

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda



M Westerhaus

ABSTRACT

For twenty years, a region of northern Uganda known as Acholiland has been heavily affected by war, leading to the formation of internally displaced people's camps, rape, transactional sex and child abductions. While it is clear that the war has had onerous consequences for the health of the Acholi people, the specific impact of the war on HIV transmission remains unclear, as the epidemiological evidence presents an ambiguous picture of HIV prevalence patterns. Other than a few non-governmental organization reports, very little qualitative data exists about the impact of HIV on the Acholi population. Attempting to formulate a clearer narrative of HIV transmission in Acholiland, this paper jointly analyses the historical and political context of the Acholi people and the war, the epidemiologic evidence of HIV prevalence patterns, and the ethnographic perspectives of Acholi healthcare workers and patients living with HIV/AIDS. Juxtaposing these sources of information allows for the emergence of a rich understanding of HIV in Acholiland. It is argued that three specific forms of violence – physical, symbolic and structural – create vulnerability to HIV infection in Acholiland, although to variable degrees dependent on location. The ethnographic evidence presented regarding HIV's impact on Acholiland suggests that an incorporation of historical, political, cultural and social factors must form the backbone of efforts both to understand HIV transmission and design strategies for curbing the epidemic in war settings.

Key words: War, socioeconomics, HIV prevention, social science, Uganda.

RÉSUMÉ

Pour une durée de vingt ans, une région du nord de l'Ouganda nommé Acholiland fut fortement touchée par la guerre. Cette situation a entraîné des camps de personnes déplacées à l'intérieure du pays, des viols, des rapports sexuels transactionnels et des enlèvements d'enfants. Il est évident que la guerre était à l'origine des conséquences pénibles sur l'état de santé du peuple Acholi. L'impact de la guerre sur l'infection au VIH reste toujours vague étant donné que l'évidence épidémiologique présente une image ambiguë des tendances de prédominance du VIH. En dehors de rapports de quelques organisations non-gouvernementales, il existe très peu de données qualitatives en ce qui concerne l'impact du VIH sur la population Acholi. Pour tenter de formuler un récit plus claire de l'infection au VIH à Acholiland, cette communication va, à la fois, analyser le contexte historique et politique du peuple Acholi et la guerre, l'évidence épidémiologique des tendances de prédominance du VIH et les perspectives ethnographiques du personnel de services de soins et des patients vivants avec le VIH/SIDA à Acholiland. La juxtaposition de ces sources d'informations permet une émergence d'une compréhension plus riche du VIH à Acholiland. On soutient que les trois formes de violence – physique, symbolique et structurale – créent la vulnérabilité à l'infection au VIH à Acholiland bien qu'aux degrés variables, cela dépend de l'emplacement. L'évidence ethnographique présentée par rapport à l'impact du VIH sur Acholiland nous apprend que l'incorporation des facteurs historiques, politiques, culturels et sociaux doit constituer le pilier des efforts afin de comprendre l'infection au VIH et de formuler des stratégies avec le but de freiner l'épidémie en situation de guerre.

Mots clés: Guerre, socio-économiques, prévention du VIH, Sciences sociales, Ouganda.

Michael Westerhaus is currently a resident in internal medicine in the Global Health Equity track at Brigham and Women's Hospital in Boston, USA. He has carried out clinical work and anthropological fieldwork in northern Uganda with a specific focus upon the intersection of war and infectious disease transmission and treatment.

Correspondence to: Michael Westerhaus, Department of Medicine, 75 Francis Street, Boston, MA 02115, e-mail: mwesterhaus@partners.org

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda

INTRODUCTION

In Acholiland of northern Uganda, an area plagued by twenty years of war, the construction of a coherent narrative of HIV transmission has proved elusive. Epidemiological information assembled by the Ugandan Ministry of Health and UNAIDS, largely based on antenatal surveillance, has provided a constricted and fragmented snapshot of HIV prevalence trends since 1993 (Uganda Ministry of Health, 2003; UNAIDS, 2004). Researchers at a large private hospital in Acholiland have consistently demonstrated a high HIV prevalence and surmised a linkage with the war (Accorsi *et al.*, 2001; Accorsi *et al.*, 2005; Fabiani *et al.*, 2006b). Yet, NGO reports claiming a heavy impact of HIV/AIDS on the local population have also been characterised as unsubstantiated and misleading (Allen, 2006; Lowicki-Zucca, Spiegel & Ciantia, 2005). Such conflicting declarations about the relationship between war and HIV transmission in Acholiland have left a rather muddled narrative of HIV transmission.

Disturbingly, but not unexpectedly, the voices of poor patients with HIV and their healthcare providers have been omitted from the discussion about how war in northern Uganda affects HIV transmission. Literature exploring HIV/AIDS in Acholiland is predominantly quantitative, leaving little room for social context and human experience. Regarding populations in war settings, Carolyn Nordstrom, a noted anthropologist, has written about the lives of poor individuals being “erased” (Nordstrom, 2004). The same may be said for people living with HIV/AIDS – analysis exploring HIV transmission is generally handed down, with the voices of HIV-infected individuals, who are often poor, *in absentia*. Putting war and HIV/AIDS together, as in Acholiland, creates a setting in which the voices of the poor are particularly vulnerable to marginalisation. Perhaps, it is this omission which has left such a confusing picture of HIV/AIDS transmission in northern Uganda.

Such omissions can be countered with anthropological analysis drawing on ethnographic fieldwork. Thus, this paper attempts to begin constructing a narrative of HIV transmission in northern Uganda that focuses upon the perspectives of the local community in Acholiland, in addition to the epidemiologic and non-governmental organisation (NGO) literature currently

relied upon. The anthropological perspective presented here is based upon two field visits of two months duration to Gulu district in northern Uganda, the first in July and August 2004 followed by a return in February and March 2006. Participant observation was the primary methodology used for this research in addition to an extensive literature review. Time in Gulu, a large region of Acholiland, was spent working in and seeing patients in a local hospital's AIDS clinic; carrying out a qualitative questionnaire with TB patients, many of whom are co-infected with HIV; visiting internally displaced people's (IDP) camps with local community leaders; and interviewing numerous healthcare workers, NGO staff and VCT counselors in medical facilities and organisations working on HIV prevention and treatment.

In striving to comprehend the complex interweaving of war and HIV transmission in northern Uganda, the task is far from complete. However, this paper offers an initial grappling with the lifeworlds of the Acholi people, in the hope of weaving a narrative of HIV transmission in Acholiland that reflects the melding of epidemiological evidence with the viewpoints of the people living with and working on HIV/AIDS in the region.

An indispensable gaze into the past and present of Acholiland

The region and town: Acholiland and Gulu

Four hours north of Uganda's capital of Kampala by road, the town of Gulu occupies a space in the heart of Acholiland, a region of northern Uganda along the Sudanese border where the Acholi reside (see Figure 1). The Acholi are part of the Luo people, who trace their roots to the Bahr-el-Ghazal region in southern Sudan. In the 15th century, the Luo migrated into northern Uganda, with some eventually settling into what is today known as Acholiland at the beginning of the 18th century (Nzita & Niwampa, 1995). Today, the majority of the Acholi, who make up 4.8% (1 145 357) of Uganda's population, live within the provincial districts of Gulu, Kitgum, and Pader that comprise Acholiland. For twenty years, these three districts have been deeply wounded by a war between the Ugandan army and the Lord's Resistance Army (LRA), an insurgency group. While the war has occasionally spilled out of Acholiland into the Lango and Teso regions, the bulk of the fighting and impact

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda



Source: United Nations Office for the Coordination of Humanitarian Affairs, 2006

on the civilian population has taken place within the boundaries of Acholiland.

Largely due to population shifts associated with the war, Gulu town, serving as the capital of Gulu district, has grown to be the second largest town in Uganda, with a population of 119 430, (Uganda Bureau of Statistics, 2003). Remarkably, given the town's context of war, a sense of vigor and vibrancy infuse life in Gulu, not unlike that of other Ugandan towns. A central market hums with vendors hawking worn second-hand clothing, watches, cleaning products, soap, radios, pots and pans, and staple foods – sweet potatoes, beans, cassava, rice, and millet. Elegant, brilliantly coloured fabrics demarcate the storefronts of tailor's shops. Bicycles, dilapidated cars, and boda-boda motorbikes maneuver across the dusty tarmac roads of central Gulu. Perhaps this vibrancy all serves as an outward manifestation of a strong shadow economy, so often associated with conflict regions (Nordstrom, 2004).

Both the long drive from Kampala through remote, arid terrain and the context of the war can create an

illusory sense of isolation in Gulu. Gulu's exclusion from the economic, health and educational development enjoyed by southern Uganda further bolster this imagined isolation. Yet, signs of interconnection with the world abound in Gulu and reveal that the sense of seclusion in Gulu is a myth. Locals fill internet cafes, which allow for connections with family and friends living in the Ugandan diaspora. Uganda's daily newspapers, *The Monitor* and *The New Vision*, arrive daily in Gulu. Truckers pass through with high frequency carrying food, petroleum and other cargo to northern Uganda and southern Sudan. The offices of international NGOs, such as the World Food Program (WFP) and Médecins Sans Frontières (MSF), are scattered throughout town, providing tangible reminders that Gulu's lifeworld is indeed interwoven within an international narrative of humanitarian aid.

Historically, social, political and economic networks between Acholiland and the world materialised far before the recent arrival of globalisation and humanitarian aid. Contact with outsiders has shaped Acholi society in sundry ways for the last three to four hundred years. When the ancestors of the Acholi moved into the land now referred to as Acholiland, they encountered the Langi people and eventually forced the movement of the Langi into what is today's Lira District (Nzita & Niwampa, 1995). In the late 17th century, idea exchange with the kingdom of Bunyoro-Kitara just south of Acholiland resulted in Acholi adoption of Bunyoro sociopolitical organisation characterised by chiefdoms. In the 1850s, Arabs connected with Khartoum introduced slave and ivory trade into Acholiland and incorporated the Acholi into socially disruptive economic networks that stretched great distances. The origins of the Acholi name have been traced to this period of time when the traders started using the term "Shuuli" to describe the people living in Acholiland. The slave traders were eventually supplanted in 1872 by representatives of the Egyptian administration, known as the Jadiya, who were bolstered by Britain's abolitionist spirit; however, the Jadiya proved even more oppressive and unjust and were driven out by 1888. All of these processes have been linked with the formation of an Acholi sense of ethnicity (Atkinson, 1989).

Shortly after the Arab slave traders arrived, the European explorers John Hanning Speke (1862) and

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda

Samuel White Baker (1863-64 and 1872-73) travelled through Acholiland, interacted with the Acholi people, and conveyed their experiences back to Europeans through writing. In reference to the Acholi, Speke wrote, "What politeness in the midst of such barbarism!!!" (Speke, 1863). Stereotyped observations, such as Speke's, paved the way for the racist ideologies that would buttress the colonial project. The arrival of colonialism, which lasted from the late 19th century to 1962, brought European domination and oppression to the Acholi (Finnström, 2003). It was during this period of time that the rigid concept of an Acholi tribe was developed by the British (Atkinson, 1989). Colonialism enshrined an unbalanced interconnectedness between the Acholi and the world, one that reinforced an inferior position of the Acholi as receivers, dependents and borrowers of foreign structure and enlightenment. This unbalanced transfer of resources and ideas into Gulu and Acholiland continues today through the activities of international NGOs, who justify their presence on the basis of the devastating social consequences of the war. Often conspicuously absent from analysis of the current situation in Acholiland, the history of colonialism is particularly salient in understanding the current war in northern Uganda, and thus instrumental in efforts to formulate a narrative of HIV transmission in Acholiland.

The omnipresence of war

War in northern Uganda has ravaged civilian life. Violent conflict between the Ugandan People's Defence Forces (UPDF) and the LRA for the past twenty years has encompassed and pierced the social experience of the Acholi. While the Acholi certainly remain engaged and active in their social worlds, the loss of family members, displacement, and physical violation have taken an enormous psychological, social, physical and cultural toll on Acholi communities.

Although the war officially started in 1986, the conflict in northern Uganda represents an aggregate of tension accumulated through years of disagreement and strife over power and resource allocation between northern and southern Uganda. Rooted, in part, in the divisive oppression of colonialism that pitted the people of northern and southern Uganda against each other, today's violence reflects years of grinding poverty, an unrestrained desire for power, and a disordered global economic order fond of breeding inequality. While

pre-colonial discord did divide northern and southern Ugandans, colonialism exacerbated the existing division (Jackson, 2002). During colonialism, the Acholi were given roles in the military (Finnström, 2003). Generally, southern Ugandans were given more distinguished and reputable positions as civil servants in the colonial administrations. Differential treatment and distinction fomented distrust, envy and bitter sentiment between the North and South (Refugee Law Project, 2004).

Further, inequality and disparate access to economic resources have precipitated animosity between geographical locales. Socioeconomic indicators reveal a pervasive poverty in northern Uganda relative to the rest of the country. In 1999-2000, monthly household income in northern Uganda was \$36, one-half of the national average of \$72 (Uganda Bureau of Statistics, 2003). The adult literacy rate in northern Uganda is 46%, far short of the national average of 63%. Only 57% of the North's population has access to toilet facilities, compared to 86% overall in Uganda (Uganda Bureau of Statistics, 2001). Northerners feel as though they have been intentionally excluded from Uganda's economic growth by southern-led governments. Recognising the explosive potential of inequality and disparity, Paul Jackson, a specialist in international policy, asserts, "the socio-economic division between north and south has fueled continuous ethnic violence" (2002, p.29). This north-south tension persists today as manifested by the recently concluded presidential and legislative elections in which northerners overwhelmingly supported opposition candidates who received much less support in the south (UN Office for the Coordination of Humanitarian Affairs, 2006).

The current war in northern Uganda originated with the tumultuous seizure of national power by Yoweri Museveni, a Southerner and Uganda's current president, in 1986. Museveni wrested control of the government from President Tito Okello, a Northerner supported by a military largely comprised of Acholi soldiers. With the reversal of command, Acholi ex-soldiers fled back to northern Uganda and southern Sudan, where frustration and a desire to reclaim national control prompted the sequential formation of armed resistance movements in 1986 and 1987, which ultimately culminated in the LRA, led by Joseph Kony (Gersony, 1997). Since 1987, the LRA and the

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda

Ugandan national army have settled into an unending cycle of violence.

Violence in Acholi life

The convergence of three forms of violence – physical, symbolic and structural – in the lives of the Acholi has made this conflict distinctly devastating. First, the physical violence of the war has overwhelmingly affected civilians. While the total number of civilians killed over the course of the war is unknown, a recent study revealed that there were an average of 146 violent deaths per week in Acholi IDP camps (World Health Organisation, 2005). An estimated 66 000 thousand children have been abducted for some period of time by the LRA (Survey of War Affected Youth, 2006). Many are then trained as child soldiers or used as sexual slaves (Human Rights Watch, 2003). Acts of physical violence committed by LRA commanders or child captives are often distinctly gruesome. However, UPDF soldiers have also been implicated in gross human rights violations, including physical torture, rape, and murder of the civilian population (Human Rights Focus, 2002).

The threat of physical violence has incited population displacement on an enormous scale within northern Uganda. Under the orders of the Ugandan government, 1.2 million Acholi, 94% percent of the population in Acholiland, have left their homes and congregated into 105 IDP camps. In some camps, the population density exceeds 1 700 people per hectare creating crowded, squalid conditions (Civil Society Organisation for Peace in Northern Uganda, 2006). Delivery of humanitarian aid requires military escort to most camps, creating formidable obstacles to the establishment of sustainable projects that meet IDP needs. Detached from their land, IDPs rely upon food delivery from the World Food Program (WFP), a source of humiliation and shame. In order to supplement an insufficient supply of WFP foodstuffs, women, risking their safety, cultivate small plots of land on the perimeter of the camps. The hope of improved security, based upon UPDF protection, has not materialised in the camps. Violent attacks occur regularly, in which the LRA abduct children, loot, kill and burn homes, leaving camp residents forlorn and uncertain about the future.

The assembly of individuals and fragmented families into congested IDP camps has created a new social

world for most in the camps. No longer spread over large tracts of land, the Acholi live in homes densely crowded within designated camp boundaries, generating new forms of social intimacy. While immediate families often remain united, extended families, an important source of relationship and solidarity, have been disrupted and segregated. Power and hierarchy have reemerged in the camps. Camp leaders, elected by the residents, serve to make decisions about camp life. Micro-economies have arisen in many camps in the form of vendors selling WFP rations or goods transported to the camp from a distant city.

The physical violence has also stirred another form of migration. Children, known as ‘night-commuters,’ who reside near larger towns, walk to hospitals, schools and other forms of temporary shelter on a nightly basis to avoid abduction. Each night the town of Gulu receives up to 25 000 night-commuters (United Nations OCHA, 2003). Unaccompanied by their parents, the children settle overnight in unsupervised and unorganised locales. These children often suffer the violence of rape and disease. As so often happens in war, violence has severely disrupted the lives of children in northern Uganda.

In addition to entangling children, violence in northern Uganda ramifies in patterns that have a distinct gender distribution. Caught in a web of vulnerability created by the social disarray of war, Acholi women have been raped by both LRA and Ugandan soldiers. Members of The AIDS Service Organisation (TASO) in Gulu report that UPDF soldiers often rape women collecting firewood or cultivating land on the edges of camps. Young females are raped while away from parental guidance and protection (World Vision, 2004). Abducted girls are given as ‘wives’ to LRA commanders and are expected to fulfill the sexual desires of male rebels. It has been argued that the LRA “has not raped indiscriminately,” yet a recent survey showed that 21% of abducted youth had witnessed rape or sexual abuse against women (Allen, 2006; Survey of War Affected Youth, 2006).

A second form of violence embedded within the lives of the Acholi is symbolic violence, which in the words of Pierre Bourdieu is “violence which is exercised upon a social agent with his or her complicity” (Bourdieu & Wacquant 2004, p. 272). Bourdieu

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda

illustrated symbolic violence through an exploration of gender inequity, an example most fitting for Gulu, particularly for impoverished women. Generally in Acholiland, poor women must maintain the home, collect firewood, prepare meals, watch the children and cultivate crops, if land is available. Women serve meals to men and eat after males, often in segregated areas. Sexual relations are often at the discretion of the male, whom the woman must obey. Men often pursue polygamous relationships, in which a woman is one of several wives. Unlike males, females generally leave school at a young age in order to work around the home. If resources are slim, females are expected to generate income, often turning to transactional sex as a means of ensuring personal and family survival. Males are authority figures, serving as traditional, government and religious leaders. Deference and respect are directed towards men, while servitude and subordination characterise a woman's social position. Gender imbalance colours life in northern Uganda, especially among the poor and uneducated. In a war setting, symbolic violence adds to the vulnerability of women already victimised by physical violence, and figures importantly in assembling a narrative of HIV transmission in Acholiland.

Finally, structural violence dominates Acholi life. This form of violence, often subtly mediated through policy and the international political and economic order, stretches over wide geographic expanses and materialises in the disadvantaging of resource-poor populations. For example, each year the Ugandan government spends approximately \$133 million on the war in northern Uganda, a figure commensurate with the annual national health budget. The total estimated cost of the war in northern Uganda stands at \$1.7 billion dollars (Civil Society Organisation for Peace in Northern Uganda, 2006). Decidedly determined to win the war in northern Uganda militarily, the Ugandan government has chosen against higher budgeting for the provision of basic services such as healthcare, education and infrastructure, by dumping money into military expenditures.

Other examples of structural violence include intellectual property restrictions that prevent the introduction of cheaper generic alternatives for newly developed medications, agricultural subsidies paid to US and European farmers, and the loss of Ugandan

healthcare workers due to treatable disease and to emigration because they are rightfully seeking better wages and living conditions outside of the continent (t' Hoen, 2003; UN Economic Commission for Africa, 2003; World Health Organisation, 2006). While seemingly abstract and distant from everyday life in Acholiland, these manifestations of structural violence do indeed have profound consequences for the Acholi, who suffer poverty, inadequate access to healthcare, and massive unemployment while attempting to avoid the physical violence of war.

Understanding historical, social, political and economic forces are indelible prerequisites for developing narratives of HIV transmission. As we will see, the everyday violence of war present in Acholi life for the past 20 years matters deeply for HIV transmission. A history of colonialism and exclusion from Uganda's recent economic success are key pieces of the story as well. To do without them risks the formation of an acontextual narrative with questionable accuracy.

Towards a narrative of HIV in Acholi life

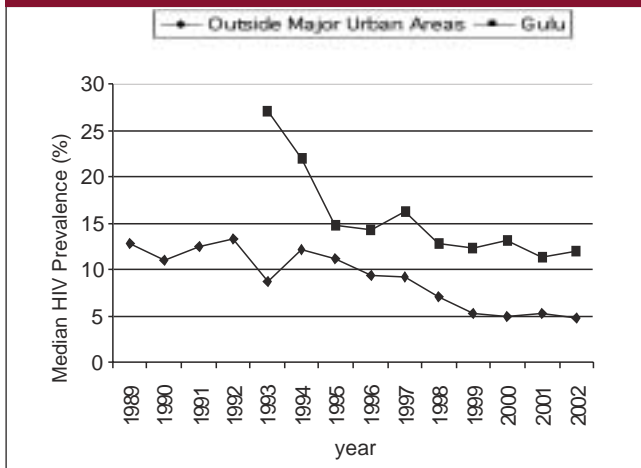
An epidemiologic perspective of HIV in Acholiland

An epidemiologic account of HIV prevalence trends in Acholiland offers a rather perplexing picture that rests on a history of data limited to specific populations and geographic locales. Uganda's Ministry of Health has tracked HIV prevalence in Acholiland through antenatal clinic (ANC) surveillance at St. Mary's Hospital Lacor, a private, non-profit hospital in a rural location that provides a considerable portion of the inpatient and outpatient care for Gulu town and the surrounding rural population (St. Mary's Hospital, 2004). The earliest data from Lacor, recorded in 1993, demonstrated an HIV prevalence of 27.1%, the highest percent recorded anywhere in Uganda. Within two years, this number dropped to 14.7%. In the late nineties, the ANC HIV prevalence at Lacor stabilised around 12% and has remained nearly the same since (see Figure 2). In 2002, the Ugandan government reported an HIV prevalence of 11.9% for Gulu (Uganda Ministry of Health, 2003; UNAIDS, 2004).

Other rural regions of Uganda have registered a far lower HIV prevalence among their populations. Between 1991 and 2002, the overall median HIV prevalence outside of major urban areas in Uganda declined from 12.8% to 4.7%. In rural regions abutting

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda

FIG. 2. MEDIAN HIV PREVALENCE IN LOCATIONS OUTSIDE MAJOR URBAN AREAS IN UGANDA OVERALL VERSUS GULU DISTRICT



Data Source: UNAIDS, 2004.

Acholiland, HIV prevalence has been drastically lower than that measured at Lacor throughout the pandemic. For example, on the western side of Acholiland, the district of Moyo in the West Nile region reported an HIV prevalence of 5.0% in 1993 and 4.3% in 2002. Nebbi, another district in the West Nile, had a prevalence of 1.3% in 2002. On the eastern side of Acholiland, the Matany ANC surveillance site in Karamojong had a prevalence of 2.8% in 1993 and 0.7% in 2002 (Uganda Ministry of Health, 2003). Some argue that Lacor's ANC data should be compared to urban ANC statistics because of Lacor's close proximity to Gulu town, the largest urban center in northern Uganda (Allen, 2006; Lowicki-Zucca *et al.*, 2005). However, the socio-demographic profile of Lacor's ANC site reveals that more than half of the women tested described themselves as living in a rural location (Fabiani *et al.*, 2006b; Fabiani *et al.*, 2001b).

In addition to the official government statistics reported from Lacor hospital, a team of researchers from the Istituto Superiore di Sanità have traced HIV prevalence among patients at Lacor hospital for numerous years. Since 1989, they have periodically measured HIV prevalence among patients in Lacor's medical wards. In 1989, 57.9% of patients admitted to medicine were HIV-positive. HIV prevalence among medicine inpatients reached a peak of 67.7% in 1994 and then declined to 46.1% by 2002, but still remained a leading cause of inpatient death (Accorsi 2004; Accorsi *et al.*, 2005; Fabiani *et al.*, 1998). Further, ANC

surveillance done by this team at Lacor showed a significant decrease of HIV prevalence between 1996 and 1999, from 14.4% to 12.1%, consistent with government reports. However, analysis of this data by area of residence showed a significant increase in HIV prevalence of women living in rural areas from 12.6% to 16.9% (Fabiani *et al.*, 2001a). ANC surveillance data gathered between 2000 and 2003 showed a non-significant decrease from 12.1% in 2000 to 11.3% in 2003; increased age, urban residence, being unmarried, increased age of partner, modern occupation of partner, and short time of residence at the current address were found to be associated with HIV infection. These findings led the team to conclude, "The HIV-1 prevalence in this rural district is high and similar to that observed in urban antenatal clinics, probably reflecting the effect of the last 18 years of civil strife" (Fabiani *et al.*, 2006b, p.586).

To the contrary, the same set of statistical data has generated skepticism over the view that the war has contributed to HIV transmission in northern Uganda. Tim Allen, a noted anthropologist with extensive experience in northern Uganda, observes, "Indeed, the decline in antenatal prevalence recorded at Lacor is one of the steepest recorded anywhere in the country" (Allen, 2006, p.17). Statistical analysis of ANC HIV prevalence between 1993 and 2002 at Lacor does show one of the greatest decreases in Uganda (Lowicki-Zucca *et al.*, 2005). Using this data, Allen argues that NGO claims asserting that the war has driven high HIV transmission are mythical (Allen, 2006).

However, just as hasty conclusions that blame the war for HIV transmission can be made by NGOs, overemphasis can be placed on ANC prevalence trends to exclude the possibility that the war has increased HIV transmission. The pitfalls of ANC surveillance, especially from earlier in the epidemic, have been well-described (Ghys, Kufa & George, 2006). It is quite possible that the data from Lacor in 1993 over represented the actual HIV prevalence in Gulu. If this is the case, then focusing on the more recent HIV prevalence recordings at Lacor may offer a clearer picture of the local epidemic. Data since 1998 demonstrate a largely unchanged HIV prevalence in Gulu. A stabilised HIV prevalence hints that new infections are offsetting the decrease in HIV prevalence that would be expected from AIDS mortality in a

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda

setting where antiretroviral therapy (ART) is unavailable (large-scale access to ART was not offered in Gulu until September 2004). While numerous factors could account for the persistence of new HIV infections in Gulu, violence associated with the war cannot be dismissed as one possible explanation.

In response to claims that the war in northern Uganda has promoted HIV transmission, it has also been pointed out that the stability of the HIV prevalence seen in Gulu has also been seen in Mbale and Mbarara, two areas of Uganda not affected by conflict (Lowicki-Zucca *et al.*, 2005). Yet, without a detailed qualitative analysis of the factors promoting HIV transmission in all of these locales, it cannot be concluded that HIV prevalence stability in one area is or is not sustained by the same factors as in another area. The reasons for minimal decline in HIV prevalence in Gulu, Mbale, and Mbarara could overlap or be completely different, thereby demonstrating the importance of understanding HIV transmission on a local level, a topic to which we will return later.

While extensive HIV surveillance has been conducted at Lacor as a proxy estimate for HIV prevalence in Gulu district, little data has been gathered in Kitgum and Pader, the other two districts comprising Acholiland. One study conducted by the Italian NGO AVSI reported HIV prevalence among pregnant women in Kitgum to be 9.9% at St. Joseph's Hospital and 7.8% at Kitgum Government Hospital. The same report observed an HIV prevalence of 4.6% in Pader at Kalongo Hospital (Ciantia, 2004). When considering both these data and that of Lacor, it is important to remember that ANC surveillance underestimates the HIV prevalence among the general female population, but approximates the prevalence in the entire general population (Fylkesnes *et al.*, 1998; Fabiani *et al.*, 2006a; Glynn *et al.*, 2001; Walker *et al.*, 2003).

Both the potential for bias with ANC surveillance data and the paucity of HIV prevalence data for much of Acholiland create much ambiguity about the quantitative impact of HIV on the Acholi population. Two recent studies, however, enhance the epidemiological perspective of HIV prevalence in Acholiland. First, in 2004-05, the Ugandan government conducted a sero-behavioural survey that randomly tested individuals residing in households across the country. The survey demonstrated an HIV

prevalence of 7.1% for men and 9.0% for women between the ages of 15-49 in the North Central region, which included Apac, Gulu, Kitgum, Lira and Pader districts. The overall prevalence for both sexes in the North Central region was 8.2%, just shy of the country's highest prevalence of 8.5% seen in the Central region and Kampala. Uganda's overall prevalence for men was 5.2% and for women was 7.3%, resulting in an overall prevalence for both sexes of 6.3% (Uganda Ministry of Health, 2006). Again, the regions bordering Acholiland had far lower HIV prevalence – 2.3% in the West Nile Region and 3.5% in the Northeast Region (Karamojong). While the sero-behavioural survey succeeded in gathering an accurate estimate of HIV prevalence, the findings are limited by the clustering of districts into regions, thereby making district- and community-specific analyses difficult.

Secondly, in July 2005, the WHO conducted a health and mortality survey among IDP camp residents in Gulu, Kitgum and Pader. The survey found a crude mortality rate (CMR) of 1.54 deaths/10,000/day, which translates into nearly 1000 excess deaths per week. Following malaria, HIV/AIDS accounted for the second highest cause of death (13.5% of all deaths) in all camps throughout Acholiland. Stratification by geographical locale though revealed a variable impact of HIV/AIDS on mortality across Acholiland. In Gulu district, Gulu municipality and Kitgum district, HIV/AIDS was the second leading cause of death, accounting for 15.6%, 19.7%, and 15.1% of all deaths respectively. In Pader district, however, HIV/AIDS only accounted for 6.1% of all deaths (World Health Organisation, 2005).

The epidemiological data and the arguments generated by this data lead to few definitive conclusions about the impact of the war on HIV transmission in northern Uganda. The data do demonstrate that HIV has had a large impact on a population that has also been afflicted by war. But, many questions are left unanswered by the quantitative data. Why does the HIV prevalence in Acholiland differ so drastically from the neighbouring regions of West Nile and Karamojong? Why has HIV prevalence stabilised in northern Uganda since the late 1990s? How is HIV being transmitted in Acholiland? Might the IDP camps actually protect individuals from HIV infection? Why does HIV prevalence vary across the three districts of

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda

Acholiland? These questions, qualitative in nature, require stepping beyond the confines of statistics and engaging social experience. In the shadows of both the war and the disease statistics in Acholiland are the voices of patients and healthcare workers, two groups with intimate experience of HIV's impact on the Acholi people.

Healthcare worker perspectives on HIV in Acholiland
In recent years, it has become increasingly clear to academics and world leaders that the synergy of poverty and violence generates conditions gravid with the possibility of disease (Annan, 2001; Farmer, 1999; Farmer, 2003; Garrett, 2000; Levy & Sidel, 2000). This lesson has been long recognised by healthcare workers who work in such settings and intimately encounter the ominous implications of poverty and violence for health. Such has been the case for healthcare workers in Acholiland. As a team of healthcare workers at Lacor hospital recently observed, "Long-term war and population displacement, sudden destitution, the collapse of social structures and the breakdown of the health system all contribute to increasing the risk of HIV, TB, emerging infectious diseases, malnutrition and war-related injuries, shaping the 'disease profile of poverty'" (Accorsi *et al.*, 2005, p.226).

Nowhere does the disease profile of poverty become more evident than in Lacor's AIDS clinic. Every day, long queues of HIV-positive patients line the benches of the waiting area in the clinic. For the hospital staff, the vast numbers of patients crowding the AIDS clinic manifest the seriousness of the HIV epidemic in northern Uganda. Dr. Betty Mutebi*, the Director of the HIV/AIDS Department at Lacor until recently, reflected:

6 000 patients visit the AIDS clinic each month ... the prevalence of HIV has stayed around 11 or 12 percent for a number of years, and people tell me that HIV is increasing in the [Internally Displaced Peoples] camps, although I can't confirm that as we don't have the capability to do the testing.

Dr. Benjamin Ojok, who oversees Lacor's public health efforts in Acholiland, added:

I've been working here at this hospital for 8 years and I have seen the burden of HIV grow on the population rather than reduce.

Both physicians, individuals who encounter Acholi patients with HIV on a daily basis, strongly suggested that HIV constituted a major health problem in the Gulu area. Kenneth Opit, the current director of the

Gulu branch of The AIDS Service Organisation (TASO), a leading HIV prevention and care organisation in Uganda, affirmed these sentiments:

HIV/AIDS has penetrated everywhere up here ... everyone is either affected or infected.

Lacor's clinical staff also readily point out the myriad ways in which violence contributes to the sustained presence of HIV within Acholi social experience. In a series of conversations, Matthew Owang, an HIV counselor at Lacor, repeatedly focused upon the capability of violence to shape the spread of HIV. When asked about the etiology of HIV transmission in northern Uganda, he articulated:

As I see it, there are three factors linked to HIV transmission. First, gender inequality. This is connected to poverty and occurs because women are without education, jobs and food. They, thus, need to rely on men for survival and are put in positions without power. Secondly, the war has resulted in the destruction of values. The war has disturbed people in a major way and has led to children without parental guidance which gives rise to children with STDs and HIV. Lastly, polygamy. Women enter into this because of money, or at least the desire to survive. Men are not faithful, even in monogamous relationships ... people go outside of their relationships all the time.

In another conversation, Matthew reflected further on the linkages between war and HIV transmission:

HIV is also being spread by soldiers who are raping women. During the day, women go to the fields on the perimeter of the camp to raise crops and there they are vulnerable to rape by male soldiers ... Further, without an education, women have no way to earn money. Thus, they turn to prostitution as an option for receiving money, food, clothing, school fees, etc. Within the social network, soldiers are the ones who have money and thus the women head to the soldiers, who are also frequently away from their own families for payment ... Just like so many things here in the north, HIV transmission is connected to insecurity, socioeconomic and education.

Implicit in all of his observations was an unyielding belief that the war and poverty figured centrally in the high HIV prevalence recorded in Gulu.

Matthew's conceptualisation of effective HIV prevention also reflected his belief in the centrality of war and poverty in the transmission of HIV in Acholiland. When asked to offer suggestions for reducing HIV in Gulu, he bluntly responded:

If this war stops, then the problem here stops. Let us also hope that people can change their practices. But, this change is contingent on changes in socio-economics.

In Matthew's vision, defeating HIV rested upon the elimination of war and poverty. Matthew believed in the value of behaviour change but recognised that

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda

behaviour could only change in an environment that permitted individuals to act agentically.

Healthcare workers also repeatedly attributed blame to the IDP camps for HIV transmission in Acholiland. Frank Ocen, who has worked in Pabbo IDP camp for a number of years as a community health worker, scribbled the following list when asked to clarify the relationship between HIV transmission and the IDP camps:

1. Prostitution more common in the camps
2. Child abuse in the camps
3. 'Negative' culture now practised
4. Extensive sexual network that exists in a situation of human crowding
5. Peer pressure for the youth
6. Close quarters allows for one to see what others are engaged in
7. Rape
8. For women, sex is survival
9. Lack of youth-friendly services
10. Poor communication between parents and children

Echoing Matthew's view on the impetus behind transactional sex, Frank added:

In the camps prostitution is about earning a living in a setting where there are no other options for earning an income. The women enter this lifestyle because they are poor and need to raise their economic status ... Sex is survival.

Frank also identified polygamy as a culprit in HIV transmission. Using a set of diagrams, Frank explained:

First women go outside of their partners for sexual desires. When there is more than one woman to each man, the women is not satisfied sexually and must go outside the relationship to be fulfilled. A woman may go for two months without sexual relations if faithful to a male ... men also go outside relationships for personal feelings ... and then in the camps all of these people are closer together which makes HIV transmission easier ... polygamy occurs because people are in need of producing and want to live on and may die today.

In Frank's view, women enter sexual relationships outside of the polygamous unit in order to satisfy sexual desires that are not fulfilled through the infrequency of sex conditioned by polygamous structure. Men pursue sexual relations because of personal desire for increased social capital. Both men and women remain woven into polygamous units because of the desire to reproduce and extend the lineage. Lastly, he identified the war as the primary culprit responsible for the perseverance of HIV in Acholiland. Near the close of one conversation, he emphatically asserted:

If this war wasn't here, [HIV] could have gone way down. If people could go home, then they could handle it at a community level.

Indeed, the war has impeded community-level efforts to prevent HIV transmission. After many years of operation throughout much of the country, TASO only arrived in Gulu in 2004 due to concerns over insecurity in Acholiland. Now operating from Gulu town, TASO provides HIV counseling and testing, preventative education, treatment of opportunistic infections, and HIV treatment.

Evelyn Musoni, the director of the TASO office in Gulu from 2004-06, offered an assessment of the factors causing HIV transmission in Acholiland that mirrored the perspectives of Frank and Matthew:

HIV spread much more rapidly here for a number of reasons. The biggest factors are the camps and the war. People have been forced into camps, yet are still sexually active. The disruption of the war has also resulted in fractured family and social structures. A second reason is poverty, in particular for the women. In Mbale, where I'm from, the people are very crowded onto the land and farming is difficult to survive on. But, up here, prior to the war, people had a lot of land and were able to make a living on farming. The war has taken all of this away from them. Their source of income has been cut off.

Evelyn identified social and economic factors as the primary agents driving the spread of HIV. Further, she asserted:

Without the war, there would definitely be much less HIV in Gulu because of the traditional culture.

When asked to elucidate her blaming of the IDP camps for the spread of HIV, she explicated:

The camps have forced people to live in one home as a family. Previously, children of a certain age would move into another hut on the family property. Thus, they would not observe the sexual activity of the parents. However, now the children witness the sexual activity of the parents as they reside in the same space. Also during the day, the women leave the camps to work in the fields. During that time, the men and children remain in the camps which results in a great deal of defilement and also allows for the children to become sexually active with each other.

In her view, camp life both allowed children to observe sexual practices and promoted unsupervised time for children, each of which encouraged sexual activity at an early age. Evelyn also identified behavior change as one of the key factors that led to the diminishment of HIV in southern Uganda:

The war has prevented any serious attempts at altering behavioural practices in the North. People in the south had changed behavior and thus reduced HIV.

She believed the same would hold true for northern Uganda. However, thus far, in her view, structural

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda

factors, such as the war, had collapsed the possibilities for behavior change. The obstruction of agency blunted an individual's ability to safely command a life-world free of encounters with HIV.

These same perspectives on HIV transmission and prevention in Acholiland were repeatedly uttered in casual conversations with other healthcare workers at Lacor Hospital, Gulu public hospital, Comboni Samaritan (a Gulu NGO committed to service provision and solidarity with people living with HIV/AIDS), and other NGOs. Words to the contrary were rarely heard amongst those living and working in Gulu. The voices of healthcare workers presented here offer a fairly uniform conclusion about the narrative of HIV in Acholiland: that war and HIV/AIDS are inextricably linked in that setting.

Patient perspectives on HIV in Acholiland

While healthcare workers, academics and government leaders may be positioned to make informed observations about the connections between poverty, violence and HIV/AIDS, it is only patients living with HIV and AIDS who can offer the lived experience of becoming infected and living with the illness. Yet, with a few exceptions, the voices of patients living with HIV and AIDS are glaringly absent in efforts to unravel the trajectory of HIV within communities. Regarding Acholiland, the published literature on HIV lacks any personal narratives of individuals living with HIV. Without their voices, how can conclusions be confidently drawn about the impact of HIV in Acholiland and the factors promoting its transmission? A more complete narrative of HIV in Acholiland would seem to require the inclusion, and even the privileging, of those living with the disease. In an effort to begin filling in this gap, brief narratives of Brenda and Joseph, two individuals with HIV who were interviewed in March 2006 in Lacor's TB ward, are now presented. Their stories are representative of far more interviewed at Lacor hospital and in Pabbo and Opit IDP camps. While still woefully inadequate, given the large number of individuals infected with HIV in Acholiland, their narratives provide a starting point for the voices of patients to occupy a much greater space in the construction of a narrative of HIV in Acholiland.

Brenda is a 50-year-old Acholi widow who developed a new case of pulmonary TB in early March 2006. She

was admitted to Lacor hospital with a congested cough in late February and was quickly diagnosed with TB. For Lacor's physicians, the diagnosis was quite simple as Brenda was known to be HIV-positive, sharply increasing her chances of having a latent TB infection turn active. As an inpatient, she was started on a TB treatment plan that would last eight to nine months depending on her progress.

Brenda's recent history has been one of hardship. For the past number of years, Brenda has been living in Amuru IDP camp, the second largest IDP camp in Gulu district. In the crowded vicinity of approximately 30 000 other camp inhabitants, Brenda lives in a circular home made of clay and bricks with a grass-thatched roof. She lives with seven other people, including her two children for whom she is responsible. She and her family members have access to a pit latrine. Prior to living in the camp, Brenda was a peasant farmer, generating small amounts of income to support her family. However, now in the camp, opportunities for farming are minimal, leaving her and her family with very little income.

The war has taken a great toll on Brenda. When asked how the war has impacted her life, she narrated:

This war has caused me great loss. I have had the loss of many relatives. My daughter died in this war and my husband too. We have also lost our ancestral lands and been displaced into these camps, which have caused us much disease, loss of work, hunger, and many problems.

In Brenda's mind, the camps are in part responsible for her poor health:

This war has hurt my health because it made me to contract the disease HIV as a result of staying in the camps. This HIV is what is now causing my problems with TB ... and for me being sick is difficult as I must travel over 10km to get to the nearest health facility.

While Brenda is uncertain about how and from whom she contracted HIV, she is quite adamant that the consequences of the violence in the war are to blame.

Joseph is a 35-year-old married Acholi male who is a soldier in the UPDF. After completing primary school many years ago, Joseph stopped going to school, which he believed was connected to the war:

The war was connected to me dropping out of school. Money for school fees was no longer available because the war stopped all chances for work. What could I do then? School was done, I couldn't work, so I joined the army. This war led me to join the army.

As a UPDF soldier, Joseph now lives in the military barracks just outside Gulu town with his wife. He has

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda

four children, with whom he lives in a circular clay home with a grass-thatched roof. Although based at the military barracks, he spends much time away from his family while on military operations outside of town.

At some point over the last few years, Joseph got HIV on one of those military operations. He too attributes blame to the circumstances of the war:

This war made me affected with HIV/AIDS and TB. The poverty, lawlessness and social disruption have let HIV go wild. I am now infected and nothing can change that.

Late in 2005 Joseph developed classic symptoms of TB – cough, night sweats and weakness. In mid-December 2005, he was started on a standard TB treatment plan. Initially, he took the medicines daily as prescribed; however, in early February 2006, he was sent out on a military operation and failed to take his medications until he returned to Lacor's TB clinic in early March to restart treatment.

The narratives of Brenda and Joseph illustrate lives in which war and HIV have collided. Is this collision linked? Although unable to delineate the exact mechanisms linking the arrival of HIV and war into their lives, Brenda and Joseph are convinced that the two are intertwined. For them, it is not a coincidence that war and HIV disrupted their lives in the same span of time.

War, HIV and Acholiland: Complex relationships and anthropological insight

Incorporating historical and political context and the voices of healthcare workers and patients offers the opportunity to significantly broaden the analysis of HIV transmission in Acholiland and its impact upon the Acholi people. Previous work on this topic has been lop-sided in favor of epidemiological evidence, providing a rather acontextual assessment of HIV's movement in the Acholi community. In contrast, an analysis which incorporates historical and social context, epidemiological evidence, and the perspectives of healthcare workers and patients living with HIV/AIDS offers a better chance of formulating a coherent, accurate narrative of HIV. Such an expanded analysis allows for a number of novel lessons to emerge about the relationships between war and HIV in Acholiland and beyond.

First, the physical, symbolic and structural violences in Acholiland described earlier create a number of unique exigencies that distinctly increase risk for HIV transmission. The mass abduction of children into the LRA makes youth particularly vulnerable to HIV infection. Males abducted into the LRA are coerced through physical violence to use rape as a weapon of war, while many of the girls are forced into sexual slavery as 'wives' to LRA commanders. A further consequence of the abductions is that parents of abducted children desire to replace them with more children. Subsequently, northern Uganda has one of the highest fertility rates in the world at 7.9 births per woman, providing ample opportunity for HIV transmission between sexual partners and from mother-to-child (Uganda Ministry of Finance, Planning and Economic Development, 2003).

For those children not abducted, night-commuting, with its own risks of HIV infection, has become a way of life for many youth (Women's Commission for Refugee Women and Children, 2004). These children are often sexually victimised, and even when the sexual activity is consensual, it often occurs at an early age and without the benefit of information about safe sexual practices, creating an environment favourable for HIV transmission (World Vision, 2004). The IDP camps would also seem to contribute to the creation of a social setting favourable for HIV transmission. Healthcare clinics and activities, including HIV testing, prevention and care, are minimal in the camps. Women, tending crops and collecting firewood on the perimeters of the camps, are attacked and raped by both Ugandan soldiers and members of the LRA (Akumu, Amony & Otim, 2005). Further, women living in the camps are frequently driven to transactional sex in order to provide for their children and attain the means for educational opportunities.

Gleaned in part from the narratives of healthcare workers and patients in Acholiland, the delineation of these risk factors for HIV transmission helps in explaining why HIV prevalence in Acholiland remains high. The war and its concomitant forms of violence are unique to Acholiland in recent times in Uganda. These forms of violence are also largely absent in Acholiland's neighbouring regions, perhaps explaining the sharp falls in HIV prevalence encountered when crossing from Acholiland into the West Nile or Karamojong regions. Understanding the impact and

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda

history of the war also sheds light on what may be holding HIV prevalence stable in Acholiland since 1998, while the national average HIV prevalence has continued declining. ANC HIV prevalence stabilised in Gulu just two years after intensification of the war forced massive population displacement into the IDP camps. Notably, fertility rates also sharply increased during this period of time from 6.8 in 1995 to 7.9 in 2000 (Uganda Ministry of Finance, Planning and Economic Development, 2003). This evidence suggests that despite widespread AIDS mortality in Acholiland, which would work to lower HIV prevalence, factors associated with the war, such as the violences described earlier, may be maintaining the current prevalence. These are findings supported by the healthcare worker and patient perspectives offered above.

However, what if the claims of the healthcare workers and patients are inaccurate? Could these be fabricated narratives motivated by personal interest for gain, whether it be recognition or increased access to humanitarian aid? Certainly these are possibilities. Tim Allen has raised such concerns about the views of locals linking the war and HIV transmission, asserting, "There is no doubt that atrocious sexual abuses have occurred, but there does not seem to be evidence that military activities and rape are driving the HIV/AIDS epidemic" (Allen, 2006, p.19). Instead, he offers an alternative theory: that the war has led to the imposition of social control mechanisms through the military and IDP camps that have made transmission of HIV less likely. While it is certain that aspects of Acholi social life have become more constrained due to the conflict, it is unclear whether these constraints have made HIV transmission more or less likely. For example, increased social control by the military could feasibly lead to less rape because of their presence as authority figures, or could lead to more transactional sex because of their relative power and economic advantages in comparison to female camp residents. The creation of IDP camps could make it easier to disseminate HIV/AIDS information to many people because they are closely clustered, or could lead to increased sexual partners among unmarried individuals because of their proximity and the increased number of potential partners. At this time, how all of these factors have played out is simply unknown. Unveiling the realities requires detailed social analysis of further ethnographic fieldwork. Complementing this work with studies on HIV incidence would be the surest

way of getting closer to an accurate depiction of HIV transmission in northern Uganda.

While numerous theories can be posited about the relationship between HIV transmission and war in northern Uganda, none diminish the strength of the premise that HIV has had a heavy impact on the Acholi population, as demonstrated by epidemiological evidence. Ancillary evidence also supports this view: after starting an HIV treatment programme in September 2004, Lacor hospital quickly enrolled 1000 patients in the programme out of an HIV/AIDS clinic with 6 000 regular attendees. Records from a voluntary counseling and testing site in Pabbo IDP camp reveal that about 10% of people tested are HIV-positive. Numerous other TB patients, many also co-infected with HIV, echoed the words of Brenda and Joseph and reported, "this war has caused me to get TB and HIV/AIDS," whether because of crowding in the IDP camps, transactional sex, or the lack of money for education. Although impossible to draw quantitative conclusions based on such observations, they do offer a window into a world upon which, alongside war, HIV has certainly impinged.

A second lesson is that any inquiry into the relationship between war and HIV transmission must recognise the likelihood of variability in experience for both particular settings and across disparate, distant settings. In Acholiland, ANC prevalence testing and the sero-behavioural survey demonstrates a variable impact of HIV upon the population. For example, HIV prevalence appears to be highest in Gulu district followed by Kitgum district and then Pader district, where HIV prevalence is far lower and commensurate with the levels seen in other rural areas of Uganda. Juxtaposing these epidemiological findings alongside the social context may offer some clarity regarding this variability.

Throughout much of the war, Pader has been the district most afflicted with violence, thus creating a high level of isolation; to a lesser degree, such has also been the case for Kitgum. As HIV transmission in Uganda has often spread along trucking routes and major highways, the relative isolation of Kitgum and Pader may have prevented a significant introduction of HIV into the population thus far. This isolation would hold down HIV prevalence despite the presence of rape and transactional sex and the absence of HIV

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda

prevention efforts, all consequences of the war that would be expected to promote HIV transmission (Lyons, 2004). Gulu district, on the other hand, has maintained more extensive linkages with the rest of country, creating a conduit for increased HIV transmission into the community. Additionally, stratification of Lacor's ANC surveillance data between 1996 and 1999 revealed that while the overall HIV prevalence decreased, it was actually increasing among women living in rural areas (Fabiani, 2001a). These examples illustrate that claims asserting a homogenous impact of HIV throughout Acholiland, whether arguing a high or low impact, are of questionable veracity. More nuanced analysis, drawing on epidemiological, social and historical evidence, reveals a varied experience with HIV across Acholiland.

Further, the lesson of variability has applicability to broader discussions about the relationship between war and HIV, a topic with a history of discrepant findings and conclusions. Smallman-Raynor and Cliff reported in 1991 that the spread of HIV in southern Uganda in the early 1980s was epidemiologically associated with the movement of Tanzanian soldiers northward in a war against Uganda (1991). In 1998, the UN published a document entitled, "AIDS and the military," warning that in times of conflict the prevalence of sexually transmitted diseases, including HIV/AIDS, among military personnel can be 50 times higher or more than the civilian population (UNAIDS, 1998). This work, in combination with other efforts to map out the relationship between war and HIV, led to more recent attempts to synthesize general principles and recommendations for HIV prevention in conflict settings (Hankins *et al.*, 2002; Interagency Standing Committee, 2004; Mock *et al.*, 2004). Tracing this history of attempts to gaze into the murky realm of war and disease would seem to indicate that war brings increased HIV infections for civilians and military personnel alike.

An alternative line of thinking, however, has emerged in recent years that cautions against the blanket assumption that war translates into increased HIV infections (Spiegel, 2004). This position presents evidence that war, by virtue of its tendency to isolate populations, can actually protect a population from HIV infection. Support is drawn from macro-level analyses that track HIV prevalence in countries with a history of civil conflict anytime since the arrival of the

AIDS pandemic. West African countries, such as Sierra Leone, are put forward as places with intense levels of conflict in which HIV transmission remained ostensibly low (Kaiser *et al.*, 2002). The same applies for Angola (Spiegel & De Jong, 2003). Further, it is pointed out that in Mozambique, HIV prevalence remained low throughout its war and that, in fact, the cessation of violence marked the inception of an increase in the spread of HIV (Mock *et al.*, 2004). The reverse logic is also applied to marshal support for this position by highlighting that the highest rates of HIV in the world are found in southern Africa where no civil conflict exists.

So, how are we to assess and digest these ostensibly divergent perspectives on the relationship between war and HIV? The variability of HIV prevalence seen in Acholiland teaches that extreme caution must be applied in crafting generalisations about the relationship between war and HIV. War in one locale means something entirely different than war in another locale. In this light, Arthur Kleinman, a noted anthropologist, warns against assuming the existence of a universal experience of violence:

Possessing different histories, sustained by different social dynamics, we assume, nonetheless, that the outcome in trauma and suffering is the same. But why should that be? Why shouldn't the trauma and suffering be as different as a different form of violence or its sources are? [Kleinman, 2000]

We must recognise the ways in which night commuters are a phenomenon unique to Acholiland. The exact political and social structure of IDP camps is also a specific consequence of the war in Acholiland. The likelihood of a high presence of HIV amongst the population earlier in the war might also distinguish certain parts of Acholiland from other conflict settings. This is all to say that just because war in Mozambique or Angola didn't cause widespread HIV transmission does not mean that the specific exigencies connected with war in another locale cannot. In the same vein, just because the war in Acholiland might be associated with increased HIV transmission does not mean that blanket statements can be made about war's potential to spread HIV. The desire to generalise too easily lures one towards uninvestigated, incomplete conclusions. Maintaining honest integrity towards local context offers a means of keeping us from being lead astray.

Finally, the setting of Acholiland demonstrates the vital importance of carefully considering local context in

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda

HIV prevention. Although a well-worn cliché by this time in the pandemic, this lesson is startlingly absent from the day-to-day operations of HIV prevention programmes. When it comes to actual HIV prevention projects, it is as though we are operating out of the belief that a grand, unifying theory of HIV transmission and prevention exists. This assumption has crippled HIV prevention efforts, policy and implementation over and over again. Programmes and policies molded in this light have ignored their greatest resource – connection with and reflection upon local communities struggling to counter HIV's intrusion upon their lifeworlds. This is the precise space for anthropological analysis, which is seemingly dismissed too often as subjective and deviating from the scientifically accepted charts, graphs and epidemiological evidence.

Ethnographic study in northern Uganda seems to show that social and economic configurations in IDP camps do matter for HIV transmission, that violence increases vulnerability to HIV infection particularly among Acholi women, and that children robbed of an education and lacking information about HIV are at increased risk of infection. The sole promotion of traditional forms of HIV prevention is not likely to significantly reduce the prevalence of HIV in northern Uganda. Typical HIV prevention efforts, whether advocating condom use, abstinence or fidelity, undervalue the social determinants of HIV risk, such as poverty, political instability and gender inequality, all shown much earlier to contribute to HIV risk (Farmer *et al.*, 1996; Tarantola & Mann, 1995; Zwi & Cabral 1991). The experience of those living in Acholiland challenges the supposition that individual choice determines HIV transmission risk and that individual choice can therefore mitigate risk. In Acholiland, the dangerous web of physical, symbolic and structural violence that manifests in child soldiers, night commuters and IDP camps, must also be accounted for in the design of successful HIV prevention programmes.

To reduce HIV transmission in Acholiland, the social and political forces that underpin risk must also be addressed. This includes recognition that a lack of basic social and economic rights, including the right to food, shelter, health, education and economic opportunity augment HIV risk significantly in northern Uganda. This expanded purview would also suggest that

interventions, by Uganda and other countries with significant influence there, must provide real security for vulnerable populations and develop economic opportunity in order to comprehensively address HIV risk. Further, conflict resolution and peace advocacy efforts would seem to have a particularly germane role in working to reduce HIV transmission in Acholiland. Of course, ending the war in Acholiland will not make HIV magically vanish, but it would remove a number of formidable obstacles to realistic reduction of HIV among of the Acholi population.

In closing, the formulation of a narrative of HIV transmission and the implementation of HIV prevention practices require engagement with complexity. The mini-ethnography of Acholiland presented above illustrates that a complex amalgamation of circumstances, processes and moments culminate in HIV transmission there. Numerous questions remain about HIV transmission in Acholiland: what is the specific HIV prevalence in the IDP camps? Has unclean medical equipment contributed to HIV transmission in Acholiland? How has HIV impacted the lives of children who have escaped the LRA? Has the UPDF had a role in spreading HIV? Most importantly, what forms of prevention will succeed in reducing HIV prevalence in Acholiland? An alignment of epidemiological study with anthropological analysis offers the most promising avenue for engaging these questions.

References

- Accorsi, S. (2004). Coping with the impact of recurrent crises: Analysis of epidemiologic and service data from Lacor Hospital, Gulu (Northern Uganda) over a 12-year period (1992-2003). Nairobi: European Commission Humanitarian Aid Office.
- Accorsi, S., Fabiani, M., Nattabi, B., Corrado, B., Irso, R., Ayella, E.O., Pido, B., Onek, P.A., Ogwang, M., & Declich, S. (2005). The disease profile of poverty: morbidity and mortality in northern Uganda in the context of war, population displacement and HIV/AIDS. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 99 (3), 226-33.
- Accorsi, S., Fabiani, M., Lukwiya, M., Ravera, M., Costanzi, A., Ojom, L., Paze, E., Manenti, F., Anguzu, P., Dente, M., & Declich, S. (2001). Impact of insecurity, the AIDS epidemic, and poverty on population health: Disease patterns and trends in Northern Uganda. *American Journal of Tropical Medicine and Hygiene*, 64 (4), 214-221.
- Akumu, C.O., Amony, I., & Otim, G. (2005). *Suffering in silence: A study of sexual and gender based violence in Pabbo Camp, Gulu District, Northern Uganda*. Geneva: UNICEF.
- Allen, T. (2006). AIDS and evidence: Interrogating some Ugandan myths. *Journal of Biosocial Science*, 38, 7-28.
- Annan, K. (2001). Speech on April 26, 2001 in Abuja, Nigeria to the African Summit on HIV/AIDS, Tuberculosis, and Other Infectious Diseases. Press Release SG/SM/7779/Rev.1. New York: United Nations.
- Atkinson, R.R. (1989). The evolution of ethnicity among the Acholi of Uganda: The precolonial phase. *Ethnohistory*, 36 (1), 19-43.
- Bourdieu, P. & Wacquant, L. (2004). Symbolic Violence. In N. Scheper-Hughes & P. Bourgois, *Violence in war and peace: An anthology* (pp. 272-274). Malden: Blackwell Publishing.
- Ciantia, F. (2004). HIV seroprevalence in Northern Uganda: The complex relationship between AIDS and conflict. *Journal of Medicine and the Person*, 2 (4), 172-175.
- Civil Society Organisation for Peace in Northern Uganda (2006). Counting the cost: Twenty years of war in northern Uganda. Kampala: Civil Society Organisations for Peace in northern Uganda.
- Fabiani, M., Blè, C., Grivel, P., Lukwiya, M., & Declich, S. (1998). 1989-1996 HIV-1 prevalence

Linking anthropological analysis and epidemiological evidence: Formulating a narrative of HIV transmission in Acholiland of northern Uganda

- trends among different risk groups in Gulu District, North Uganda. *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology* 18(5), 514.
- Fabiani, M., Ayella, E.O., Blè, C., Accorsi, S., Dente, M.G., Onek, P.A., & Declich, S. (2001a). Increasing HIV-1 prevalence among pregnant women living in rural areas of the Gulu district (North Uganda). *AIDS* 15(17), 2330-1.
- Fabiani, M., Accorsi, S., Lukwiya, M., Rosolen, T., Ayella, E., Onek, P.A., & Declich, S. (2001b). Trend in HIV-1 prevalence in an antenatal clinic in North Uganda and adjusted rates for the general female population. *AIDS* 15, 97-103.
- Fabiani, M., Nattabi, B., Ayella, E.O., Ogwang, M., & Declich, S. (2006a). Differences in fertility by HIV serostatus and adjusted HIV prevalence data from an antenatal clinic in northern Uganda. *Tropical Medicine and International Health* 11(2), 182-7.
- Fabiani, M., Nattabi, B., Opio, A.A., Musinguzi, J., Biryahwaho, B., Ayella, E.O., Ogwang, M., & Declich, S. (2006b). A high prevalence of HIV-1 infection among pregnant women living in a rural district of north Uganda severely affected by civil strife. *Transactions of the Royal Society of Tropical Medicine and Hygiene* 100(6), 586-93.
- Farmer, P.E., Connors, M., & Simmons, J. (1996) *Women, Poverty, and AIDS: Sex, Drugs and Structural Violence*. Monroe: Common Courage Press.
- Farmer, P.E. (1999). *Infections and inequalities: The modern plagues*. Berkeley: University of California Press.
- Farmer, P.E. (2003). *Pathologies of power: Health, human rights, and the new war on the poor*. Berkeley: University of California Press.
- Finnström, S. (2003). *Living with bad surroundings: War and existential uncertainty in Acholiland, Northern Uganda*. Uppsala: Uppsala University Press.
- Fylkesnes, K., Ndhlovu, Z., Kasumba, K., Mubanga, M.R., & Sichone, M. (1998). Studying dynamics of the HIV epidemic: population-based data compared with sentinel surveillance in Zambia. *AIDS* 12, (10), 1227-34.
- Garrett, L. (2000). *Betrayal of trust: The collapse of global public health*. New York: Hyperion Books.
- Gersony, R. (1997). *The anguish of Northern Uganda – USAID Report*. Washington: USAID.
- Ghys, P.D., Kufa, E. & George, M.V. (2006). Measuring trends in prevalence and incidence of HIV infection in countries with generalized epidemics. *Sexually Transmitted Infections* 82, S1, 52-56.
- Glynn, J.R., Buve, A., Carael, M., Musonda, R.M., Kahindo, M., Macauley, I., Tembo, F., Zekeng, L., and Study Group on Heterogeneity of HIV Epidemics in African Cities. (2001). Factors influencing the difference in HIV prevalence between antenatal clinic and general population in sub-Saharan Africa. *AIDS* 15, 1717-1725.
- Hankins, C.A., Friedman, S.R., Zafar, T. & Strathdee, 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.
- Human Rights Focus (2002). *Between Two Fires: The Human Rights Situation in Protected Camps in Gulu District*. Gulu: Human Rights Focus.
- Human Rights Watch (2003). *Uganda: Stolen children, abduction, and recruitment in Northern Uganda*, 15 (7). New York: Human Rights Watch Publications.
- Interagency Standing Committee (2004). *Guidelines for HIV in emergency settings*. [WWW page] URL: http://www.unfpa.org/upload/lib_pub_file/249_filename_guidelines-hiv-emer.pdf.
- Jackson, P. (2002). The March of the Lord's Resistance Army: Greed or grievance in Northern Uganda? *Small Wars and Insurgencies*, 13(3), 29-52.
- Kaiser, R., Kedamo, T., Downing, R., Marum, E., Salama, P., Spiegel, P. & Mermin, J. (2002). *HIV sero-prevalence and behavioral risk factor survey in Sierra Leone*. Atlanta: Centers for Disease Control and Prevention.
- Kleinman, A. (2000). *The Violences of Everyday Life: The Multiple Forms and Dynamics of Social Violence*. In V. Das, A. Kleinman, M. Ramphel, and P. Reynolds, *Violence and subjectivity* (pp. 226-241). Berkeley: University of California Press.
- Levy, B. & Sidel, V. (2000). *War and public health*. Washington: American Public Health Association.
- Lowicki-Zucca, M., Spiegel, P. & Ciantia, F. (2005). AIDS, conflict and the media in Africa: risks in reporting bad data badly. *Emerging Themes in Epidemiology*, 2(12).
- Lyons, M. (2004). Mobile Populations and HIV/AIDS in East Africa. In E. Kalipeni, S. Craddock, J.R. Oppong & J. Ghosh, *HIV and AIDS in Africa: Beyond Epidemiology* (pp. 175-190). Malden: Blackwell Publishing Ltd.
- Mock, N., Duale, S., Brown, L., Mathys, E., O'Maonigh, H., Abul-Husn, N. & Elliott, S. (2004). Conflict and HIV: A framework for risk assessment to prevent HIV in conflict-affected settings in Africa. *Emerging Themes in Epidemiology*, 1(6) 11-14.
- Nzita, R. & Niwampa, M. (1995). *Peoples and cultures of Uganda*. Kampala: Fountain Publishers.
- Nordstrom, C. (2004). *Shadows of war: Violence, power and international profiteering in the twenty-first century*. Berkeley: University of California Press.
- Refugee Law Project (2004). *Behind the Violence: Causes, Consequences and the Search for Solutions to the War in Northern Uganda. Working Paper No. 11*. Kampala: Refugee Law Group.
- St. Mary's Hospital (2004). *Annual Report for 2003-2004*. Gulu: St. Mary's Hospital Publication.
- Smallman-Raynor M.R., & Cliff, A.D. (1991). Civil war and the spread of AIDS in Central Africa. *Epidemiology of Infections* 107, 69-80.
- Speke, J.H. (1863). *Journal of the discovery of the source of the Nile*. Edinburgh & London: W. Blackwood and sons.
- Spiegel, P. (2004). HIV/AIDS among conflict-affected and displaced populations: Dispelling myths and taking action. *Disasters*, 28 3, 322-339.
- Spiegel, P. & De Jong, E. (2003). HIV/AIDS and refugees/returnees: Mission to Angola. Luanda: UNHCR.
- Survey of War Affected Youth (2006). SWAY Phase 1 Final Report. [WWW Page] URL: <http://www.sway-uganda.org/SWAY.FinalReport.DRAFT.22Aug06.pdf>.
- Tarantola, D., & Mann, J. (1995). AIDS and human rights. *AIDS & Society* 6(4), 1,5.
- 't Hoen, E. (2003). TRIPS, Pharmaceutical Patents and Access to Essential Medicines: Seattle, Doha, and Beyond. In J.P. Moatti, B. Coriatt, & Y. Souteyrand, *Economics of AIDS and access to HIV/AIDS care in developing countries: Issues and challenges* (pp.39-67). Paris: French Agency for AIDS Research.
- Uganda Bureau of Statistics (2001). *Uganda National Household Survey 1999/2000: Report on the Socio-Economic*. Kampala: Uganda Bureau of Statistics.
- Uganda Bureau of Statistics (2003). *Population and Housing Census 2002*. Kampala: Uganda Bureau of Statistics.
- Uganda Ministry of Finance, Planning, and Economic Development (2003). *Post-conflict reconstruction: The case of northern Uganda*. Kampala: Ministry of Finance, Planning, and Economic Development.
- Uganda Ministry of Health. (2003). *STD/HIV/AIDS Surveillance Report June 2003*. Kampala: Ministry of Health.
- Uganda Ministry of Health (2006). *Uganda HIV/AIDS Sero-Behavioural Survey 2004-2005*. Kampala: Ministry of Health.
- UNAIDS (1998). *AIDS and the Military*. Geneva: UNAIDS Point of View.
- UNAIDS (2004). *UNAIDS/WHO Epidemiological Fact Sheet on HIV/AIDS and Sexually Transmitted Infections – Uganda*. Geneva: UNAIDS.
- UN Economic Commission for Africa (2003). *Economic report on Africa: Accelerating the pace of development*. Addis Ababa: UN Economic Commission for Africa.
- United Nations Office for the Coordination of Humanitarian Affairs (2006). *Uganda: War-ravaged north rues Museveni win*. [WWW page] URL: http://www.irinnews.org/report.asp?ReportID=51960&SelectRegion=East_Africa.
- United Nations Office for the Coordination of Humanitarian Affairs (2003). *"When the sun sets, we start to worry..." : An Account of Life in Northern Uganda*. Nairobi: United Nations OCHA/IRIN Publications.
- Walker, N., Stanecki, K.A., Brown, T., Stover, J., Lazzari, S., Garcia-Calleja, J.M., Schwartlander, B. & Ghys, P.D. (2003). Methods and procedures for estimating HIV/AIDS and its impact: the UNAIDS/WHO estimates for the end of 2001. *AIDS* 17, 2215-2225.
- Women's Commission for Refugee Women and Children (2004). *No safe place to call home: Child and adolescent night commuters in northern Uganda*. New York: Women's Commission for Refugee Women and Children.
- World Health Organisation (2006). *The World Health Report 2006: Working together for health*. Geneva: WHO.
- World Health Organisation (2005). *Health and mortality survey among internally displaced persons*. Geneva: WHO.
- World Vision (2004). *Pawns of politics: Children, conflict, and peace in northern Uganda*. Kampala: World Vision International.
- Zwi, A.B. & Cabral, A.J.R. (1991). Identifying "high risk situations" for preventing AIDS. *British Medical Journal* 303, 1527-1528.

*For confidentiality, the names of all interviewees have been altered.