Published in final edited form as:

AIDS. 2008 August ; 22(Suppl 2): S95–103. doi:10.1097/01.aids.0000327441.66656.da.

Refocusing and prioritizing HIV programmes in conflict and post-conflict settings: funding recommendations

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Abstract

Conflict and post-conflict settings pose specific challenges to HIV prevention and care efforts. Whereas armed conflicts have decreased very considerably in number, the interactions between HIV epidemiology and conflict remain problematic. This review describes factors that affect HIV in conflict and post-conflict settings, identifies challenges to addressing HIV, and presents actionable and measurable programming and funding recommendations that can be implemented immediately. Funding priorities include prevention and care efforts such as the provision and monitoring of universal precautions for HIV infection, health services for sexual violence and antiretroviral therapy. Policy efforts should prioritize enforcing appropriate conduct by peacekeepers and aid workers, interventions targeted at specific phases and contexts of conflicts, supporting the continuity of programmes from emergency to post emergency and reconstruction efforts and simplifying and accelerating funding mechanisms.

Introduction

Conflicts around the world increased steadily after World War II until the end of the Cold War [1] as demonstrated in Fig. 1 by Uppsala Universitet Conflict Database, a group focused on tracking ongoing conflicts all over the world. Although the Human Security Report has noted an overall reduction in conflicts around the world since 1992, many African conflicts continued until 2002, after which a speedier decline has taken place [1]. The existence and aftermath of these conflicts create challenges for addressing an already difficult HIV/AIDS pandemic. At the Toronto AIDS Conference in 2006, the United Nations High Commissioner for Refugees (UNHCR) and the United Nations Children's Fund (UNICEF) reported that between '8–10% of people living with HIV/AIDS are affected by conflict, humanitarian crisis and/or displacement' [2].

This review describes factors that affect HIV in conflict and post-conflict settings focusing on the African continent, identifies challenges to addressing HIV, and presents actionable and measurable programming and funding recommendations that should be implemented immediately.

Conflict compromises national and local infrastructures, thereby destabilizing communities. This is a complex issue with many factors that both contribute to and compromise social stability. Commercial transport of goods and people is often obstructed or heavily restricted, reducing access to goods and mobility of populations. Disruption of employment is common and leads to loss of income, often stimulating parallel market economies for scarce and much demanded commodities. Food processing and distribution are halted, creating shortages and threatening subsequent malnutrition. Socially, families are often separated by force, voluntary or involuntary mobility or death. Communities can be destroyed, changing important systems of support and altering social norms [3,4]. Nevertheless, affected people have formed and come to rely upon new, tightly connected social groups rooted in shared traumatic experiences. Conditions of conflict produce numerous and urgent needs for conflict-affected populations. Historically, relief efforts have appropriately prioritized food, shelter, water and security. Although the latter are urgent and essential, HIV control has also become increasingly important to address. The effect conflict has on HIV, and subsequently the effect HIV has on conflict-affected populations, is difficult to discern. Investigating these issues is inherently problematic, resulting in data that vary widely in quality, bias and focus. Mass population movements and the differential survival of HIV-positive individuals in conflict settings potentially introduce bias in prevalence data. Responding to the dearth of information in this context could greatly improve evidence-based HIV programming.

In many cases, discussions of conflict and HIV arouse images of the Congo, the civil war in Rwanda, or the marauding troops in Ethiopia. Especially capturing attention with regard to HIV are stories of disastrous sexual violence, sexual exploitation and human rights violations. Although these are extraordinarily important issues that warrant immediate attention, any understanding of HIV in conflict and post-conflict settings requires consideration of a wider variety of issues. These include access to preventive services such as voluntary counselling and testing (VCT) and prevention programmes, treatment and care for HIV and related diseases, the influence and effects of soldiers, peacekeepers and humanitarian workers, increased vulnerability of women and children and the breakdown of infrastructures and traditional social networks.

Does conflict inevitably lead to increased prevalence and incidence of HIV?

A number of factors affect the spread of HIV at a population level. These include HIV prevalence within affected populations before conflicts, HIV prevalence in host communities, the length of conflicts or displacement in host communities, disruption in movement and transportation, and the level of interaction between the host and displaced communities (T. Ellman, 2007, personal communication) [5]. Prevalence data from Angola, southern Sudan and Sierra Leone, for example, indicate that regions with major conflict can have lower HIV prevalence compared with their relatively stable neighbors [5,6]. In the case of Angola, this is probably caused by restricted movement (i.e. closed roads and borders, disabled transportation, isolation to rural, low-prevalence areas) preventing the spread of infections [5,7,8].

Immediately following conflicts, drivers of the epidemic can change rapidly. Increased HIV incidence has been reported from some post-conflict settings, such as Angola, Mozambique and South Africa [9,10]. When transportation begins to open after conflict ends or subsides, previously low HIV prevalence populations can move from rural to urban centers, formerly separate populations begin mixing again, and increased resources create power structures that may facilitate sexual exploitation.

Funding needs for specific conditions and phases of conflicts

Epidemics arising in conflict and post-conflict settings require specific responses that are appropriate for their particular characteristics [5,7,11]. The diversity of conditions and

therefore the variability of required responses creates considerable challenges for the design and evaluation of prevention programmes (Recommendation 2).

Each conflict, and the epidemic of HIV and other infectious diseases that follows, is extensively contextual and specific to political, geographical, cultural and temporal conditions. Conflicts are dynamic emergencies that change and progress over time. Consequently, challenges arise in establishing response procedures to encompass the stages of the conflict-affected epidemic. The United Nations (UN) identifies three stages of a conflict: emergency, post-emergency and reconstruction [12], with the last stage marked by resettlement and repatriation. These allow for and require different priorities and strategies for addressing the needs of conflict-affected populations. Current implementation guidelines for responses to HIV in a conflict are vague and imprecise (L. Bruns, 2007, personal communication). They do not incorporate the detail required to respond effectively. The lack of specific direction can cause inappropriate programmes and inefficient use of scarce resources.

The different stages of emergencies have funding needs that require support at strategic time points. Current funding mechanisms and donor fatigue, however, often create challenges in securing support. Donor groups generally maintain a scope of funding, focusing on specific fields or interests. In emergency, post-emergency, and reconstruction phases, funding needs span a large spectrum of fields and interests, requiring support that extends beyond the scope of one donor group. For example, services such as ART require long-term, consistent support. Donors providing care to refugees in host countries may not offer support for ART programs after resettlement or repatriation (L. Bruns 2007, personal communication). Hence, refugees may find inferior services in countries of resettlement, potentially affecting their decision or will to resettle.

At the onset of an emergency, funders are often more willing to support a response. Initial funding is usually sufficient for only 1 or 2 years and is focused on emergency stages. A drawn-out post-emergency stage suffers from donor fatigue. For example, it is hard to convince donors to support programmes for refugees who have been living in camps for over a decade.

The difficulties in securing funds that transcend different stages or extend beyond initial periods result in programming gaps. Although funds can eventually be secured and distributed, the inconsistency compromises programme continuity. Donor support could prove crucial to bridging gaps between emergency and development stages (Recommendation 6).

Increased vulnerability and exposure to HIV infection

Conflict-affected populations are often at increased risk of HIV infection [5,7,11]. Increased risk does not, however, guarantee increased HIV incidence. Mock *et al.* [7] characterize the heightened risk as a combination of two sub-factors: vulnerability and exposure opportunity. Vulnerability is the susceptibility of an individual or population to have a negative outcome result from an event (such as exposure to the virus), whereas exposure opportunity denotes the individual or population's likelihood of experiencing this event. Mock *et al.* [7] explain that conflict may increase vulnerability by increasing poverty and malnutrition and breaking down health services and social infrastructure leading to reduced public health services. For example, a women suffering from malnutrition will experience a diminished immune system that lacks any natural physiological resistance to contract HIV. In addition, she may not receive any information from health programmes about protecting herself from HIV.

Conflict may also increase exposure opportunity by creating environments of physical trauma, increased contact between military and civilian populations, increased sexual violence and exploitation, creating mass population movements and mixing and dissolving public health services that include HIV prevention and education. For example, a rural man may mix with

urban populations who generally have higher prevalence of HIV [6]. Any sexual activity would constitute more exposure opportunity. From the experience of countries that maintain low HIV prevalence throughout conflict, however, one must view the interplay between conflict and HIV as much more complex and contextual than indicated by the mere addition of these sub-factors [7,11].

Breakdown of societal infrastructures is a major problem

The destruction of existing health systems brought about by conflict severely restricts health service provision to local populations. Whereas existing health services are generally strained even before mass violence erupts, conflict exacerbates the deficiencies of healthcare for local and host populations. A study conducted in Cote d'Ivoire [13], for example, documented a reduction of health staff by 88%, 75% and 88% in the central, north and west regions with conflict, respectively, whereas population reductions were much lower, by 40%, 25% and 55%, respectively. The dramatic reduction in health workers, who are essential to many HIV treatment and care programmes, severely limits the capacity of providing such services. Equipment, diagnostic materials and medicine shortages associated with the immediate onset of conflict compound the impact of human resource shortages. Fleeing medical personnel directly and negatively affect the ability of health providers to address HIV prevention and treatment [13].

The distinct needs of refugees: who meets them?

It is essential to understand the different conditions of refugees and internally displaced persons (IDP). Refugees cross state borders into the governance of a foreign state. IDP flee their homes and cities but do not leave their country, nor the jurisdiction of their government. Although both groups are displaced often for similar, if not the same, reasons, there are fundamental differences between these groups. Refugees are afforded protection under certain laws and agreements such as the 1951 Refugee Convention and 1967 Protocol relating to the status of refugees [14]. They are included in the scarce funding measures, and provided certain services often in the contexts of refugee camps. IDP are less formally recognized, are excluded from legal protection as refugees, are excluded from conventional refugee funding and do not have access to refugee services. In addition, they often remain under the rule of the government or group that displaced them initially. Because of these differences, there are distinct conditions that both drive the HIV epidemic and create challenges in addressing it for IDP. Although we have considered IDP in this paper, their actual funding and programmatic needs are beyond its scope.

Who should provide HIV prevention and treatment for refugees? If one may assume a short conflict and speedy repatriation, the responsibility potentially falls on countries of origin. The average length of stay in refugee camps before repatriation has reached 17 years worldwide [15], a problematic length of time. Diverse factors affect the length of stay, including the stability of the home country, the hospitability of the host country, and perhaps in some cases the reluctance of refugees to return because of the superior services and security offered in refugee camps. Refugees can establish communities and networks in camps, relying on those who have had similar traumatic experiences for support. Services that are rarely available in countries of origin during and post-conflict can sometimes be offered in refugee camps, such as ART. These advantages become incentives to remain in camps, delaying repatriation. With extensive stays in host countries and the inability of conflicted governments to provide services for their people, the responsibility then becomes that of the host governments. In 2004, however, of the 29 countries in Africa hosting 10 000 refugees or more, only 10 listed specific HIV prevention activities for refugees [5].

The inadequate national attention to HIV prevention among refugees is worsened by the exclusion of refugees from programmes funded by some of the major world funding bodies (Global Fund and Multi-country HIV/AIDS Program). The Great Lakes Initiative on HIV/AIDS funded by the World Bank is an example of a well-funded regional approach to addressing HIV/AIDS in conflict-affected regions [16]. The Great Lakes Initiative on HIV/AIDS focuses on using cross-border, regional strategies for addressing HIV in the Great Lakes region, which has been highly affected by conflict. There is specific attention paid to refugees and other displaced persons. The effectiveness of this initiative has yet to be determined. The concept of shared refugee caseloads across countries would seem promising, especially in addressing HIV programming and should be replicated if proved effective.

Already strained health services in resource-poor host countries may not have the infrastructure and human resource capacity to provide for refugees despite the availability of funds. This creates challenges in working with host governments and health systems to address the needs of refugees. Usually, non-governmental organizations (NGO) and the UNHCR have filled the service gaps that national and local governments are unable or unwilling to accommodate. The UNHCR also coordinates relief efforts involving all organizations: governments, NGO and UN agencies. Although the efforts of these different international groups are essential in mounting an effective response, encouraging and defining commitment from host governments to offer treatment and care for refugees is also critical.

Excessive requirements to secure funding

Attempts by governments, NGO or UN agencies to provide programmes are often inhibited by the bureaucratic procedures required to apply for, secure and receive funds. Although the flow of money to and from donors, governments, UN agencies and international funders is multilateral and multidirectional, a common frustration arises in extensive procedural demands, to a point that they become a disincentive to work with conflict-affected populations (D. Peacock, 2007, personal communication). The resultant friction and delays weaken efforts aimed to assist conflict-affected populations.

Only existing and practised groups are able to navigate the procedural demands for funding (T. Ellman, 2007, personal communication). Even well-established NGO rely on consultants to assist in application processes. By requiring such extensive expertise, funders are denying civil society the opportunity to participate in changing the course of HIV in their own communities. It should be a priority to bolster civil society responses through these funding efforts, giving local community members access to funding that can create and implement programmes originating from the communities (Recommendation 7).

Soldiers, peacekeepers and humanitarian aid workers

Militaries, peacekeeping forces and humanitarian aid workers should be educated about HIV and its prevention before their arrival in the field. HIV prevention should include counselling, condom distribution and systems that deter and prosecute any abuse or exploitation of host community members or displaced populations.

Governments are generally unwilling to publish HIV prevalence data for their military forces, possibly because of state security concerns. A recent analysis by Ba and colleagues [17] showed that military personnel in 21 African countries have almost twice the chance of being HIV infected as civilian populations [odds ratio (OR) 1.97; 95% confidence interval (CI) 1.58–2.45]. The odds ratio increases to more than six when militaries are compared with civilians of the same age and sex (OR 6.09; 95% CI 4.47–8.30) [17]. The review's inclusion of 21 countries throughout Africa with consistently higher prevalence compared with civilian groups suggests that militaries should be targeted for HIV interventions. Higher HIV prevalence in

militaries is partly the result of the concentration of high-risk age and sex groups (men aged 18–24 years; low levels of maturity, high levels of aggression, susceptibility to peer pressure, heavy substance use, long periods away from families and the reverence for risky behavior). These characteristics are thought to result in high levels of sexual and other risk taking [18–20].

After failed attempts of the west at international peacekeeping in Somalia, and neglecting to intervene in Rwanda in the 1990s, international focus was placed on regional peacekeeping [21] creating new and dynamic issues when addressing HIV prevention. Troops deployed internationally have diverse levels of training and education, and are often assigned to areas of high HIV prevalence. Peacekeeping forces are combinations of soldiers, militaries and national and local police, resulting in mixed levels of understanding of HIV. These conditions place troops at greater likelihood of engaging in risky behaviors such as commercial sex and sexual contact with host communities.

Humanitarian aid workers face similar conditions that place them at risk of contracting HIV. Mixing with populations of higher HIV prevalence and relative wealth and power facilitates risky behavior. Reports of sexual exploitation by UN troops and humanitarian aid workers have caused outrage [22–24]. An internal investigation found that in the Democratic Republic of Congo, members of the UN offered money, food and jobs in exchange for sexual encounters with young girls [24]. Even more alarming is the inability of the supervisory agencies to prosecute offenders [25,26]. From 2004 to 2007 almost 200 UN peacekeepers were disciplined for sexual offences, but none were prosecuted [26]. Accountability to enforce appropriate conduct of UN peacekeepers and humanitarian aid workers is lost between the overseeing forces of the UN and the leaders of the militaries and officials of the countries of origin. An egregious example was when Special Representative to the Secretary-General, Yasushi Akashi, shrugged off allegations of sexual exploitation by UN workers in Thailand with the statement ‘boys will be boys’ [27]. The brushing-off of these allegations without investigations or disciplinary actions severely undermines training for and expectations of peacekeepers to uphold a certain standard of behavior. Enforcing rules that detail appropriate conduct for soldiers could reduce instances of sexual abuse and exploitation, thus reducing the risk of contracting HIV among refugees, peacekeepers and humanitarian aid workers (Recommendation 4).

HIV prevention and education programmes among militaries in Africa are inadequate [20, 21]. The programmes that are in effect are rarely monitored or assessed. In a review of journal articles assessing HIV prevention programmes for the military, Russak *et al.* [20] found only eight descriptions of monitoring, most others being rejected from the publication for lacking supporting data or any evaluation. The authors noted the lack of infrastructure to perform such assessments. Funders also did not require them, and militaries did not want to release evaluation information for security reasons [20]. Whatever the explanation, it is important that future efforts are made to target militaries for prevention messages and assess the effectiveness of the interventions.

Sexual violence, exploitation and mental health needs

Data on the prevalence of sexual violence in conflict and post-conflict settings are scarce. Pre-existing violent conditions, underreporting, migration, stigma and deaths make it difficult to assess sexual violence and even more difficult to address. Greater focus on issues of sexual violence in research agendas is an urgent priority, in particular to identify efficacious interventions to prevent and ameliorate the outcomes of such events.

In conflicts involving ethnicity, sexual violence and systematic rape as weapons of war have been extensively documented [28–32]. Mass rape and sexual violence in the form of genital

mutilation by stick, knife or gun [32,33] is used to dehumanize communities, establish mental and physical dominance and is a form of ethnic cleansing or replacement. Although men are not excluded from these experiences, women and children are most vulnerable and experience these violations at much higher rates [34]. In conflict settings, sexual violence is a major concern, but current responses are severely inadequate in relation to the extent of the problem [35] (Recommendation 5).

The heightened vulnerability of women and children stems primarily from their elevated risk of rape and sexual exploitation. As conflict spreads, communities are forced apart and many heads of households are separated from their families either through forced migration or death. Women and children assume roles as heads of household, taking on responsibility for providing food and water, security, shelter, clothing and other needs for their remaining family members. These needs, combined with the women and children's lack of income-generating potential creates an environment conducive to sexual exploitation. The destruction of social norms during conflict facilitates a woman or child's willingness or need to engage in transactional sex [34], lacking the social cohesion and guidance that might otherwise help support and protect individuals from risky behaviors.

Each act of rape and sexual violence is an atrocity. The relationships between HIV epidemics, mass rape and sexual violence are, however, not well understood. Most available data include anecdotal evidence or biased data collection and analysis. Increased rates of forced sex are likely to be associated with increased rates of HIV transmission because of its violent nature, leading to assumptions of increased HIV prevalence on a population level, but Spiegel *et al.* [6] argue that there are no data to support this. In a recent systematic review of existing HIV prevalence data among conflict-affected populations, Spiegel *et al.* [6] presented evidence showing that wide-scale rape during conflict does not necessarily increase HIV prevalence at the population level. Spiegel *et al.* [6] examined prevalence data from seven countries of recent conflict: the Democratic Republic of Congo, southern Sudan, Rwanda, Uganda, Sierra Leone, Somalia and Burundi. The authors' analysis considered rural and urban epidemics and compared HIV prevalence of conflict-affected populations with non-affected populations as well as refugee populations with host communities. The data presented challenge many of the historical understandings of the effects of mass rape on HIV incidence. The authors list additional factors within the experience of rape that refute assumptions of its role in the HIV epidemic: the HIV status of the perpetrator and victim, the probability of transmission, the number of rape survivors who perish in conflict and the number of rape survivors who become infected. They call for the comparison of HIV incidence and prevalence caused by rape with that of the overall population. HIV incidence data in conflict zones are, however, extremely scarce, and in order to compare epidemiological trends between conflict and peaceful conditions, more research is needed. One avenue of research could address the possibility that so many HIV-positive individuals have been killed in conflict, skewing measures of prevalence. In the case of conflict and HIV, the new analysis by Spiegel *et al.* [6] of rape during conflicts calls for a better understanding of the complex and contextual factors than traditionally investigated. There is clearly a need for further investigation.

Nonetheless, Jewkes [36] calls for a comprehensive response to rape in place of concentrating solely on preventing HIV infection. These services must include: ‘prevention, or termination, of pregnancy; treatment for sexually transmitted infections; psychological support; and treatment for injuries, including reconstructive surgery’ [36]. Conflicts present challenges for distributing post-exposure prophylaxis. Post-conflict settings increasingly have these services available, but like other prevention services in these settings, uptake is low. Access to post-exposure prophylaxis is reported as ‘insufficient’ with levels of 33% and 18% in southern Africa and west Africa, respectively. The central and east regions offer ‘reasonable’ access,

with 64% and 57%, respectively [37]. It is likely that in the case of refugee camps, insufficient knowledge of such services may play a role in low uptake.

Jewkes [36], in response to the analysis by Spiegel *et al.* [6], made it clear that his review does not take into consideration the lasting effects of conflict and systematic rape on women and HIV prevalence. In post-conflict settings, rape survivors can be shunned by families and community members and isolated from support networks, facilitating their engagement in risky behaviors [9] such as commercial or transactional sex [36]. In addition, the trauma rape survivors experience can impact greatly on mental health, which is a predictor of HIV risk behavior. Addressing mental health needs for all refugees who have experienced trauma is important, but especially so for rape survivors and those who experience sexual exploitation.

HIV prevention and sexual and reproductive health services

The breakdown of health infrastructures during and after conflict results in clinical practices that do not effectively prevent the potential transmission of HIV. Gloves, sterilizing equipment, sterile needles and blood testing for transfusions are simple, essential tools for prevention and yet they can be unavailable or overlooked (T. Ellman, 2007, personal communication; P.B. Spiegel, 2007, personal communication). In the chaos and strain characteristic of medical centers affected by conflict in local or host countries, these strategies, although easy to effect, lose priority and can fall by the wayside. According to the UNHCR data, universal precaution availability is high (77–100%) among camps in four regions (central, west, east and south) of Africa. What remains unknown, however, is the consistency with which these precautions are implemented and their availability in health centers that are not monitored by the UNHCR. Consistently implementing and monitoring universal precautions would measurably reduce HIV incidence (Recommendation 1).

The existing data for access to services such as VCT and the prevention of mother-to-child transmission show extreme variability between camps and regions. Some settings have no access to prevention services whatsoever, whereas others have limited service provision [37]. Data collection is such that the mere presence of services indicates access, but actual uptake and service utilization may vary greatly from access [38]. The use of rapid HIV tests for VCT and the prevention of mother-to-child transmission services based on single-dose nevirapine regimens are relatively easy to deliver in the context of routine care, but in conflict and post-conflict settings these are not widely used or are not available.

Essential to consider for all people, but especially displaced populations, is the right to voluntary and confidential counselling and testing. In settings with such challenges, it is common to overlook the formal requirements on which VCT is theoretically based. The central role of free choice, informed consent and confidentiality must not be compromised. In addition, the quality of counselling and testing services can be very poor in conflict and post-conflict settings, and inadequate in addressing the special needs of rape survivors, children, or those in need of ongoing psychosocial support. Testing and counselling can not only be an entry into HIV prevention, care and support, but can also create a link to mental health services where these are available.

Sexual and reproductive rights are an area of particular vulnerability for women in conflict and post-conflict settings because of rape, sexual and intimate partner violence. Strengthening reproductive health service provision to women and girls would improve health outcomes considerably and merits further examination as a public health priority.

HIV treatment and care

Treatment and care for HIV infection is a process complicated by low levels of resources, troubled medical infrastructures and mobile populations. Consequently, providing antiretroviral drugs to displaced populations proves to be extraordinarily difficult for all sectors. In the case of IDP migration, cultural differences (including language) and the availability of services produce obstacles. For refugees seeking treatment, issues arise around whether antiretroviral drugs are provided by the country of origin or the country of asylum, and whether refugees are included in asylum country AIDS programmes. Clinical Guidelines on Antiretroviral Therapy Management for Displaced Populations (GART-DP) were developed in 2007 by the Southern African HIV Clinician's Society and the UNHCR [39]. In South Africa, providing ART to asylum seekers is problematic. Examples include refugees who have accessed antiretroviral drugs in Botswana that are not available in South Africa, and refugees from the Democratic Republic of Congo with alarmingly low CD4 cell counts who will be returning to their home country where antiretroviral drugs are unavailable (F. Venter, 2007, personal communication) [40].

A displaced person's claim to ART and other HIV services is secured by international human rights law and agreements [41,42], and should not be denied on the basis of their location, immigration status, support network, or migration habits [39]. Unfortunately, this is not always observed, even in countries as well resourced as South Africa and Botswana. In South Africa, the reason is often the xenophobia of healthcare workers (L. Bruns, 2007, personal communication), but elsewhere, such as Botswana, the exclusion of refugees from receiving treatment can stem from their exclusion from national HIV/AIDS plans.

Although difficulties exist, ART provision for displaced populations is available in some camp settings; but again, service utilization varies greatly, and ART uptake in camp settings must be improved. Two examples include the refugee camps Lukole in Tanzania and Gihembe in Rwanda. In 2006, these refugee camps had populations of 63 896 and 17 699, respectively. In that same year, however, ART was only being accessed by two and 39 refugees, respectively [37]. The reasons for low uptake may include worries about confidentiality and stigma, poor services, or other complications related to being displaced, such as the prioritization of other needs. The poor uptake of ART calls for increased support to continue roll-out to displaced groups (Recommendation 3).

Programme recommendations

Developing effective, efficient and replicable programmes to address the myriad factors affecting HIV in conflict and post-conflict settings is challenging. Focused HIV interventions can be effective in conflict-affected communities but can be seen to sacrifice comprehensive or primary health needs. The different levels and sectors of the conflict-affected epidemic can complicate selecting targets for interventions. The following recommendations prioritize efforts and aim to guide programming decisions towards promoting sustainable and effective change.

1. Institute and monitor universal precautions for HIV infection in clinical settings. The provision of basic universal precautions is simple, but lacking in many clinics, overshadowed by high demands and low resources. Providing these precautions requires monitoring their appropriate use, which can reduce new infections resulting from clinical care.
2. Target conflict-affected populations for interventions specific to the emergency, post-emergency and reconstruction stages and their context. The diversity of conflicts requires immediate, creative and contextual responses that must be well planned to

adapt as the emergency and conditions progress. These strategies must be specific to, but also integrate, the different phases. Conflict-affected populations are prime recipients of treatment, prevention and education. The opportunity to reach these groups must be realized.

3. Provide ART for HIV-positive individuals. People who flee their homes to escape conflict often cross geographical or national boundaries that change access to ART. The onset of a conflict can completely remove existing antiretroviral drug provision, or may cause displaced individuals to migrate to or from areas where antiretroviral drugs are available. The practical task of continuing treatment for individuals who have previously initiated ART and other HIV-related diseases such as tuberculosis becomes very immediate. Whether IDP, refugees, or people present in the conflict areas, these populations must be directed to appropriate services for the continuity of necessary treatment.
4. Enforce appropriate conduct by regional peacekeepers and humanitarian aid workers. Accountability on this front is often lost between coordinating bodies such as the UN and the heads of the contributing militaries or other groups. Appropriate mechanisms of enforcement grounded in human rights must be established or clarified, concentrating on the appropriate prosecution of offenders. Education programmes for peacekeepers and humanitarian workers may be helpful interventions.
5. Provide health services for sexual violence. This should include access to post-exposure prophylaxis and emergency contraception for rape survivors. Advocacy is needed for access to emergency contraception and termination of pregnancy. These services are often illegal or unavailable, but can severely reduce the long-term effects of sexual violence, preventing a lifetime of increased risk.
6. Fund relief for emergency, post-emergency and reconstruction efforts. The current funding environment permits gaps in services and programmes that span three stages: emergency, post-emergency and reconstruction. Ensuring the continuity of programmes over the entirety of these crucial periods increases their impact and effectiveness.
7. Create funding mechanisms that simplify and accelerate funding processes. These mechanisms can streamline responsive funding and increase interest and efficiency for working with conflict-affected populations. Strategies must incorporate bolstering communities and civil society, ensuring they have access to funds and development of programmes, not solely the governments, NGO and research groups.

In conclusion, the complexities of HIV epidemics affected by conflict create a wide range of priorities on which to focus resources. From small-scale interventions to large-scale policy changes, the challenges arise in developing and selecting programmes that will have the largest impact for affected populations while efficiently utilizing scarce resources. The authors feel the recommendations laid forth in this paper are rooted in available evidence, reported experiences of conflict-affected populations and field experience of experts who contributed their thoughts and suggestions.

Acknowledgments

The authors would like to thank all of the participants in the 2007 UCLA Social Justice, Human Rights, and HIV Prevention Think Tank meeting in Sydney, Australia, especially Dr. Francois Venter for serving as the discussant. We would also like to thank Dr. Paul Spiegel and Dr. Tom Ellman for their insight and Laurie Bruns for her assistance shaping the article. We thank The Ford Foundation for supporting the preparation of this article. The opinions expressed are those of the authors and not of the foundation or any employee of the foundation.

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Fig. 1. Active conflicts by conflict type and year 1946–2006

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- Extrasytemic armed conflict;
- internal armed conflict;
- interstate armed conflict;
- internationalized internal armed conflict.