkes M (2001). Sexual Violence toward Children and Youth in War-Torn Eastern Democratic Republic of Congo, Polsone (6)1.
110. Morgos D, Worden W, Gupta L, (2007) Psychosocial Effects Of War Experiences among Displaced Children In Southern Darfur. Omega, 56(3) 229-253.
111. Stark L, Roberts L, Wheaton W, Acham A, Boothby N, Ager A, (2009) Measuring violence against women amidst war and displacement in northern Uganda using the "neighbourhood method". J Epidemiol Community Health (64) 1056e1061.
112. Bacchi C. (2004) Gender/ing impact assessment: can it be made to work? Journal of Interdisciplinary Gender Studies, 9:93–111.
113. Connell RW. (2006) Advancing gender reform in large scale organisations: a new approach for practitioners and researchers. Policy and Society, 24:1–21.
114. Flood M, Pease B. Undoing men's privilege and advancing gender equality in public sector institutions. Policy and Society, 2006, 24:119–138.
115. Policy approaches to engaging men and boys in achieving gender equality and health equity. WHO July 2010
116. Welsh, P. (2008) Men aren't from Mars: unlearning machismo in Nicaragua. London, Catholic Institute for International Relations, 38–48.
117. Pulerwitz J, Barker G, Segundo M. Promoting healthy relationships and HIV/STI prevention for young men: positive findings from an intervention study in Brazil. Horizons Research Update. Washington DC, Population Council, 2004.
118. Jewkes R, Wood K, Duvvury N. (2008). Impact of Stepping Stones on HIV, HSV-2 and sexual behaviour in rural South Africa: cluster randomized controlled trial. BMJ, 337:a506.
119. Human Development Report (2010), United Nations Development Programme http://hdr.undp.org/en/

Appendix A

***Cycle of sexual violence in the life of a woman*.**



Adopted from “Researching violence against women: A practical guide for researchers and activists”, P10.

Appendix B

Human Development Index for the countries where mass rape has recently occurred (Combined with Gender Inequality Index & Maternal Mortality Rates)

Country	HDI Rank	GII Rank	GII	MMR
Somalia	N/A	N/A	N/A	1,200
Zimbabwe	169	105	0.705	790
Congo DRC	168	137	0.814	670
Burundi	166	79	0.627	970
Mozambique	165	111	0.718	550
Chad	163	N/A	N/A	1,200
Liberia	162	131	0.766	990
Sierra Leone	158	125	0.756	970
Afghanistan	155	134	0.797	1,400
Sudan	154	106	0.708	750
Rwanda	152	83	0.638	540
Cote D'Ivoire	149	130	0.765	470
Haiti*	145	119	0.739	300
Uganda	143	109	0.715	430
Myanmar	132	N/A	N/A	240
Bangladesh	129	116	0.734	340
Pakistan	125	112	0.721	260
Cambodia	124	95	0.672	290
East Timor	120	N/A	N/A	370
India	119	122	0.748	230
Guatemala	116	107	0.713	110
Nicaragua	115	97	0.674	100
Vietnam	113	58	0.53	56
Indonesia	108	100	0.68	240
Sri Lanka	91	72	0.599	39
El Salvador	90	89	0.653	110
Algeria	84	70	0.594	120
Turkey	83	77	0.621	23
Brazil	73	80	0.631	58
Bosnia	68	N/A	N/A	9
Peru	63	74	0.614	98
Serbia	60	N/A	N/A	8
Croatia	51	30	0.345	14
Kuwait	47	43	0.451	9
Argentina	46	60	0.534	70
Cyprus	35	15	0.284	10

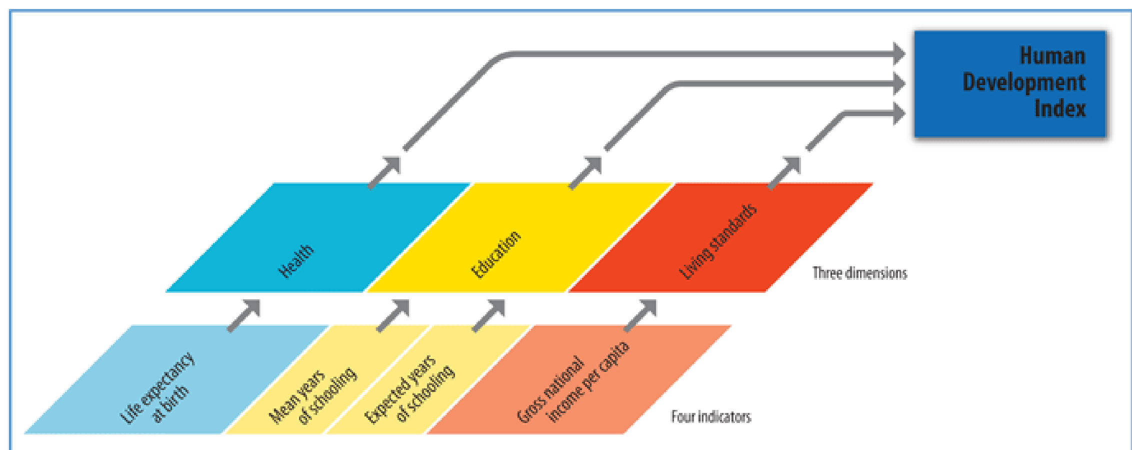
HDI= Human Development Index (N=168)*

GII = Gender Inequality Index (N=138)**

MMR= Maternal Mortality Ratio (100,000 per live birth) WHO (2008)

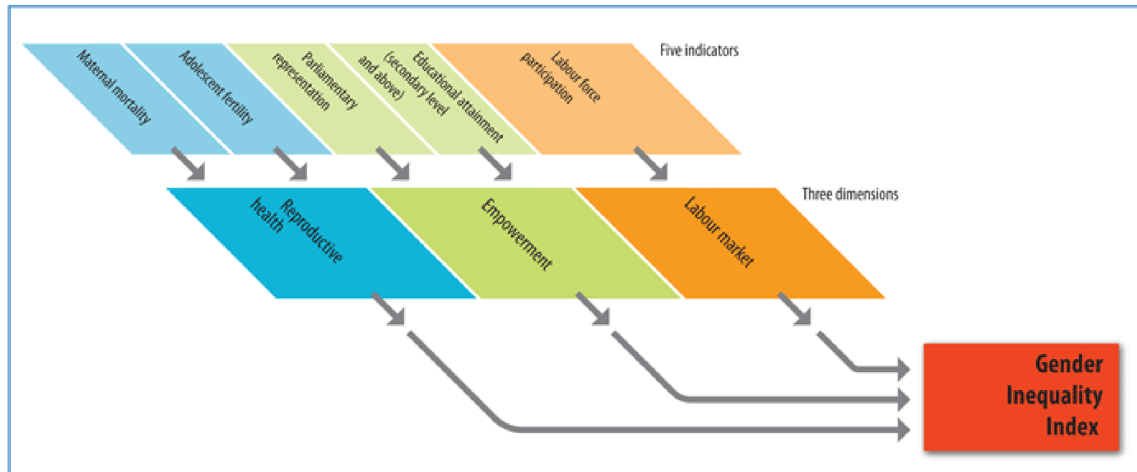
Red= Africa, Blue= Asia, Orange= Europe, Green= South and Central America, Purple=Middle East and North Africa

*Human Development Index: The first Human Development Report introduced a new way of measuring development by combining indicators of life expectancy, educational attainment and income into a composite human development index, the HDI. The breakthrough for the HDI was the creation of a single statistic which was to serve as a frame of reference for both social and economic development. The HDI sets a minimum and a maximum for each dimension, called goalposts, and then shows where each country stands in relation to these goalposts, expressed as a value between 0 and 1.



Sources for HDI:
Life expectancy at birth: UNDESA (2009d)
Mean years of schooling: Barro and Lee (2010)
Expected years of schooling: UNESCO Institute for Statistics (2010a)
Gross national income (GNI) per capita: World Bank (2010g) and IMF (2010a

**Gender Inequality Index: GII reflects women's disadvantage in three dimensions—reproductive health, empowerment and the labor market. The index shows the loss in human development due to inequality between female and male achievements in these dimensions. It ranges from 0, which indicates that women and men fare equally, to 1, which indicates that women fare as poorly as possible in all measured dimensions.



Sources:
Maternal mortality ratio (*MMR*): United Nations Children's Fund (2010c)
Adolescent fertility rate (*AFR*): United Nations Department of Economic and Social Affairs (2009d)
Share of parliamentary seats held by each sex (*PR*): Interparliamentary Union's Parline database (2010)
Attainment at secondary and higher education (*SE*) levels: Barro and Lee (2010)
Labour market participation rate (*LFPR*): International Labour Organization (2010d)

Source:
HDI: http://hdr.undp.org/en/statistics/hdi/
GII: http://hdr.undp.org/en/media/HDR_2010_EN_Table4_reprint.pdf
MMR: http://gamapserver.who.int/gho/interactive_charts/mdg5_mm/atlas.html

Appendix C

Map of countries with recent mass rape during conflict:

Africa (11) and Middle East (2)

Map of Asia (10)

Map of Europe (7)

Map of Central America (3)

Map of South America (3)