SAHARA Journal Mission Statement
The journal publishes contributions in English and French from all fields of social aspects of HIV/AIDS (care, support, behaviour change, behavioural surveillance, counselling, impact, mitigation, stigma, discrimination, prevention, treatment, adherence, culture, faith-based approaches, evidence-based intervention, health communication, structural and environmental intervention, financing, policy, media, etc.)

Déclaration de la mission du journal SAHARA
Le journal publie des articles en anglais et en français dans tous les domaines sociaux du VIH/SIDA (soins, traitement et counselling, soutien et prise en charge, changements de comportements, surveillance socio-comportementale, mitigation des impacts, stigmatisation, discrimination, prévention, adhérence au traitement, culture, approche basée sur la loi et la religion, interventions basées sur des succès documentés, communication en matière de santé, interventions structurelles et environnementales, financement, politiques et médias).
Sub-Saharan Africa is the part of the world which is the most affected by the HIV and AIDS pandemic, with 24.5 million people infected by the virus that causes AIDS. Adult HIV prevalence in southern Africa is estimated at 16%, at 6% in East Africa and at 4.5% in West and Central Africa (UNAIDS, 2006).

Ecological studies in sub-Saharan Africa have suggested a geographical association between areas of higher prevalence of HIV and lower prevalence of male circumcision (MC) (Drain, Halperin, Hughes, Klausner & Bailey, 2006). An initial short-term randomised controlled study on male circumcision led by the Agence nationale de recherche sur le sida (ANRS) at Orange Farm in South Africa revealed a reduction of 60%-75% in the risk of female to male transmission of HIV-1 in circumcised men (Auvert et al., 2005). These studies, which were supported by the National Institutes of Health (NIH), were conducted in Kisumu in Kenya (Bailey et al., 2007) and in Rakai in Uganda (Gray et al., 2007). They demonstrated a risk reduction of around 58% and 53% respectively. On the 28th of March 2007 based on these studies, the WHO and UNAIDS issued a statement endorsing male circumcision (MC) as an additional strategy in HIV prevention, particularly in high HIV prevalence and low male circumcision countries (WHO/UNAIDS, 2007).

Ecological studies have shown that where male circumcision rates are low (less than 20%) HIV prevalence is above 10%, while where male circumcision is high (above 80%), HIV prevalence is under 10% (Halperin & Bailey, 1999). The transmission of HIV infection depends on various factors, and a multifactorial approach needs to be taken to interpret HIV prevalence and its association with male circumcision. Cultural and religious factors have an important role to play in terms of their impact on behaviour (Dixneuf & Poncier, 2007).

Male circumcision is common in most of West Africa. In many countries, the procedure is considered to be almost universal among the adult population. However, male circumcision seems not to be traditionally practised in some areas such as central-eastern Côte d'Ivoire, central Ghana, and southwest Burkina Faso (28% among the Lobi in southwest Burkina Faso; while the national prevalence is 90%). Many countries in Central and Eastern Africa have at least 50% male circumcision among their adult population: the prevalence varies from approximately 2 and 5% in Burundi and Rwanda to 70% in Tanzania, 84% in Kenya and 93% in Somalia. In southern Africa, the MC prevalence is the lowest: around 15% in several countries (Namibia, Swaziland, Zambia, Zimbabwe) although higher in others (Malawi 21%, Botswana 25%, South Africa 35%, Lesotho 48%, Mozambique 60%, Angola 66% and Madagascar 80%). The cultural history of male circumcision varies in many countries it is described as a very ancient practice. In some areas, it has been abandoned after centuries of practices. Historians believe in Botswana, southern Zimbabwe and parts of South Africa and Malawi, circumcision was stopped by European missionaries and colonial administrators. In Zululand and Swaziland male circumcision was abandoned during wars in the early 19th century, presumably because of the difficulty of holding the circumcision schools during the continual fighting (UNAIDS, 2007a).

African countries given priority to scale up MC include those with an HIV prevalence of above 5% and a MC prevalence of less than 80%. Such countries include in East and Central Africa: Central African Republic, the Congo, Kenya (Nyanza Province),...
Uganda and Tanzania, and in Southern Africa: Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia, and Zimbabwe (see Table 1).

**Theoretical framework**

The complexity of the issues around male circumcision in Africa is often obscured by the question of the frequency of male circumcision and of its association with HIV. There are very few attempts to understand the conceptual and philosophical aspects and the broader social and cultural dynamics involved. Thus strictly biomedical approaches may encounter problems of acceptability and of sustainability in local cultures. It could also lead to the misconception of MC as a sort of a “magic bullet” against HIV, which could have an adverse effect on other preventive methods.

Male circumcision in most of Africa is a holistic concept with multiple and interconnected dimensions – religious, spiritual, social, biomedical, aesthetic and cultural. The traditional male rite precedes marriage, typically entails physical brutality, seclusion, testing, esoteric knowledge, death and rebirth imagery, name changes, dance, masked costumes, and dietary and sexual taboos. The rite fuses Islam with local traditions, mediates intergroup relations, and integrates the sociocultural system (Silverman, 2004).

Thus, in order to be successful, the promotion of male circumcision (as HIV prevention) should certainly leave the narrow realm of biomedical paradigms to be integrated into global, socio-cultural approaches. In many ethnic groups in Africa, male circumcision means the removal of the whole foreskin of the penis. But in some other groups (in southern Africa as well as in West Africa), male circumcision refers to any ritual operation on the foreskin. Thus, for example, the Balante or Balanta Brassa people in Guinea Bissau make a distinction between “small circumcision” (Foo ntiufa) and “large circumcision” (Foo or Fanadoo Garandi). Large circumcision is the removal of the whole foreskin, whereas small circumcision is an incision made on the foreskin. It takes place when the man is 18-20 years of age. Small circumcision is a “would-be” circumcision and is considered as a kind of preparation for the large circumcision, which occurs at age 30 to 40, and with which it shares the same ontological meaning. The small circumcision socially allows sexual relations only with a woman who has already had sexual relations only with a circumcised man. The understanding of local taxonomies of

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“circumcision” and operations around the penis seems to be crucial to tailoring promotion of the removal of the whole foreskin (Niang & Boiro, 2007).

Due to the importance of symbolism and of codification for body modifications, it seems important to avoid reducing the study of MC to quantitative approaches. Thus it appears important to integrate an hermeneutic approach, which could give voice to local people and help social scientists to analyse how male circumcision is conceptualized in connection with their own philosophical systems, social dynamics, gender relations and symbolic modes of learning and transmitting knowledge.

Male circumcision offers the opportunity to re-engage with religious and ethnic groups in HIV prevention. Because such practices carry major religious, social and cultural meaning for many of these groups, some of whom have not always been comfortable with HIV prevention, male circumcision as an HIV prevention strategy could provide new avenues for dialogue. Many groups with diverse social histories that practice male circumcision for religious and ethnic reasons exist worldwide. In mapping the context of existing practices and strategies for potential interventions, local religious institutions and leaders should be consulted and should occupy central roles in advocating for HIV prevention (Niang, 2006).

Age and type of circumcision varies by country and ethnicity
There is considerable variation in the age at which circumcision takes place, which may have effects on HIV prevalence. Neonatal circumcision is common in West Africa, but is uncommon in East and southern Africa, where median age at circumcision varies from boyhood to the late teens or twenties. In several countries, prevalence of non-religious circumcision has undergone rapid increases and decreases, reflecting cultural mixing and changing perceptions of health and sexual benefits. Connolly, Simbati, Shammugam and Nqeketo (in press) found in a national survey in South Africa that of 1067 men 15 years and older who had been circumcised, the majority (57.2%) had been circumcised traditionally and 42.8% medically. The vast majority of Whites (97.8%), Indians (92.8%) and Coloureds (87.4%) were circumcised medically, compared to only 21.8% of black Africans.

Safety of MC
Methods of male circumcision in non-clinical settings
Male circumcision for religious or traditional reasons frequently takes place in a non-clinical setting, although in some cultures an increasing proportion now takes place in clinics (Bailey & Egesah, 2006; Doyle, 2005). The usual procedure, of which almost all ritual circumcisions are variants, involves pulling the foreskin forward and cutting through the prepuce above the level of the glans, sometimes using a shield to protect the glans. Among the Xhosa of South Africa, circumcision is carried out using a razor blade or penknife (Doyle, 2005), without anaesthesia (Mayatula & Mavundla, 1997). The wound is covered with
eucalyptus leaves (Doyle, 2005) or often maize leaves (Naudé, 2002), and left in place for four weeks while the boys are in seclusion. Traditional circumcision can also be more painful than clinical circumcision, as use of anaesthetics is rare (Ozdemir, 1997), probably due to the perceptions of circumcision as a marker of bravery and endurance (Doyle, 2005).

Adverse events associated with male circumcision in non-clinical settings in Africa

Accounts of serious complications or adverse events after infant, adolescent and adult circumcision in traditional settings in Africa are legion. There are reports listing adverse events from traditional circumcision generated from hospital records (e.g., Ahmed, Mbibi, Dawam & Kalayi, 1999; M’atula & M’avundla, 1997; M’ogotlane, N’tangulela & O’gunbano, 2004); while the Eastern Cape provincial Department of Health in South Africa recorded 2262 hospital admissions, 115 deaths and 208 genital amputations for circumcisions between 2001 and 2006 (Meissner & Buso, 2007). Among the Babukusu ethnic group in western Kenya a more detailed examination of 298 adolescent boys at 45-96 days post-operation showed that traditional circumcision was associated with slower healing, more swelling, laceration and keloid scarring (Bailey & Egesah, 2006). Peltzer, Nqeketo, Petros and Kanta (submitted) found high rates of complications for 192 initiates physically examined by a trained clinical nurse at the 14th day after traditional circumcision: 20.8% had mild delayed wound healing, 16.2% had a mild wound infection, and 10.4% had insufficient skin removed.

Safety of male circumcision in clinical or medical setting

In a review of 14 studies on MC acceptability in sub-Saharan Africa, Westercamp and Bailey (2007) have shown high acceptability for MC ranging from 60-80%. The highest acceptability of 80% was in mothers for their sons. Most people interviewed preferred to be circumcised at a low cost in a hospital by a trained medical person (ibid.). The adverse events report in the three randomised control trials was under 2%, in about 10,000 young men who were circumcised. The adverse events were all mild and reversible. In a non research setting, where over 1600 male circumcisions had been done, a similar adverse events rate of 2.5% was reported (Bowa & Lukobo, 2006).

Gender and sexuality

One missing link in studies around the potential use of MC for HIV prevention seems to be the consideration of women and gender issues. Because of the feminisation of HIV in Africa, research on the status and social interactions of women in the process of male circumcision could be particularly useful. Gender has been identified as a key crosscutting issue in addressing the HIV and AIDS epidemic in sub-Saharan Africa. Thus, a gender analysis provides a transversal approach for the understanding of HIV and AIDS determinants as well as for development of responses. The definition of gender refers to social and cultural constructions that structure social relationships between and among men and women. The analysis of gender relations has brought to the fore the fundamental issue of power and decision making. In some traditional settings, women and mothers play important roles in the decision making process concerning MC and in the fabric of preparation and post operation processes. But prevailing studies do not seem to have included investigation of the role of women in decision making processes related to male circumcision; and neither have the effects of male circumcision on women and gender been studied. Scott, Weiss and Viljoen (2005) suggested that in South Africa women are likely to have only an indirect influence, through the male perception that women enjoy sex more with circumcised men. A different study from South Africa found that women had a strong influence on men’s decision to circumcise, often scheduling the appointment for their boyfriends or husbands (Rain-Taljaard et al., 2003). Thirteen percent of circumcised participants in another South African study (Lagarde et al., 2003) reported undergoing circumcision because their partner expressly requested it.

Although randomised trials conducted in South Africa, Uganda and Kenya may suggest that an increased sexual risk behaviour may not occur, promotion of MC could have the undesired effect of encouraging practices of female genital mutilation, which could be based on the same ontological principles. Thus, analysing both male and female circumcision could help to foresee possible adverse effects (Niang, 2006; WHO/UNAIDS, 2007).
Body and stigma

Analysis of male circumcision cannot avoid consideration of cultural constructions of the penis and of the body, and the issue of how these are linked to constructions of masculinity and womanhood, which in turn raises issues of gender constructions. From a cultural analysis perspective, the body functions as a fundamental metaphor, an important surface on which the marks of social status, family position, tribal affiliation, age, gender and religious condition may be displayed or hidden. Rites of passage are often indicated by ritual and social transformation of the body. For many social scientists the body forms an implicit foundation of stigma. The symbolic significance of the body plays an important role in social interaction.

Discrimination and stigmatising practices (such as sexual and marriage taboo) have been documented in relation to non-circumcision in several parts of Africa. Such practices may extend to entire ethnic groups who do not traditionally practice circumcision. Interventions on the body, if not well constructed, can lead to perverse effects of stigma, in particular upon groups and social categories already stigmatised such as commercial sex workers and men who have sex with men (Niang, 2006).

Building synergies between traditional and clinic settings

In many African regions, most circumcisions are done by traditional circumcisers. In Lesotho, for instance, traditional circumcisers perform about 8000 circumcisions a year, substantially outnumbering those done by the health-care system, which already has a shortage of physicians. Yet current WHO and UNAIDS guidelines emphasise male circumcision as a clinical practice within health delivery settings. We are now provided with the opportunity to re-assess this approach; this bias toward an already overwhelmed health system runs the risk of retarding scale-up of male circumcision and unnecessarily confining its benefits to those who have access to health care (Sawires et al., 2006).

Studies also failed to investigate possibilities of synergy between traditional systems and clinic-based systems, in particular between the holistic nature of meaning and of the preparation for circumcision in many African traditional settings (with attention given to community mobilisation, to the emotional, educational, social and philosophical aspects, and to relations with women) and the biomedical performances achieved in clinical settings (Grant et al., 2004).

Constructing synergies could perhaps suggest improvements in technical procedures used in traditional settings. It could also lead to reflection on how the process of social control on the part of communities can take place. Systems of post-operative follow-up and of traditional initiation have been so little studied that they risk being in conflict with clinical approaches. Few studies pointed out lessons to be learned regarding traditional concepts surrounding cultural and social aspects of the circumcision after the operation: in many parts of Africa, male circumcision is perceived as the source of new social relations. Men who were circumcised in the same group are considered to be bound by undying closeness, even stronger than that with a parent. In some ethnic groups in Senegal, extramarital sex with the wives of men who were circumcised together is forbidden as a sexual taboo (Niang, 2006).

The post-operative period is often constructed as a critical period for the transmission of (esoteric) knowledge and the codes needed to interpret the symbols and signs that constitute the messages they will be given. The initiates learn how to interpret the hidden meaning of words which, if analysed literally, may seem incoherent. The period of initiation also includes coded sexual education. Sexual reserve and control are stressed. The young circumcised men are told that they must avoid sexual relations for some time, otherwise their foreskins will grow back again, and they will have to undergo a new, even more painful circumcision (Niang & Boiro, 2007).

Legal contextual factors

MC raises numerous human rights issues which relate to research as well as interventions and policies. In July 2006, President Thabo Mbeki of South Africa signed into law the Children’s Act which contains a clause that no male under the age of 16 may be circumcised except when, “performed for religious purposes in accordance with the practices of the religion concerned”, or “for medical reasons on the recommendation of a medical practitioner”. Three of nine provinces in South Africa have enacted legislation, which pertains to the issue of circumcision. The
relevant pieces of legislation are (1) Northern Province Circumcision Schools Act No. 6 of 1996; (2) Application of Health Standards in Traditional Circumcision Act No. 6 of 2001 (Eastern Cape), and (3) the Free State Initiation School Health Act No. 1 of 2004. These laws deal with the observation of health standards in traditional initiation schools, the granting of permission for the operation of circumcision schools and, generally, with the granting of permission to conduct circumcision. Parental consent is also provided for if the boy is below a prescribed age. Further, each prospective initiate must be examined by a medical doctor to ensure that he is “fit and healthy” to undergo circumcision and initiation into manhood (Province of the Eastern Cape, 2001).

The Government of Botswana also recently mandated that all mothers of newborn boys should be counselled on the potential health benefits of circumcision (Wilson & De Beyer, 2006). These two examples appear to reflect divergent views, with the South African law appearing to limit, and the Botswana law appearing to encourage informed access to MC. In those countries considering the introduction or expansion of male circumcision services, it is recommended that law, regulation and policy be developed to ensure that male circumcision services are accessible, acceptable, and provided safely and without discrimination. The development of such laws, regulations and policies requires the engagement of parliament; legal, health and regulatory authorities; and communities where male circumcision services will be implemented (UNAIDS, 2007b).

We are advocating the following research agenda:

- To assess the situation of MC in various countries in Africa, its meanings and social and cultural factors associated with MC
- To analyse types of MC (in relation to age, type of procedures, traditional or clinical mode) in association with HIV/AIDS risk
- To analyse involvement of women and gender roles in MC decision making processes, as well as acceptability among women and marginalised groups such as commercial sex workers and men who have sex with men
- To analyse social effects and ways to mitigate/avoid adverse effects of MC
- Develop models for scaling up (including of synergies between traditional and modern settings and including legal, structural responses)

- To determine when keratinisation occurs and when the protective effect of MC commences; and to determine easier and quicker MC techniques

Research areas (AIDS Vaccine Advocacy Coalition, 2007; Dam & Anastasi, 2000; UNAIDS, 2005; UNAIDS/CAPRISA, 2007)

1) Review prevalence of male circumcision by country (and region, province, ethnicity) with age of circumcision and cultural regions

Analyse HIV prevalence, MC prevalence and its associated factors (age, region, province, ethnicity, religion, socioeconomic status, level of education). Better data on the prevalence of MC (both medical and ritual) in Africa and on the age at circumcision, preferably at the sub-national level, are needed. Data are also needed on current circumcision practices, especially with regard to safety.

2) Assess perceptions and understanding of MC among both men and women (including CSW and MSM). Conduct descriptive behavioural studies in areas where MC is currently being done on adolescents and adult males, comparing pre- and post-circumcision sexual risk behaviours to estimate the net behavioural effect of MC. Acceptability studies of MC interventions amongst community leaders, religious leaders, government officials. Evaluate government education campaigns promoting male circumcision.

At present, little is known about how male circumcision affects or changes men’s sexual identities and sexual experience at the individual level, and/or how these factors play into individual decisions to seek circumcision. Gathering this information is critical, as it will help inform communications campaigns that address assumptions, beliefs and desires underlying uptake of male circumcision. These issues will differ by community, sexual orientation, economic status and many other factors, and therefore must be addressed in multiple, localised projects. Education campaigns that explain interventions are nearly non-existent. The communication of concepts such as “partly effective” or “protection derived from combining interventions...
with condoms” needs social scientists working together with communities to help grasp the nature of risk and protection (Ayodo, 2007).

Communication approaches should occur at the national level, such as media campaigns that encourage safe male circumcision as part of a comprehensive approach to prevention, as well as local and interpersonal communication strategies. Information about safety, quality, and the need for a combination approach to male circumcision interventions is critical, especially for countries engaging in service delivery activities.

Studies are needed to determine whether there are modifications in perceptions and HIV risk behaviour over the longer term in men who are circumcised for HIV prevention and in their communities.

Circumcision could result in increased stigma for individuals who do or do not undergo the surgery. We also encourage a focus on stigma, as it is possible that male circumcision could have a beneficial effect on HIV and AIDS stigma. It will be important to repeat qualitative studies that shed light on these over time, as events change. The perspective of parents also needs to be included.

Regarding whether to speak of ‘before’ or ‘as’ we scale-up, we prefer ‘as’ rather than ‘before’, because some people suggest that we should first of all wait until we have all the evidence. We prefer learning as we go in the same manner as scaling-up of HAART has occurred. There were those who said we needed more information to start scaling up antiretroviral treatment programmes; another group said let us start and we will learn along the way. However, there has to be an acceptable minimum of information before we start scaling-up; we need high-quality social and behavioural research that prepares the ground, highlights potential pitfalls, and flags unanticipated consequences. We also need the courage to learn from experience (Imrie, Elford, Kippax & Hart, 2007).

4) Develop and field-test a rapid assessment tool for the introduction of male circumcision; assess the acceptability of MC to health care workers, both in traditionally circumcising and non-circumcising communities; pilot MC intervention in a non-MC community; test the feasibility of different service delivery models, including the use of mobile clinics.

Research on MC delivery models may include stand alone adult male circumcision units in hospitals, counselling component GPs, integration of medical MC into initiation into manhood, or the feasibility of rolling out infant circumcision, perhaps as part of antenatal care and packaged with programmes to prevent mother-to-child transmission (PMTCT).

MC delivery modalities could be researched and evaluated in terms of: (1) MC counselling modalities (What is the minimum counselling message for young men, for mothers with infants? MC pre-group counselling; one-to-one counselling with doctor/paramedical officer who performs surgery); (2)
the counselling message (the limitations of MC as an HIV risk-reduction measure, i.e., MC reduces but does not eliminate HIV risk); (3) the ongoing need to use other methods of protection; HIV testing and prevention; postoperative instructions (e.g., danger signs, routine follow-up); and other reproductive health topics, as well as links or referrals to other services; and (4) MC follow-up appointments and counselling to ensure normal healing and to assess for complications.

5) Pilot HIV testing for men seeking medical male circumcision (outside initiation into manhood)

At pre-circumcision medical examination, VCT and HIV risk reduction counselling should be offered in selected sites and evaluated. Preparation guidelines on pre-circumcision assessment, including VCT male circumcision should be part of a comprehensive HIV prevention package, which includes the provision of HIV testing and counselling services, family planning counselling and treatment for sexually transmitted infections, the promotion of safer sex practices, counselling on behaviour change; a gender component that addresses male norms and behaviors; and the provision of male and female condoms and promotion of their correct and consistent use. Counselling of men and their sexual partners is necessary to prevent them from developing a false sense of security and engaging in high-risk behaviours that could undermine the partial protection provided by male circumcision. Further, “post-MC clubs” should be established for young men, to be able to come back after the procedure, talk about their new MC status, discuss the “ABCs” of prevention, get condoms, etc. This might help compensate for the absence of the group education and socialisation experience that occurs during the seclusion period of traditional initiation/rites of passage practices.

6) Post-circumcision (both medical and ritual) HIV risk reduction counselling

There should be testing and evaluation of post male circumcision HIV risk reduction counselling in a single 60 min individual or 3-hour group intervention during following MC. In the context of traditional MC, VCT should be offered at the post MC counselling session. The assessment of behavioural disinhibition among men who undergo male circumcision for HIV prevention is to be included (Agot et al., 2007).

7) Randomised controlled studies

Randomised controlled studies indicated that most infections occurring in circumcised men occurred in the first 6 months following circumcision. One of the protective mechanisms postulated for the efficacy of MC is the keratinisation or thickening of the skin around the frenulum of the penis and the residual cuff of the coronal mucosa (Szabo & Short, 2000), which is a barrier to HIV transmission. It appears that this process takes some time to occur following circumcision. The exact time that this occurs will be important both in counselling and the determination of when sexual relationships can recommence following MC. The current estimates of the cost of a single circumcision is 59 USD per circumcision and a minimum duration of 30 minutes (Wilson & De Beyer, 2006). If cheaper techniques can be developed this will reduce the cost, the duration of the procedure, as well as the skill level of the providers, all of which will serve to increase acceptability.

8) Longer-term studies on cost, safety and outcomes of MC in the context of HIV prevention; input into national strategic plans

Research is needed into the development of national strategic plans for male circumcision for countries with the highest HIV prevalence, including assessment of current capacity, the development of a single sentinel surveillance and reporting mechanism, clear guidelines on basic standards of care, plans for complication triage, measurable targets, cost analyses, and specific assessment of internal ethnic group practices. The development of such plans should include traditional practitioners and religious groups. Research on the ethnic and cultural dynamics of MC scale-up is needed.

There should be development of regionally specific tool kits for ministries of health, that outline standards, triage, and surveillance techniques. These kits would include manuals and modules for training of practitioners as well as for the training of trainers. Training should proceed immediately in medical and nursing schools in resource-poor settings. This should be a priority for multilateral and government organisations. Regional centres of excellence should be established with responsibilities for training practitioners, monitoring quality, and assessing outcomes.

In the above an overview is provided on different MC implementation strategies, most African countries not
having embarked on any steps on MC implementation.

References


ORIGINAL ARTICLE

Editorial review: Male circumcision, gender and HIV prevention in sub-Saharan Africa: a (social science) research agenda

TABLE 2. OVERVIEW OF EXAMPLES ON MC IMPLEMENTATION STRATEGIES

<table>
<thead>
<tr>
<th>Country</th>
<th>Policy/Guidelines/Implementation strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>Took a policy decision to offer male circumcision as a routine part of antenatal care at all health facilities some years ago, but this has not been implemented</td>
</tr>
<tr>
<td>Kenya</td>
<td>Undergo modern MC by medical professionals</td>
</tr>
<tr>
<td>Malawi</td>
<td>The National AIDS Commission has been holding nationwide stakeholder meetings on MC and HIV. No decision has been made at policy level as to whether MC is to be adopted.</td>
</tr>
<tr>
<td>Rwanda</td>
<td>Embark on a sensitisation campaign to have males circumcised as one way of combating HIV and AIDS. Mass male circumcision (initially target the army, police &amp; higher education students) Ugrading the equipment in hospitals and health centres for safe MC Receive procedure at recommended medical centres from qualified medical workers</td>
</tr>
<tr>
<td>South Africa</td>
<td>The national strategic plan recommends that recent findings about the protective effects of male circumcision be translated into policies and programmes.</td>
</tr>
<tr>
<td>Swaziland</td>
<td>Standardisation of all aspects of male circumcision is “high priority”, and new formats for patient evaluations, consent, post-operatory instructions and follow-up have been introduced for use in all Swaziland’s circumcision facilities Training in public health sector in MC; country wide register for MC Mobile military hospitals should be established in villages to provide MC</td>
</tr>
<tr>
<td>Zambia</td>
<td>Improve the quality and accessibility of comprehensive MC and male RH services in Zambia Male reproductive health/male circumcision (RH/MC) service site at Lusaka’s University Teaching Hospital (UTH) Standardisation of the MC procedure among providers performing it Development and standardisation of training and patient education materials</td>
</tr>
</tbody>
</table>


Full text version of SAHARA J available online at www.sahara.org.za
Adeyemi Ezekiel Oluwagbemiga

ABSTRACT
Current statistics about the HIV/AIDS epidemic in Nigeria do not reveal the broader social and economic impacts of the disease on the family. The study therefore primarily aimed to address the socio-economic effects of HIV infection on individuals and their families. The study was carried out in Lagos State. In-depth interviews were employed to collect information from 188 people living with HIV/AIDS through support groups in the state, while four focus group discussions were conducted to elicit information from people affected by AIDS about the socio-economic impacts of HIV/AIDS on families in Nigeria. From the survey, among people living with HIV/AIDS, 66% of females and males were in the age group 21-40 years, while 10% were older people above 60 years of age. Findings revealed that as HIV/AIDS strikes at parents, grand parents are assuming responsibility for bringing up the children of the infected persons and the orphans of those killed by the virus. It was striking that some of the older caregivers could not meet the requirement of these children. They are often forced to work more than they would have, or borrow in order to cope with the needs of these extra mouths. Some of the infected people have sold their properties to enable them to cope with the economic effects of the virus, while their children have had to drop out of school, since they could not afford the school fees and other related expenses. It was suggested that PLWHA should be economically empowered with adequate medical treatment, in order to reduce the impact of the disease on the family.

Keywords: Family, orphans, HIV/AIDS, Nigeria

RÉSUMÉ
Les chiffres actuels de l’épidémie du VIH/SIDA au Nigérian ne montrent pas l’étendue de l’impact social et économique de la maladie sur la famille. Cette étude a pour but de combler les lacunes des effets socio-économiques de l’infection par le VIH sur les individus eux-mêmes et leurs familles. L’étude a eu lieu dans l’État de Lagos. Un entretien détaillé a été employé afin de recueillir des données auprès de 188 personnes vivant avec le VIH/SIDA à travers des groupes de soutien. De plus, il y a eu quatre discussions de groupes de foyer avec le but de tirer les plus d’informations possibles auprès de personnes touchées par le SIDA (PABA) concernant l’impact socio-économique du VIH/SIDA sur les familles au Nigérian. D’après l’étude, parmi les personnes vivant avec le VIH/SIDA, 66% de femmes et d’hommes sont âgés de 21 à 40 ans. Alors que 10% ont plus de 60 ans. Les résultats montrent que lorsque les parents sont atteints par le VIH/SIDA, les grands-parents prennent le relèvement de s’occuper des enfants de personnes infectées ainsi que les orphelins de ceux qui meurent du virus. Il est frappant de constater que certaines personnes qui sont censées assurer les soins ne peuvent satisfaire les besoins de ces enfants. Celles-là sont obligées de travailler plus qu’il en faut, ou emprunter afin de faire face aux besoins de ces bouches supplémentaires à nourrir. Les autres personnes infectées ont déjà vendu leurs propriétés pour pouvoir faire face aux effets économiques du virus. Dans d’autres cas, les enfants sont amenés à abandonner l’école faute de ne pas avoir des moyens pour payer les frais d’études, ni d’autres dépenses. Il a été suggéré que les personnes vivant avec le VIH/SIDA (PLWHA) doivent être soutenues économiquement en leur donnant un traitement médical adéquat. Cela réduira l’impact de la maladie sur la famille.

Mots clés: Famille, orphelin, VIH/SIDA, Nigérian.

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INTRODUCTION
The spread of HIV/AIDS is different from that of other epidemics that have occurred in human history, owing to the fact that it touches sexual behaviour and death, and remains hidden for much of the time. The latency period for HIV to reach full blown AIDS on average is 10 years, and patients need long-term care and support. Mode of spread of the disease is another factor that makes it different from other recent diseases. Globally, an estimated 38.6 (33.4-46.0) million people worldwide were living with HIV in 2005. An estimated 4.1 million became newly infected with HIV, and estimated 2.8 million lost their lives to AIDS (UNAIDS, 2006).

HIV/AIDS now causes more deaths than any other infectious diseases, having overtaken malaria and tuberculosis. It is the fourth biggest killer in the world (after heart disease, stroke and respiratory diseases) and has become the single largest cause of death in Africa (Maitin & Spence, 2000). It has become a social catastrophe in Africa, especially in sub-Saharan Africa. HIV/AIDS turns children into orphans, women to widows and weakens the breadwinner. In addition to its appalling human consequences, it weakens societies, destroys productive forces, reduces life expectancy, and demolishes social structures (UNAIDS, 2002).

HIV/AIDS is not only a terrifying illness, it is also a major challenge to development. HIV/AIDS and the inaccessibility of available means to prevent and treat it (especially in developing countries, where 90% of the infected people are concentrated), is a demonstration of the disastrous human consequences of a world characterised by an unequal and unfair distribution of resources (Horizons, 2001) pointed out that most of the people affected by HIV are men and women in their most productive and reproductive years. They eventually leave behind children and dependants when they die. The orphans are left to take care of themselves. With regards to children, the 2004 UNAIDS report on the global HIV/AIDS epidemic revealed that by the end of 2003, 43 million children (12% of all African children) were orphaned in sub-Saharan Africa, 12.3 million (32% of all African orphans) of those were due to AIDS, while about 15 million children under the age of 18 had lost one or both parents to AIDS. More tragic yet is the rate at which infections among these children are increasing, and with no access to sophisticated medical care, these children have little chance of surviving. Thirty-three percent of children born to HIV/AIDS mothers will probably be infected with HIV at birth (UNAIDS, 2001). This means that over two thirds of the children of HIV-infected mothers, even if they may be lucky not to be infected at birth, will become orphans before school age.

Given the heavy burden the epidemic places on women, children and relatives, there is a need for more information on the socio-economic consequences of this disease, as little has been done in this area. By killing productive adults who are the key family providers, HIV/AIDS shatters social networks that provide households with community help and support. Survivors are left with few relatives upon whom to depend. The consequences of modernisation and present day economic realities have eroded this traditional safety net for many Africans. The support of the extended family kinships no longer exists in many countries. Yet, some of the rights intrinsic to kin relationships of the past are still sometimes in place, but without the obligations they entailed. Property grabbing commonly takes place these days where relatives of the deceased may emerge to take possession of his property, not offering the widow and children the care and support that were part of this custom. The widow and her children are therefore often left dispossessed (Yamba, 1997).

The family, which is the agent of socialisation, has been dissolved, due to the presence of the disease within the households, as parents die and children are sent to relatives. It is pertinent to pose these questions: Can social relationships and family ties still remain strong in urban centres with the rate of transmission of this disease? What are the impacts on the well-being of the family? What are the impacts of this disease on the education of orphans and vulnerable children? These are some of the questions this paper attempts to answer. In addition, fighting complex diseases like this requires constant re-appraisal of strategies in the light of new knowledge. It is based on this that the impact of this disease within the household system is examined.

METHODS
The study location was Lagos State, which is the most heterogeneous state in the country. Apart from the major ethnic group, which is Yoruba, it consists of...
HIV/AIDS and family support systems: A situation analysis of people living with HIV/AIDS in Lagos State

representatives of all the ethnic groups in the country with diverse social, economic, political and cultural characteristics. Lagos is situated in the south western part of Nigeria, and the boundaries of this vast area are defined by the Atlantic coastline in the south, the Republic of Benin in the west, while the north and east boundaries are shared with Ogun state. It occupies 3,577 square kilometers, which represents only 0.4 percent of the entire area of the country (Odumosu, 1999). It has a population of about 9,013,534 which represents over 6.2% of the national population of 140 million (National Population Commission, 2006). The state has a very high population density of 1,300 persons per square kilometers, which is over 15 times the national average of 85 persons per square kilometer. The dominant presence of Lagos metropolis as the former Federal Capital Territory, the commercial centre, as well as her strategic location on the Atlantic, indicate the uniqueness of the state. The state has 20 Local Government Areas (LGAs), which are divided into three categories. The urban LGAs are Ikeja, Lagos Island, Lagos Mainland, Mushin, Oshodi-Isolo, Somolu, Surulere, Eti-Osa, Papa, Amuwo Oofin, Ajeromi/Ifelodun and Agege. The semi-urban LGAs are Alimosho, Ojo, Badagry, Ifako/Ijaiye, Ikorodu and Kosofe. Only two LGAs, Epe and Ibeju-Lekki are categorised as rural (MOEP, 1999).

Focus group discussions (FGD) and in-depth interviews were used to collect information from people affected by AIDS (PABA) and people living with HIV/AIDS (PLWHA) respectively. A different approach from other sample surveys in the social sciences is needed for PLWHA, since research into HIV/AIDS infection is unlike any ordinary phenomenon in demography, due to the stigma and discrimination attached to the disease. Even at the best of times, demographic data are affected by distortions and misinformation (Bleek 1981; 1987). AIDS is a disease whose sufferers have been stigmatised and blamed for the outbreak and spread of the disease (Safo, 1993). Therefore, patients who agreed to be interviewed could be considered as those motivated enough to share their experiences with others (Awusabo-Asare, 2000). A related issue in AIDS research is ensuring confidentiality. Thus, in dealing with AIDS patients, it is not possible to obtain a “representative sample” as is normally done in population studies. Due to this, a purposive sampling technique was used. PLWHA were identified through the help of four urban support groups that were dealing directly with PLWHA. These organisations were reached through Family Health International (FHI) Lagos, an international non-governmental organisation. The consent of each of the interviewees was sought by completing a consent form before the interview. The researcher also employed the services of one HIV/AIDS counsellor, who counselled each of the respondents about how to cope with the virus. From these organisations, 188 PLWHA were interviewed by the researcher and four research assistants in either English or the local language. Each interview took about one hour and was based on a structured interview guide to elicit information about HIV/AIDS history, sexual behaviour (both pre and post diagnosis), social and economic consequences of living with HIV/AIDS, and care and support received from family and relatives.

Focus group discussions were used to gather detailed information from PABA. The purpose of using FGD in this study was to elicit in-depth information about perceptions, attitudes, impact of the disease on the family, and experiences of care and support for PLWHA. Due to the nature of the study and because the disease has been seriously stigmatised, the assistance of the Society for Women with AIDS in Africa and AIDS Alliance Nigeria (both NGOs based in Lagos) were solicited. These NGOs facilitated the survey and identified PABA to participate in the FGDs. Overall, four FGDs were conducted (1 female FGD and 1 male FGD in each of the two NGOs). Each FGD was made up of an average of 10 people and conducted by sex. Forty people between ages 15-65 years participated in the FGDs. This was to ensure maximum participation, optimise group dynamics and maximise the possible range of experiences among group members. Participants included husbands, wives, relatives and children of the infected people (see Appendix 1).

The discussions from the FGDs and IDIs were transcribed and translated verbatim. Analysis involved developing a system of indexing the data into sets of categories or codes that provided structure to the data, based on the research objectives and the topics included in the interview guides. A qualitative ZY-index software package for ethnographic data was used for textual data analysis. This does not allow for the use of percentages and statistical analysis. Data from the FGDs have been extensively used in this paper.
HIV/AIDS and family support systems: A situation analysis of people living with HIV/AIDS in Lagos State

RESULTS
Socio-economic characteristics of PLWHA
Findings from Table 1 show that 11% of those infected with HIV were less than 20 years of age, while 66% of female and 44% of male respondents were in age group 21-40 years. From the survey, about 10% of respondents above 60 years of age were also infected with the virus. This is in support of previous findings that older people are also infected with the disease (Anafi, 1993). From the sample survey, more males who were single reported that they were infected compared with females, while more than half of female respondents who were married were infected. The pattern of the distribution reflects the fact that most women enter sexual relationships earlier than males; and some are involved in unprotected sex with men older than them. In many societies, women cannot insist on condom use or refuse sexual advances from their partners, even if they are young or know that their partners are HIV positive. It is of interest to note that 11% of females who were divorced were infected, as they were not under any marriage obligations.

Various ethnic groups have cultural values and traditions which could have an impact on HIV/AIDS infection and transmission. Attitudes of each of these ethnic groups to sexual activities determine rates of infection. The majority of respondents interviewed were Yoruba. This was expected, since the study was carried out in the southwestern part of the country, which is predominantly Yoruba. Surprisingly, 34.6% of the females who were infected were from Edo/Urobo/Effik. These are people from other parts of the country, where many young girls are involved in prostitution and human trafficking (Igbenedion, 2002). This assertion was confirmed by people living with HIV/AIDS, many of whom narrated how they contacted the disease.

A commercial sex worker (Edo woman) said:
I was deported in the year 2001 from Italy where I was doing prostitution. Immediately I came home, I thought my parents have utilized my proceeds judiciously until I found out that they did nothing I had to come back to Lagos to meet my friends and who introduced me again into the job. It was last year when I fell sick that I was confirmed to be HIV positive.

Another Urhobo woman who was also a commercial sex worker said:
After finishing my secondary school and I did not pass my 'O' level examination, my friend came home and encouraged me to join her in Lagos where I can engage in something that will fetch me enough to re-enroll for my examination. On getting to Lagos, I was told that I will make a good living if I am prepared to use what I have (i.e my body). Eventually, I joined her as a commercial sex worker. Early this year, I was confirmed HIV positive.

Two major types of families were identified in the survey. The majority of respondents were non-polygamous (75.4%), while more male respondents (78.3%) indicated that they were non-polygamous than female respondents (68.4%). Thirteen percent of the female respondents were female-headed households.

HIV/AIDS history of PLWHA
The stigma surrounding AIDS infection results in people not seeking expert medical advice until they manifest the symptoms of the disease. Most of the participants indicated that they got to know about their seropositive status at the health facilities when they were already sick, and some when they had tuberculosis. Half of the women discovered their status during childbirth and pregnancy, while few of the participants (both male and female) learned about their status through voluntary medical testing. The implication of this is that some of the infected persons may have been involved in risky behaviour through which the virus could be transmitted to other people. The majority of participants did not visit health
HIV/AIDS and family support systems: A situation analysis of people living with HIV/AIDS in Lagos State

facilities until they discovered one of the symptoms of HIV/AIDS, as indicated by focus group participants.

A female participant said:
When my six-month old baby fell sick, we took her to hospital but she eventually died. It was during the test they did for her that they discovered that she was positive. I then went for similar test and I was confirmed positive, but my husband was negative.

Another Ibo woman had this to say:
My husband fell sick and the ailment was so severe that we took him to the village to see a native doctor, but he eventually died. After few months of mourning, I started experiencing similar things my husband experienced (rashes on my body, sore on my tongue). My sister took me to hospital. I was tested and the outcome was that I was HIV positive. It was then I knew that my husband died of the disease.

Yet another male discussant said:
I was sick and confirmed that I had TB. It was during the test that they discovered that I was positive.

A young woman also said:
I fell sick and I thought it was typhoid. But I realized I was loosing weight; people started getting suspicious about me. Not until my boss in the office advised me to go for HIV test that I discovered I was positive.

Some of the participants who were HIV-positive had been treated for TB before they were confirmed to be positive. Two-thirds of the participants reported that they were told at the health facilities that they had HIV-1, which is the commonest type worldwide, while only a few respondents indicated that they had HIV-2. The reactions of PLWHA when they heard that they were positive varied; some of them felt very bad, while some thought of committing suicide, and others cried and fainted. These reactions were due to the hysteria surrounding AIDS infection and its associated stigmatization, which created a sense of panic and fear. Having discovered that the disease did not have a cure, most of the people living with HIV/AIDS reacted negatively with shock when they heard about their seropositive status. Some thought of their children, wives or husbands and family and what would become of them, especially when they, as breadwinners were infected. This is one of the social impacts of living with the disease.

### Table 1. Distribution of PLWHA by socio-demographic characteristics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Male (N = 61)</th>
<th>Female (N = 127)</th>
<th>Total (N = 188)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-20 years</td>
<td>11.5</td>
<td>11.1</td>
<td>11.2</td>
</tr>
<tr>
<td>21-40 years</td>
<td>44.3</td>
<td>66.9</td>
<td>59.6</td>
</tr>
<tr>
<td>41-60 years</td>
<td>34.4</td>
<td>22.0</td>
<td>26.1</td>
</tr>
<tr>
<td>61 &amp; above</td>
<td>9.8</td>
<td>3.1</td>
<td>3.1</td>
</tr>
<tr>
<td>Total</td>
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<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Marital status</td>
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</tr>
<tr>
<td>Single</td>
<td>44.3</td>
<td>33.9</td>
<td>37.2</td>
</tr>
<tr>
<td>Married</td>
<td>45.9</td>
<td>55.1</td>
<td>52.1</td>
</tr>
<tr>
<td>Divorced</td>
<td>9.75</td>
<td>10.05</td>
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<tr>
<td>Widow/Widower</td>
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<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Ethnic group</td>
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<tr>
<td>Yoruba</td>
<td>54.1</td>
<td>44.1</td>
<td>47.3</td>
</tr>
<tr>
<td>Ibo</td>
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<td>26.1</td>
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<tr>
<td>Hausa/Fulani</td>
<td>9.8</td>
<td>-</td>
<td>3.2</td>
</tr>
<tr>
<td>Tiv/Idoma</td>
<td>-</td>
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<td>23.4</td>
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<td>11.1</td>
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<tr>
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</tr>
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<td>&lt; N50,000 ($380)</td>
<td>78.7</td>
<td>59.6</td>
<td>62.8</td>
</tr>
<tr>
<td>N51,000-N100,000 ($381-$758)</td>
<td>21.3</td>
<td>23.5</td>
<td>22.8</td>
</tr>
<tr>
<td>N101 &amp; above (above $760)</td>
<td>-</td>
<td>16.8</td>
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<tr>
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<tr>
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<td>Primary</td>
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</tr>
<tr>
<td>Secondary</td>
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<td>44.1</td>
<td>34.0</td>
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<tr>
<td>Post secondary</td>
<td>45.8</td>
<td>18.9</td>
<td>27.7</td>
</tr>
<tr>
<td>Total</td>
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<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Occupation</td>
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<tr>
<td>Unemployed</td>
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<td>22.0</td>
<td>22.3</td>
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<tr>
<td>Student</td>
<td>11.5</td>
<td>11.8</td>
<td>11.7</td>
</tr>
<tr>
<td>Trading</td>
<td>21.3</td>
<td>36.2</td>
<td>31.4</td>
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<tr>
<td>Public/Civil servant</td>
<td>--</td>
<td>7.9</td>
<td>5.3</td>
</tr>
<tr>
<td>Artisan</td>
<td>19.7</td>
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<td>6.9</td>
</tr>
<tr>
<td>Retiree</td>
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<td>4.7</td>
<td>10.7</td>
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<tr>
<td>Type of household</td>
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<tr>
<td>Monogamous</td>
<td>78.3</td>
<td>68.4</td>
<td>75.4</td>
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<td>31.6</td>
<td>24.6</td>
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<td>Total</td>
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<td>100.0</td>
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<tr>
<td>Household-heads</td>
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<tr>
<td>Female-headed</td>
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<td>13.7</td>
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<td>Male-headed</td>
<td>100</td>
<td>86.3</td>
<td>89.3</td>
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<tr>
<td>Total</td>
<td>100</td>
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<td>100.0</td>
</tr>
</tbody>
</table>

Source: In-depth interviews with PLWHA.
HIV/AIDS and family support systems: A situation analysis of people living with HIV/AIDS in Lagos State

Corroborating this, a male discussant in one of the focus group discussions said:
I was shocked and went home waiting for the eventualidade. Various thought came to my mind; what about my wife and my aged parents. For days, I could not come out thinking that death will come immediately.

Another female participant said:
I fainted when I heard that I was positive and after I was resuscitated I made a vow to transmit the disease to others since I was infected by a man. But later, my sister told me about SWAAN and I joined the support group. It was then I learnt not to transmit the disease but fight it. Later I joined the voluntary counseling group that fight against HIV/AIDS.

However, more females than males in the study thought of committing suicide when they heard their status. Their reactions were similar to other popular views expressed elsewhere by people with the virus. As reported by Awusabo-Asare and Anafi (1999), many of those found to be positive thought that “it is a disease which affects immoral people and that it has no cure”.

Impact of HIV/AIDS on household income
PLWHA revealed that the disease had affected their income, in terms of money spent on drugs, with little or nothing left for food and clothing. Some mentioned that their income was not enough to buy the ARV drugs, while some pointed out that they had sold part of their properties in order to pay their medical bills. This assertion was also supported by the responses of focus group participants. A 35 years old woman talking about her husband said:

The disease has a great impact on the household income, the drugs are expensive and unaffordable. In some cases will need to borrow money to buy these drugs, since we cannot fold our hands looking at him to die gradually.

A widow:
The disease is like a devourer ones you have it you can hardly meet up again. The experience with my husband has shown that there is no amount of money that you can have, you will still feel the impact on your finances.

Most of the people affected by AIDS who were interviewed pointed out that they had spent most of their money on ARV drugs and medical bills. Some complained that the disease was affecting their business, since they had to take care of infected persons. Taking care of a person with AIDS was not only an emotional strain for household members, but also a major strain on household resources and income. It reduced ability of the care-givers to work, caused mounting medical fees, and pushed affected households into deeper poverty.

**TABLE 2. HIV/AIDS HISTORY OF PLWHA**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>How did you get to know of your status?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I had tuberculosis</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>When I was sick</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>During child birth</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>By doing HIV/AIDS test</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Types of virus had?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV 1</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>HIV 2</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>HIV 1 &amp; 2</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>How did you feel?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt bad</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>I thought of committing suicide</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>I cried and felt devastated</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>I fainted</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Source: In-depth interviews with PLWHA (using Zy-Index table)
Note: + opinion expressed by most of the respondents (above half of the group)
      + opinion expressed by some of the respondents (below half of the group)
      - opinion not expressed at all

**TABLE 3. IMPACT OF HIV/AIDS ON HOUSEHOLD INCOME**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did HIV/AIDS affect your income?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>No</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>If yes, how?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase medical bill</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>No savings</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Sold property</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Ejected by landlords</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Amount spent on ARV/drugs per week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N 0-2,000 ($22)</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>N 3,000-N 5,000 ($23-$38)</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Above N 6,000 (above $40)</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Source: In-depth interviews with PLWHA (using Zy-Index table)
Note: + opinion expressed by most of the respondents (above half of the group)
      + opinion expressed by some of the respondents (below half of the group)
      - opinion not expressed at all
then, a number of medications have been developed to treat both HIV/AIDS and opportunistic infections. Table 4 indicates that the majority of respondents receiving treatment were on ARV drugs, while some revealed that they were not on any treatment. Most were receiving treatment at the teaching hospital. Other places where treatment was being dispensed included General Hospital, Military Hospital, Medical Hospital and private hospitals. Since the majority of patients were on ARVs, the average amount of money spent on the drugs per week was four thousand Naira (N 4,000 = $38, as indicated in Table 3). This shows that to treat and maintain quality of life with HIV/AIDS was expensive, even when considered with the ordinary treatment of ailments. It also implies that almost all the income of the respondents was being spent on drugs, when compared with their total income as indicated in Table 1. Since their income could not cover the costs of medical care, some of the AIDS patients had to sell their property in order to survive and maintain a stable viral load level in their body.

**Impact of HIV/AIDS on household needs**

As shown in Table 4, the majority of respondents indicated that their status had affected the basic needs of the family. This was expected, given the medical costs and levels of income. Most of the people living with HIV/AIDS would not be able to meet the needs of their families, since the majority of them were poor. The respondents indicated that to feed their families was now a problem, while other needs mentioned included clothing, paying house rent and children's school fees. Some of the respondents who were traders explained that the sickness had taken most of the money they were using for their little business. A few of the respondents revealed that they were ejected out of their houses by their landlords because they were unable to pay the rent. Some of the responses of PLWHA and PABA regarding the needs of their families are quoted below.

A female PLWHA:

Yes, my status has affected the need of my children. I am unable to give them the necessary care since my case has grown to full blown AIDS and I am a widow. Two of my children have dropped out of school since I could not pay their school fees.

A male PLWHA:

With my age and the effect of the disease on my health, to maintain the disease, I spend nothing less than N2000 ($19) per week on drugs not to talk of eating good food. I could not cope with their needs and my third born could not further her education, she has to start small business (hawking) so as to sustain the family. The last two are with my aged parents in the village.

Another male PLWHA:

The disease has affected me, last year I was ejected from my former house because I owed the landlord 14 months rent. That is why we are now leaving our family house.

Few of the older caregivers could with the demands of the infected people and their children. This was demonstrated by the responses from caregivers:

Looking after these children is like starting life all over again, because I have to work even more than what I was used to two years ago. I have to feed these children, buy school uniform. I thought I would not do these again, I don't even have the energy to cope with their stress [burst into tears].

I have retired from the public service, 5 years ago. My little pension allowances cannot sustain me.

My petty trading cannot sustain me and these children. The children were left in the hands of caregivers who also could not meet their needs. They could also be exposed to dangers, such as sexual abuse. Some of the respondents explained that their children dropped out.
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of school because they could not afford the school fees and other related expenses. Other reasons for dropping out of school were to help in the family business, and to take care of younger siblings. One major reason why children dropped out was thus to support the family economically. This also made children vulnerable to the disease; while some children were exposed to a lot of risks, especially when they were not well housed.

According to a 16-year old young female PABA:

There is no helper and we don’t want our mother to die, as the first of the five children, I had to stop schooling in order to fend for the family and to take care of our mother since we have lost our father in a motor accident.

As shown in Table 5, people affected by HIV/AIDS supported their infected relatives in a number of ways: some of the respondents revealed that they normally accompanied the patients to the health facilities, some paid hospital bills, especially if the husband was negative, some prayed, some provided financial assistance, and others gave them psychosocial and emotional support.

DISCUSSION AND CONCLUSION

AIDS has created severe economic impacts in areas or countries where its prevalence is high. At the household level, effects of HIV infection are obvious: the death of one partner will affect the family access to resources. The economic effects of AIDS are felt first by individuals and their families. These effects then ripple outwards to firms and businesses and the macro-economy. This has led to rapid transition from relative wealth to relative poverty in some families. The impact of the disease within households will vary according to their productive activities, and the economic and socio-cultural context in which they live.

UNAIDS (2004) explains that household responses differ between urban and rural settings. In urban settings households often resort to informal borrowing and using their savings. Rural households tend to sell their assets, migrate or rely on child labour.

The decrease in household income may lead to the sale of property when ARV drugs are no longer affordable. On average the study showed that N4,000 ($38) was spent on ARV drugs per week, which is more than half of the income of the infected persons. The majority of them were not able to cope with other family responsibilities. Some of the children of the infected persons depended on extended families. On average AIDS care-related expenses absorbed one-third of a household's monthly income.

A South African study found that more than 50% of AIDS affected households were forced to spend less on food, clothing and education to cover the increased medical bills (Steinberg et al., 2003; UNAIDS, 2003)

HIV/AIDS also had impacts on extended families. The responsibilities of taking care of the children usually fell on the grandparents when the infected parents died. Aunts, uncles or other caring adults would assume responsibilities. However, the prevailing harsh economic conditions in the country made it difficult for relatives to provide the traditional safety needed by the children of people infected with HIV/AIDS. It has been established that a decline in school enrolment is one of the most visible effects of the epidemic. The contributing factors included the removal of children to take care of the parents or family members, and inability to afford school fees owing to the death of the parents (UNAIDS, 2004). Research carried out in South Africa showed that the number of pupils enrolled in 2001 in parts of KwaZulu Natal Province was 20% lower than in 1998. This was associated with the impacts of AIDS in the country (UNAIDS, 2002).

Another impact of this disease is that it will lead to an increase in dependency within communities and the nation as a whole. Since the advent of HIV/AIDS, if one or more family members are affected and die, the entire assets and savings of many families, which are generally meagre before the onset of the disease, may be completely spent, leaving the survivors without any means of support. In this study, more households were found to be headed by AIDS widows than by AIDS widowers. Widows with dependent children became...
entrenched in poverty as a result of the socio-economic pressures related to HIV/AIDS. Stigmatisation compounded their situation further, as assistance from the extended family and the community, their main safety net, was severed (FAO, 2001).

In many cultures in Nigeria families are the primary caregivers to sick members. There was clear evidence of the importance of the role that the family plays in providing support and care for people living with HIV/AIDS in the study area. However, not all family responses were positive; infected members in some cases found themselves stigmatised within the home, and in a few cases the widow was sent away.

As a widow stated:
When they found out that I was positive, the community and my husband's family sent me away from my husband's house and they told me that I was the one that killed my husband. They did not allow me to take my properties. It was then I was introduced to this organisation who took care of me.

UNAIDS (2004) reports that the forms of stigma and discrimination faced by people with HIV/AIDS are multiple and complex, with the most burden on women. Research conducted in India and Uganda shows that women with HIV/AIDS are doubly stigmatized, as people living with HIV/AIDS and as women. Some of these women are sent away by their families after the death of their husband and they are denied their possessions, which then makes the woman dependent on her children for survival. By blaming certain individuals or groups, society can exclude itself from the responsibility of caring for and looking after such populations. This can also cause infected people to hide their identity.

Another unfortunate thing is that older people above 60 years of age accounted for about 10% of those infected among the sampled population. This indicates that the grandparents, children of the infected persons will want to rely on, are also affected. Thus, the number of vulnerable children and orphans will increase in the study area. This supports recent findings that older people are increasingly being infected with HIV/AIDS. Child labour and street children will become more common, if the impact of the disease is not properly addressed. In Nigeria, UNAIDS (2004) reports that the number of orphans and vulnerable children in the country has increased to 1.8 million. The vulnerability of AIDS orphans starts well before the death of a parent. Children living with caregivers who have HIV/AIDS experience many negative changes in their lives, including emotional neglect, long before the death of the parent or caregiver. The economic impact of HIV/AIDS illness and death has serious consequences for an orphan's access to basic necessities such as shelter, food, clothing, health and education. Orphans run greater risks of being malnourished than children who have parents to look after them. Nyamkapa and Gregson (2005) reported low rates of primary school completion amongst maternal orphans as a result of lack of support from fathers and stepmothers. Extraordinary efforts are therefore needed to provide for children orphaned by the epidemic, especially in the form of measures that afford them access to education, food, health care and other social support.

Sexual behaviour of people living with HIV/AIDS is of considerable importance for limiting the spread of the disease, especially after diagnosis. This is the period when infected persons need counselling, not only to keep them fit, but also to avoid further transmission of the disease through sex or other means. In a country where counselling of patients is not well developed, knowing the attitudes and behaviour of diagnosed patients towards their condition and to others is important for the development of intervention programmes and to assist patients to lead healthier lives (Awusabo-Asare, et al., 1999). Most PLWHA are not properly counselled when they first discover their status. Some of them continue with their risk behaviour, so that they might have transmitted the infection to other people without knowing the implications, because they were not properly counselled (UNAIDS, 2006). Most HIV/AIDS messages are targeted only at people who are not infected with HIV in order to prevent them from becoming infected. When AIDS education with HIV positive people is considered at all, it is frequently seen only in terms of preventing new infections by teaching HIV+ people about the importance of not passing on the virus. An important and commonly-neglected aspect of AIDS education with HIV positive people is enabling and empowering them to improve their quality of life. HIV positive people have varying needs, but among them are the need to be able to access medical services and drug provision, and the need to
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be able to find appropriate emotional and practical support and help.

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Full text version of SAHARA available online at www.sahara.org.za
Maretha J. Visser

ABSTRACT
The implementation and evaluation of a peer education and support programme in secondary schools to prevent and reduce high-risk sexual behaviour amongst adolescents is discussed. The aims of the programme were to provide accurate information about HIV/AIDS, discuss and reconsider peer group norms, and establish support for learners. In the programme that was implemented in 13 secondary schools in Tshwane, South Africa, peer educators were identified, trained and supported to implement the programme in their schools with the assistance of a teacher and postgraduate students as facilitators. Peer educators organised HIV awareness activities, facilitated class discussions on risk behaviour and gender relationships, and supported learners in solving personal problems. Process evaluation included weekly reports and focus group discussions with peer educators and teachers. A quasi-experimental design involving an experimental and control group, as well as pre- and post-assessments, was used to evaluate the impact of the programme on psychological well-being, personal control, school climate and reported high-risk behaviour of learners aged between 13 and 20 years. The results showed that the percentage of learners in the experimental group who were sexually experienced remained unchanged over the time period of 18 months. In contrast, a significantly increased percentage of learners in the control group were sexually experienced after the same time period. The control group also perceived more of their friends to be sexually experienced. No differences were reported in condom use in either of the groups. The findings of this study suggest that peer education can contribute to a delayed onset of sexual activity, and can therefore contribute to the prevention of HIV/AIDS amongst adolescents.

Keywords: Peer education and support, HIV prevention, school-based HIV education, high-risk behaviour, adolescents.

RÉSUMÉ
Cette communication expose une mise en application et une évaluation de l’éducation par les pairs et le programme de soutien dans des lycées afin d’éviter et de réduire le comportement sexuel à risque élevé parmi des adolescents. Les objectifs de ce programme étaient les suivants : la mise à disposition de l’information précise portant sur le VIH/SIDA, débattre et revoir les normes de groupes de pairs, et établir un service de soutien pour des apprenants. Pendant l’exécution du programme dans 13 lycées à Tshwane, Afrique du Sud, les pairs éducateurs ont été identifiés, formés et soutenus afin d’exécuter ce programme dans leurs lycées avec l’aide d’un enseignant et des étudiants postuniversitaires comme animateurs. Les pairs éducateurs ont organisé des activités de prise de conscience du VIH. Ils ont animé des discussions en classe, sur le comportement à risque et les relations entre garçons et filles, et ils ont enfin soutenu et aidé des apprenants à résoudre leurs problèmes personnels. L’évaluation de ce processus a aussi inclus des rapports hebdomadaires et des discussions de groupes de foyer avec les pairs éducateurs et les enseignants. Un plan quasi expérimental, incluant deux groupes : un groupe expérimental et un groupe de contrôle, a été utilisé afin d’évaluer l’impact du programme sur le bien-être psychologique, le contrôle de soi-même, l’atmosphère au lycée et le comportement à risque élevé des apprenants âgés de 13 à 20 ans. Les résultats ont montré que, d’une part, le pourcentage des apprenants sexuellement expérimentés du groupe expérimental est resté stable durant la période de 18 mois. D’autre part, le pourcentage des apprenants sexuellement expérimentés du groupe de contrôle était plus élevé. Le groupe de contrôle estime que bien plus de leurs amis ont déjà eu des rapports sexuels. Aucune différence n’a été constatée concernant l’utilisation des préservatifs dans les deux groupes. Les résultats de cette étude suggèrent que l’éducation par les pairs peut contribuer à retarder le tout premier rapport sexuel et peut aussi contribuer à la prévention du VIH/SIDA parmi les adolescents.

Mots clés: Éducation par les pairs et le soutien, prévention du VIH, éducation sur le VIH à l’école, comportement à risque élevé, adolescents.

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Background
Young people are at the centre of the global HIV/AIDS epidemic, both regarding new infections and opportunities for halting the transmission of HIV (Monasch & Mahy, 2006). Using a large representative sample of 11,904 young people (Ndaki, 2004), one in ten young South Africans between the ages of 15 and 24 was found to be HIV infected. HIV prevalence among young women was 17%, compared to 4.4% among young men (Shisana & Simbayi, 2002). Currently, the highest rates of new infections occur in this age group (Dorrington, Johnson, Bradshaw & Daniel, 2006). Research results also indicate that many young people are still at risk because of high-risk sexual behaviour, despite sound knowledge about sexual health risks. The level of perceived vulnerability in this group was found to be low, and unprotected sex was common (Campbell & MacPhail, 2002; Eaton, Flisher & Aaro, 2003; Kushlick & Raphael, 1998). However, there is growing evidence from several countries that where HIV prevalence is decreasing, it is young people who are reversing the trends (Monasch & Mahy, 2006), since they are the ones who are more likely to adopt new behaviours. It therefore remains important to focus preventive interventions on young people.

Many HIV preventive interventions that use diverse approaches have been implemented in South African schools over the past decade – with differing results. School-based programmes are often short-term and focus on raising awareness and providing information about the risk of HIV (Logan, Cole & Leukefeld, 2002; Mukoma, 2001). In some interventions, educational drama is used (Dalrymple & Du Toit, 1993; Harvey, Stuart & Swan, 2000; Rekie, 1997), and participative school-based programmes (Kuhn, Steinberg & Matthews, 1994) or HIV education accompanied by life skills training is presented by teachers or non-governmental organisations (Mactyre, Alons, Brown, Magnani & Kaufman, 2000; Reddy, James & McCauley, 2003; Visser, Schoeman & Perold, 2004). Research aimed at investigating the effectiveness of these programmes in changing high-risk behaviour is scarce (Harrison, Smit & Myer, 2000; Kirby et al., 2006). In available evaluations performed in developing countries, it was found that education and behaviour change programmes contributed to awareness and knowledge of HIV but had weak to moderate effects on sexual risk behaviour of adolescent populations (Aaro, Flisher, Kaaya, Fuglesang, Klepp & Schaalma, 2006; Gallant & Maticka-Tyndale, 2004; Harrison et al., 2000; Harvey et al., 2000; Kirby et al., 2006; Kuhn, Steinberg & Mathews, 1994; Logan et al., 2002; Mukoma, 2001; Oakes, Fullerton & Holland, 1995; Speizer, Magnani & Colvin, 2003). From a meta-analysis of 22 school-based sex and HIV education interventions in developing countries, Kirby et al. (2006) concluded that the majority of the programmes had some effect on reported risky sexual behaviour. They also identified characteristics of effective preventive interventions, such as participation of all stakeholders, focus on specific behaviour, creation of a safe environment, and fitting into community values and resources. Programmes should be specifically designed to match the culture, age and sexual experience of participants and should address the underlying reasons for high-risk behaviour (Auerbach, Hayes & Kandathil, 2006; Kirby et al., 2006; Logan et al., 2002). Research results indicate that programmes that take into account the social and contextual factors related to HIV risk behaviour of the target population are more successful than programmes that do not (Campbell & Foulis, 2002; Logan et al., 2002; MacPhail & Campbell, 1999). Few interventions have, however, addressed these issues.

HIV risk behaviour among South African school-going young people is often influenced by interpersonal processes such as peer group norms, perceived gender roles resulting in coercive male-dominated sexual relationships, lack of communication skills to negotiate condom use, their understanding of love, sex and relationships and a lack of positive adult role models. On a broader level, a lack of recreational facilities and social norms such as intergenerational silence about sexual behaviour, the status of women and socio-economic environment also play a role (Campbell & MacPhail, 2002; Eaton et al., 2003; Harrison et al., 2000; Monasch & Mahy, 2006; Visser et al., 2004; Wood, Mafokate & Jewkes, 1998). Adolescents communicated their needs as wanting more information, including help with decision-making and coping skills, and the opportunity for individual counselling with someone they trust (Balie & Steinberg, 1995). A clear understanding of the situation of young people, their needs and the issues influencing and maintaining high-risk behaviour is required to...
design and successfully implement interventions aimed at stemming the tide of infections among young people. Following a review of existing programmes, Mukoma (2001) concluded that there is a need for innovative programmes in South African schools to promote and maintain safer sexual behaviour, as well as care and support for those living with HIV/AIDS.

Peer education has been widely advocated as alternative or complementary to interventions presented by adults (UNAIDS, 1999) and is becoming an increasingly popular method for promoting behavioural change in HIV prevention programmes (Campbell & Foulis, 2002; Finger, Lapetina & Pribila, 2002; Harrison et al., 2000; Horizons, 1999; Mantell, Harrison, Hoffman, Smit, Stein & Exner, 2006; Sikkema, Kelly, Winett, Solomon, Cargill & Roffman, 2000). In accordance with the Declaration of Commitment (UNAIDS, 2001) to ensure that at least 95% of young men and women aged 15 to 24 years have access to the information, education (including peer education and youth-specific HIV education) and services necessary to develop the life skills required to reduce their vulnerability to HIV infection by 2010, peer education and support programmes have been implemented in South African schools over the past number of years. Although much effort is put into the implementation of these programmes (Department of Health, 2002), the impact of peer education and support has not been evaluated in South African schools to date. His paper reports on the implementation and evaluation of a peer education and support programme as HIV preventive strategy in selected secondary schools in Tshwane.

**Peer education and support**

Peer education and support involves the training and use of individuals from the target group to educate and support their peers. Peer-led interventions are based on the assumption that behaviour is socially influenced and that behavioural norms are developed through interaction (Campbell & MacPhail, 2002; Sikkema et al., 2000). They are also derived from the extensive literature on the value of social support and non-professional help in promoting mental health (Dalton, Elias & Wandersman, 2001; Hobfall & Vaux, 1993; Humphreys, Finney & Moo, 1994; R hodes, Ebert & Fischer, 1992; Shumaker & Brownell, 1984). By using peers as resources, information, skills and caring can be extended in an exponential way and the social climate can be enhanced.

Peer education and support can be especially effective among adolescents because friends are their main sources of information about sexual practices and peer influence often motivates their behaviour (Dube & Wilson, 1999; Kaya & Mabetoa, 1997; Mukoma, 2001). The advantages of peer education and support can be summarised as follows:

- Adolescents are more likely to discuss openly sexual practices with their peers than with adults whom they regard as authority figures (Kinsman, Nakiyingi, Kamali, Carpenter, Quigley, Pool & Whitworth, 2001; Visser et al., 2004).
- Knowledge and experiences can be shared in a language understandable and accessible to young people.
- Adolescents identify with and can be positive role models for one another. They are also more likely to change their behaviour if they observe liked and trusted peers changing their behaviour.
- Group discussions and debate can contribute to the development of new collective norms of behaviour and relationships (Campbell & McPhail, 2002).
- Young people are recognised as partners in solving problems. Increased youth participation in decision making contributes to their taking ownership of their own health and taking the initiative to address some of the problems they experience. This contributes to higher levels of empowerment (Aggleton & Campbell, 2000; Finger et al., 2002; Riesman, 1990).
- Peer education and support can improve relationships and the climate in a school (Campbell & McPhail, 2002; Dube & Wilson, 1999; Finger et al., 2002; Horizons, 1999; Latham, 1997; Kaya & Mabetoa, 1997; Makena Scoloveno, R uales & Scoloveno, 2006; Speizer, H eller & Brieger, 2000; Tanaka & Reid, 1997).

HIV/AIDS-related peer education in school contexts often aims at postponing sexual involvement and promoting condom use. This is done through sharing information about HIV, providing role models that promote healthy behaviour, demonstrating negotiation skills and providing individual support (Campbell & Foulis, 2002; Howard & Mccabe, 1990; Williams, MacPhail, Campbell, Talaard, Gouws, M oema, M zaiduene & Raseko, 2000). The effectiveness of peer education and support in an HIV context was illustrated in a variety of studies and proved to contribute to higher levels of knowledge, changed
attitudes and self-efficacy (Borgia, Marinacci, Schifano & Perucci, 2005; Cartagena, Veugelers, Kipp, Khishgee & Laing, 2006; UNICEF Ghana, 2002), as well as changed sexual behaviour patterns (Agha & Van Rossem, 2004; Cartagena et al., 2006; Kempe, 2003). The latter included behaviour patterns regarding condom use (Caron, Godin, Otis & Lambert, 2004; Smith, Dane, Archer, Devereaux & Kirby, 2000), delay of sexual activity based on changed sexual norms (Mellanby, Reese & Tripp, 2000), and young people influencing their friends to avoid unprotected sex (Smith et al., 2000).

Despite the advantages of peer education, Borgia et al. (2005) found no significant differences in the impact of teacher-led and peer-led AIDS prevention programmes. In comparing the two approaches, they emphasised that adolescents as peer educators required considerable training because they have less knowledge and skills pertaining to these topics. Adolescents also need much supervision to cope with the emotional demands of the interaction with their peers (Latham, 1997; UNICEF Ghana, 2002). The high turnover of adolescents furthermore requires ongoing recruitment, training and supervision (Borgia et al., 2005; Kirby et al., 2006). All of these aspects raise doubts about the sustainability and cost effectiveness of using peer educators in HIV prevention. Both the advantages and possible pitfalls of peer education would have to be considered when implementing a school-based peer education and support programme. In this paper the implementation and evaluation of a peer education and support programme as an HIV prevention strategy in secondary schools in an urban community in Tshwane, is described.

**Methodology**

The aim of the programme was to empower a group of adolescents to provide health-related information, demonstrate communication skills and facilitate discussions on high-risk sexual behaviour among their peers with the aim of influencing peer group norms. The programme aimed at delaying the onset of sexual activity and promoting condom use among sexually active learners in these schools. Although the peer education programme was not curriculum-based, it included many of the characteristics of successful HIV prevention programmes identified by Kirby et al. (2006). Care was taken to address the needs and underlying reasons for high-risk behaviour identified among this group of learners (Visser et al., 2004) so as to promote specific behaviour and acknowledge community values. The intention was to promote participation by all stakeholders and to create a programme embedded in the school structure.

**Implementation**

The programme was implemented as a collaborative effort between the Department of Psychology at the University of Pretoria and the Gauteng Department of Education. This was done through a process of action research (McNiff, 1988; Walker, 1997) that allows for the programme’s continuous evaluation and adjustments in its implementation. The systems theory (Capra, 1997; Hanson, 1995) was used as theoretical framework in the planning of the intervention and interpretation of the feedback obtained through the evaluation processes. A brief discussion of various processes in the implementation of the programme follows below.

**Collaboration**

A discussion of the obstacles to HIV prevention in schools led to the idea to involve learners in HIV education. Teachers responsible for HIV education in schools were consulted and were eager to participate. The implementation of the intervention was planned as a collaborative effort between various role players in the Department of Education, the University and the respective school communities (Figure 1). Participation of the school community was important to make sure that activities were directed at the needs of the learners and to give them a significant sense of ownership of the intervention. The intervention was discussed at a meeting of school principals of whom thirteen were willing to participate in the project and volunteered participation of their schools. One school was from a previously white residential area, two from a traditionally coloured area, two from a predominantly Indian area and eight schools from a mainly black residential area.

Two teachers in each of the 13 schools were then invited to a workshop where the goals of the project, as well as the roles of the peer educators and the teachers, were developed. All the teachers in these schools were informed about the project and their input was solicited in the development of the
intervention. Postgraduate Psychology students at the University of Pretoria were trained and supervised to facilitate training of the peer educators and to assist in the running of the programme in schools. A management committee consisting of one peer supporter and teacher from each school was formed to meet with the co-ordinators from the Department of Education and the University once a month. Their task was to discuss progress with the implementation of the programme in their schools.

**Role of the peer educator**

In negotiations with role players it was decided that peer educators should facilitate healthy behaviour among their peers in the following ways:

- Raising awareness and knowledge of HIV by presenting participative activities in schools
- Mobilising learners’ involvement and participation in the promotion of healthy behaviour
- Facilitating change in peer group norms by creating a context to discuss sexual relationships, gender issues and values
- Being available to peers for informal conversation, support and guidance
- Being role models of healthy behaviour

The underlying messages built into the activities were to postpone sexual involvement, to use condoms if sexually active, and to promote respectful relationships and communication about sex and HIV. Another message was that sex was not the only way to show love and caring. Peer educators intended to make healthier behaviour choices more acceptable and fashionable.

**Selection of peer educators**

In each participating school 15 to 20 peer educators were selected to represent learners in each grade group. Additional peer educators would be selected each consecutive year of the project. Learners were asked to nominate members in their grade group whom they thought would be good peer educators, in other words learners with good interpersonal skills who could have a positive influence on their peers. Teachers interviewed the nominated students and
selected three to four per grade group using the following criteria:
- Good interpersonal skills
- Confidence to work with peers
- High level of responsibility
- Willing and motivated to participate
- Able to deal effectively with own problems

Training of peer educators
Peer educators were trained during a holiday workshop that involved 24 hours of training facilitated by the postgraduate students. The peer educators of each school were trained together in a small group. During the training, efforts were made to enhance group cohesion and personal growth. The training concentrated on the following:
- Goals of the project and role of peer educators
- HIV/AIDS knowledge and attitudes, especially HIV transmission, risk behaviour, testing and preventive behaviour
- Understanding the peer context and experiences
- Gender relationships, negotiation skills, and sexual rights of young people
- Basic counselling and facilitation skills
- How to enhance healthy behaviour
- Organisational skills to organise group activities aimed at promoting healthy lifestyles

After the holiday workshop the training continued in the form of ten one-hour weekly sessions at the schools facilitated by the students. In these sessions peer educators were able to voice their opinion and discuss the challenges they faced in running the programme. The aim of the sessions was to develop communication skills, provide resources and motivation, and to encourage the peer educators to overcome the obstacles they encountered.

Implementation of peer education and support in schools
Peer educators in each school could give their own meaning to their roles and decide how they would like to implement the programme to encourage their ownership of the programme. The responsible teacher in each school assisted the peer educators in planning activities and helped them to communicate their initiatives to the school management. Some financial support was provided by the Department of Education to run the programme in these schools. The peer educators initiated the following activities:
- In all of the schools peer educators organised HIV awareness activities. In six schools they performed plays with health messages; in nine schools they invited guest speakers; in four schools they organised HIV and drug awareness days including drama, song, dance and food; in one school they painted a graffiti wall; and in two schools they made posters and distributed HIV facts through newsletters.
- In seven of the schools they visited classes to facilitate peer discussions about high-risk behaviour, interaction between genders, the meaning of relationships, sex and values, and the dangers of substance use.
- In six schools a peer education office was established where learners could reach them for individual discussion. The peer educators supported learners who experienced problems and, where possible, referred them to appropriate helping facilities.

Evaluation of the programme
Programme evaluation involves the systematic collection of information about the activities, characteristics and outcome of programmes to assess their effectiveness and inform discussions about future programming (Patton, 1997). While outcome evaluation focuses on the impact of an intervention, process evaluation focuses on the "internal dynamics and actual operations of a program in an attempt to understand its strengths and weaknesses" (Patton, 1997, p.206). Both a process and an outcome evaluation were done to determine the impact of the programme on various levels of the school community.

Process evaluation
The process evaluation focused on how the programme was implemented in and integrated into the complex school system, as well as the challenges involved in such implementation. Monitoring occurred in different ways:
- The postgraduate students provided weekly reports of the activities of peer educators and the problems they encountered.
- Focus group discussions were held after three months of implementation and again after a year. On these occasions the peer educators of all the schools (n=170) discussed the activities implemented in their schools, their experiences and achievements, the challenges they encountered, and possible ways of improving the peer support system.

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responsible teachers (n=13) about the activities of the peer educators and challenges in running the programme.

Outcome evaluation
A quasi-experimental design was used to evaluate the impact of the peer education programme. Learners from the 13 participating schools were used as the experimental group and learners from four similar schools from the same area that did not participate in the project constituted a control group. A pre-test was done when the project started and a post-test 18 months later.

Participants
Within each school a stratified sample of one class from each grade group, chosen at random, was approached to complete the assessment. Because of an agreement with the school principals not to disrupt the normal school day too much, a randomly selected class of learners was used instead of randomly selected individual learners. The sample was therefore not completely representative, which limits the generalisability of the findings. In the post-test 18 months later, the same method of selection of learners was used, though the same learners were not in the same classes any more. Learners in the pre- and post-test could therefore not be matched. The experimental group consisted of 1 386 learners in the pre-test and 1 572 in the post-test, while the control group consisted of 532 learners in the pre-test and 596 in the post-test. The two samples therefore constituted two cross-sectional studies of the specific school communities over time. The assumption was that the large group of students involved in the assessment would give an indication of behavioural trends in these schools over time.

Assessment instrument
Peer education and support focusing on healthy behaviour and positive relationships were expected to have a beneficial effect on learners' psychological well-being, feelings of personal control, school climate and high-risk sexual behaviour. The following instruments were used in the assessment.

Psychological well-being: Psychological well-being was assessed by means of 22 selected items of the Bar-O n Emotional Quotient Inventory (EQ-I) (Bar-O n, 2000). The EQ-I is based on research done by Bar-O n (1988), in which factors related to psychological well-being were identified to formulate an operational definition of psychological well-being. Using the data of 2 000 subjects from seven countries, Bar-O n (2000) reported a Cronbach alpha internal consistency coefficient of 0.76 for the scale as a whole. High correlations were obtained with various measures of personality and estimates of effective coping with the pressures and demands of daily life (Bar-O n, 2000).

In this research, 22 items from the self-regard, interpersonal relationships and happiness sub-scales of the EQ-I were selected as a brief indicator of feelings of psychological well-being. These items were chosen to reflect aspects of intrapersonal, interpersonal and general mood components of psychological well-being (Bar-O n, 2000). Responses were coded on a 3-point Likert-type scale, namely “agree”, “in between” and “disagree”. In a factor analysis using the data of 1 918 respondents in the pre-test of this study (both experimental and control groups), one general factor was extracted. Factor loadings varied between 0.27 and 0.59. A Cronbach alpha of 0.794 was obtained as index of reliability of the scale, which implied an acceptable internal consistency among the items on the scale for this sample (Kerlinger & Lee, 2000). The scale was calculated such that a high score indicated a high level of psychological well-being.

Personal control/Peer influence: Personal control was assessed by means of 5 items focusing on whether the learner could make his/her own decisions or was influenced by peers regarding risk behaviour such as substance use and sexual behaviour (e.g. “I decide for myself what is right and wrong even if my friends do not agree with me”). The questions were answered on a 3-point scale (agree, in between, disagree). A low score on the scale suggests strong personal control while a high score means that the learner is easily influenced by others.

School climate: School environment plays an enormous role in promoting or inhibiting behaviour (Campbell & Foulis, 2002; Logan et al., 2002). When learners feel that people in the school care about them, they would be more likely to accept messages received at school. School climate was assessed using 22 selected items from Trickett and M oos’ (1973) school climate scale, the validity of which was confirmed in various studies (M oos & Trickett, 1987; Ozer, Weinstein, M aslach & Siegel, 1997). Trickett (1978) found reliability coefficients between 0.67 and 0.86 for the...
various sub-scales. In this research, items focusing on the experience of the learning atmosphere (12 items), teacher support (5 items) and learner support (5 items) were used. The questions were answered on a 5-point scale ranging from “strongly agree” (1) to “strongly disagree” (5). Questions were scored in such a way that a low score indicated a positive school climate; while a high score suggested a more negative experience of the school climate. Using the pre-test data of 1,863 learners (excluding the 55 questionnaires with some missing values), a Cronbach reliability coefficient of 0.84 was obtained for the school climate scale as a whole.

Reported high-risk sexual behaviour: High-risk sexual behaviour was assessed by asking learners to report on the following high-risk indicators:
- Whether they were sexually experienced.
- Whether they had had sexual intercourse during the past three months (This would indicate if the intervention had an impact on the behaviour of learners who were already sexually experienced.)
- Whether they had had multiple sexual partners during the past three months.
- Whether they used condoms every time that they had sex during the past three months.
- Whether they had sex without their consent. (According to Wood et al. (1998) sexual coercion seems to be a serious problem for adolescent girls.)
- Whether they perceived most of their peers to be sexually experienced. (This is an indication of the perceived peer group norm.)
- Whether they perceived their peers to be using condoms. (This is an indication of the perceived group norm regarding condom use.)

Questions were answered using either “Yes”, “No” or “Don’t know”.

Reported substance use behaviour: Because of the relationship found between substance use and HIV-risk behaviour (Kalichman, Simbayi, Kagee et al., 2006; Morojele, Brook & Kachienga, 2006; Zablotska, Gray, Serwadda et al., 2006), substance abuse patterns were assessed using self-reported behaviour. The following indicators, based on the guidelines put forward by the Center for Substance Abuse and Mental Health Services (Kumpfer, Shur, Ros, Bunnell, Librett & Millward, 1993) were used:
- Whether they drank alcohol in the past 30 days - more than just a sip? (Current alcohol use)
- Whether they drank five or more drinks with alcohol on one day during the past 30 days (Excessive alcohol use or binge drinking).
- Whether they used drugs such as dagga (zol), cocaine, crack, mandrax (white pipe), LSD during the past 30 days (illicit drugs use).
- Whether they perceived most of their peers to drink alcohol (perceived peer group norm).

Questions were answered as either “Yes”, “Sometimes” or “No” and provide data on the nominal level of analysis.

In the interpretation of the data it should be kept in mind that many different factors could influence the accuracy of self-reported intimate behaviour (Catania, Gibson, Chitwood & Coats, 1990; Miller, Turner & Moses, 1991). In spite of various techniques to minimise circumstances that might impair the reliability of the responses, such as promises of anonymity and confidentiality, there is always a possibility of over- or under-reporting (Tarter, 2002). Even so, findings indicate that in general the reliability of these self-reports is high, with only a small tendency toward over- and under-reporting. Self-report questionnaires are particularly useful in enhancing honest reporting of risk behaviours without revealing confidential information to a teacher or research assistant in an interview situation (Turner, Lessler & Gfoerer, 1992).

Awareness of peer support system and use thereof: Learners had to indicate whether they were aware of the peer education and support programme in their school and whether they participated in discussions with a peer educator.

Opinion of peer education programme: An open question was used to understand the learners' opinion of the functioning of the peer education and support programme in their school.

Data collection procedure Permission to conduct the evaluation study was obtained from the Education Department and the principals and guidance teachers of the respective schools. Since almost all the participants were 18 years and younger, their parents were informed about the research at a parents' meeting. They were given the option to withdraw their children from the study.
Arrangements were made with the various principals to collect data at the respective schools during a specific week. The guidance teachers randomly selected one class from each grade group and arranged for those learners to complete the questionnaire during their guidance period. In the guidance class a research assistant briefly explained the purpose of the research and asked the learners whether they would be willing to participate on a voluntary basis. If they were not willing, they were given the option to leave the room or not to complete the questionnaire. There were very few uncompleted questionnaires. The questionnaire was given in English since the majority of the participants were fluent in English. A research assistant was present to deal with questions and to translate words the participants did not understand. Questionnaires were completed anonymously and any information that could link the adolescents to their responses was kept confidential. Completed questionnaires were placed in a sealed box to be opened at another venue by the researchers.

Data analysis
The qualitative data on the implementation of the programme, which was obtained from the various sources, was analysed to identify recurring themes that would indicate the strengths and challenges of the programme (Miles & Huberman, 1994). Scale scores were calculated for the psychological well-being, personal control and school climate scales. Pre- and post-test scores were compared between the experimental and control groups using a Kruskal-Wallis one-way analysis of variance test. This type of analysis was used because scores on the scales did not reflect a normal distribution. The data related to high-risk sexual and substance use behaviour was compared using chi-squared calculations (N euman, 1997). Because of the large sample size, normal statistics may show significant differences while the effect of the difference in the mean scores is in fact very small. By calculating the effect size in the form of the contingency value, this can be corrected (C ohen, 1988). A contingency value of smaller than 0.1 indicates a small effect, between 0.1 and 0.3 a medium effect, and more than 0.5 a large effect size. The partial eta squared is used as indication of effect size of the ANOVA. Effect size indexes are the following: Less than 0.01 indicates a small size effect, a value of 0.1 indicates a medium size effect, and a value of 0.25 or more indicates a large size effect (C ohen, 1988).

Results of the process evaluation
The themes identified from the facilitators’ reports and from focus group discussions with peer educators and teachers focused mainly on the strengths and challenges of forming relationships on different levels of the school community. In discussing the challenges regarding implementation, it must be kept in mind that the programme is in its second year and that many issues are still being addressed.

Strengths of the programme
The enthusiasm and energy of the peer educators and the good informal relationships they had with their peers were the most important strengths. The activities they organised as part of awareness campaigns and class discussions facilitated acceptance and involvement of learners in discussions about health issues. Peer educators reported a growing involvement in class discussions especially among girls. Another important strength of the programme was the personal growth of the peer educators. They indicated that they developed a greater understanding of themselves and others; that they built new relationships, and felt empowered to make a difference in the lives of other people.

Challenges
Various challenges faced the peer educators’ attempts to build relationships in the schools and implement the programme:
• They had to form a committed working group and negotiate roles for and solve conflicts among themselves.
• At first they were shy to discuss intimate sexual behaviour with their peers.
• Their fellow learners initially made fun of their efforts to build peer relationships. Once the novelty of the programme was over, learners showed greater acceptance and started to participate in activities.
• Sexual matters were not talked about openly in schools and learners were shy to share their opinions. At times the peer educators had to separate the boys and girls to facilitate discussion. When the programme had run for a year, peer educators experienced greater openness in discussions in senior classes.
• Although peer educators could share HIV information with peers, they needed more training and guidelines to deal with the interpersonal relationship problems of their peers. They had to deal with problems such as rape and trauma. They did not...
consider themselves competent to deal with these issues, and needed more support and training as well as a reliable referral system.

- Lack of teacher involvement limited the effectiveness of the programme. In three schools peer educators complained of a lack of teacher support and had to battle to get permission to implement activities. In schools where there was teacher support, they managed to implement their ideas and enjoyed the backing of the school management.

Results of the outcome evaluation

Demographic characteristics of the sample of learners

The sample of 4 086 learners who completed the questionnaire in the pre- and post-assessments displayed the following features:

- Forty-six per cent (46%) were male and 54% female.
- Ages varied between 13 and 20 years with the largest group between 14 and 18 years.
- Grade groups 8 to 11 were well represented, with small numbers of Grade 12s involved.
- The sample of learners was fairly representative of the language groups in the area: 8% spoke English, 8% Afrikaans, 36% Sepedi, 15% Zulu, 13% Setswana, 12% Tsonga and 8% spoke other African languages.

In Table 1 demographic characteristics of the experimental and control groups in the pre- and post-tests are compared. The groups were fairly similar in gender and age, but differed with regard to home language. The control group included no Afrikaans learners, and a notably larger proportion of Sepedi-speaking learners.

High-risk sexual behaviour patterns

In the pre-test, 41% of the learners in the sample as a whole reported that they were sexually experienced and 28% indicated having sex in the past three months. It was found that sexual experience increased with age (p<0.001). In the age category 12 to 15 years, 23% of learners admitted to sexual activity, compared to 54% of learners 16 years and older. There was a significant association between having had a sexual relationship and gender (p<0.001). Of the males participating in the study, 51% had had a sexual relationship comparing to 33% of the females. Of the sexually experienced

<table>
<thead>
<tr>
<th>TABLE 1. COMPARISON OF DEMOGRAPHIC CHARACTERISTICS BETWEEN GROUPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental pre-test</td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td>Gender Male (n=1386)</td>
</tr>
<tr>
<td>Gender Female (n=1572)</td>
</tr>
<tr>
<td>Age 12-13</td>
</tr>
<tr>
<td>Age 14</td>
</tr>
<tr>
<td>Age 15</td>
</tr>
<tr>
<td>Age 16</td>
</tr>
<tr>
<td>Age 17</td>
</tr>
<tr>
<td>Age 18</td>
</tr>
<tr>
<td>Age 19+</td>
</tr>
<tr>
<td>Grade 8</td>
</tr>
<tr>
<td>Grade 9</td>
</tr>
<tr>
<td>Grade 10</td>
</tr>
<tr>
<td>Grade 11</td>
</tr>
<tr>
<td>Grade 12</td>
</tr>
<tr>
<td>Language English</td>
</tr>
<tr>
<td>Language Afrikaans</td>
</tr>
<tr>
<td>Language Sepedi</td>
</tr>
<tr>
<td>Language Zulu</td>
</tr>
<tr>
<td>Language Setswana</td>
</tr>
<tr>
<td>Language Tsonga</td>
</tr>
<tr>
<td>Language Other African languages</td>
</tr>
</tbody>
</table>
learners, 12% had multiple sexual partners and more than half (52%) reported that they had used condoms every time they had sex over the last three months. About 20% of learners perceived most of their peers to be sexually experienced and 50% indicated that they believed their peers were practicing safe sex. An alarming finding was that 17% of the learners indicated that they had had sex against their will.

Substance use patterns
Twenty-six percent of the respondents reported current alcohol use and 14% reported excessive or binge drinking (more than five alcoholic drinks per occasion) during the past 30-day period, while 7.5% reported the use of illicit drugs such as cannabis (dagga), cocaine, crack, mandrax or LSD. The perceived group norm for 24% of learners was that most of their friends drank alcohol. In this sample of learners there was a significant relationship between alcohol use in the past 30 days and sexual activity in the past three months (chi² = 45.37, p < 0.001; n=1185): 42% of learners who were current users of alcohol were also sexually active in the past three months, compared to 28% in the sample as a whole. The same relationship was found between excessive drinking and sexual activity in the past 30 days (chi² = 36.17, p < 0.001, n=1192). Both these relationships were of a medium effect size.

Differences between pre- and post-assessment
The analysis of the results of the pre- and post-assessments of the experimental and control groups revealed the following differences in the scale scores, for which a Kruskal-Wallis one-way analysis of variance was used (Table 2).

Since differences were found between the pre-test scores of the experimental and control groups, the groups could not be considered equivalent. Changes in the post-test scores could consequently not be considered as due to the intervention. Although condom use increased in both groups, this increase was not statistically significant (p<0.01). Although condom use increases in both groups, this increase was not statistically significant. In the experimental group, learners in the age group 13 to 15 years reported more condom use in the post-test than before (p<0.01), though the same was not found in the control group. An alarming finding that emerged from the post-test was that sex without consent had actually increased in the experimental group (p<0.05; c<0.1).

The learners’ perception of their friends’ sexual activities gives an indication of the perceived group norm. While the latter remained unchanged in the experimental group, more learners in the control group perceived most of their friends to be sexually experienced in the post-test than in the pre-test (p<0.01; 0.1<c<0.3 medium size effect). There was no difference in the perceived level of safe sex practiced by friends in both groups over time. Reported current alcohol use, as well as excessive alcohol use, increased significantly with a small effect size in both groups (p<0.05 and p<0.01 respectively). In the control group
drug abuse increased (p<0.01), as did the perception that most of their friends used alcohol (p<0.01), while there was no change in the experimental group’s responses.

Because the same intervention strategies were not implemented in all of the schools in the experimental group, an analysis was done to compare outcomes per school. There was no definite pattern to show that some schools benefited on all variables while others did not. In four of the experimental schools the number of learners who reported to have had sex over the previous three months decreased significantly (p<0.05), while in the other experimental schools there were no changes. In the post-test two schools from the control group had significantly more learners who admitted to sexual activity over the past three months. In two schools in the experimental group learners perceived fewer of their friends as sexually active and in one school more condom use was reported (52% in pre-test vs 65.8% in post-test, p<0.05). There were two schools where change was observed in sexual behaviour as well as alcohol use. Fewer learners reported current sexual activity in the post-test (36.8% vs 21.8%, p<0.05 and 58.8% vs 39.0%, p<0.01) as well as current alcohol use (34.7% vs 15.4%, p<0.01 and 23.9% vs 12.3%, p<0.01), while the overall tendency was increased alcohol use. In these two schools peer educators were active in presenting HIV and substance abuse awareness class discussions.

**Learners’ opinion of the peer education system**

In the current sample 67% of learners reported that they knew about the peer educators in their school. This percentage varied between 24% and 79%, depending on the visibility of the peer educators and climate in each school. On average 24% of learners reported that they had conversations with peer educators. This varied from 12% in schools with Indian learners (where it was a norm not to talk about intimate matters) to 27% in schools where communication was more open. Learners’ opinions about the peer support system were analysed in terms of positive and negative responses:

- 78% were positive - the peer support programme gave good support, was helpful and well-organised in their school.
- 22% were negative - nothing in their school had changed; the programme was not promoted well, or the teachers did not support it effectively.

**Discussion**

The aim of the programme was to implement peer education and support in secondary schools so as to prevent and reduce high-risk sexual behaviour and change peer group sexual norms. The ultimate aim was to prevent HIV infection among adolescents. The programme was run in 13 schools and attempted to involve all stakeholders, address underlying social and contextual issues, and change specific high-risk behaviour. Because it was important to enhance ownership of the programme (Campbell & Fouliś, 2002), a curriculum was not prescribed, but clear guidelines were given to teachers and peer educators about what messages were important and how to convey these messages to their peers. From the process evaluation it can be concluded that the peer educators succeeded in involving their peers in health-related activities, despite various obstacles in implementing the programme. For example, 67% of the learners indicated that they were aware of the peer education programme in their schools and 24% indicated that they had
conversations with a peer educator. In one school only 24% learners knew about the programme. In three schools, peer educators reported lack of support and difficulty to implement the programme. This implies that the programme was neither implemented optimally nor in exactly the same way in all schools.

In the pre-assessment, the level of high-risk behaviour among adolescents was determined. Forty one percent of a group of 1 918 adolescents were found to be sexually experienced. Of this group, 12% reported multiple sexual partners and more than half of the learners reported regular condom use. Coercive sex was reported by 17% of the learners. These statistics reflect a high level of risk of HIV infection and correlate with results of previous research in other parts of South Africa (Eaton et al., 2003). The relationship found between alcohol use and sexual activity (Kalichman et al., 2006; Morojele et al., 2006) was confirmed. High levels of alcohol use (26%) thus

### TABLE 3. DIFFERENCES IN REPORTED HIGH-RISK SEXUAL BEHAVIOUR PATTERNS

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experimental pre-test (n=1386) %</th>
<th>Experimental post-test (n=1572) %</th>
<th>Chi square</th>
<th>P-value</th>
<th>Effect size</th>
<th>Control pre-test (n=532) %</th>
<th>Control post-test (n=532) %</th>
<th>Chi square</th>
<th>P-value</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexually experienced</td>
<td>Yes</td>
<td>41,6</td>
<td>41,6</td>
<td>1,7</td>
<td></td>
<td>38,5</td>
<td>46,2</td>
<td>7,0*#</td>
<td>p&lt;0,05</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>58,4</td>
<td>58,4</td>
<td></td>
<td></td>
<td>61,5</td>
<td>53,8</td>
<td></td>
<td>c=0,08</td>
<td></td>
</tr>
<tr>
<td>Had sex during the past three months</td>
<td>Yes</td>
<td>31,9</td>
<td>36,9</td>
<td>5,4</td>
<td>p&lt;0,01</td>
<td>20,4</td>
<td>30,8</td>
<td>17,6 *##</td>
<td>p&lt;0,001</td>
<td>c=0,14</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>68,1</td>
<td>63,1</td>
<td></td>
<td>c=0,07</td>
<td>79,6</td>
<td>69,2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple partners during past three months</td>
<td>Yes</td>
<td>10,4</td>
<td>15,6</td>
<td>9,2 *#</td>
<td>p&lt;0,01</td>
<td>14,6</td>
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* Significant difference at 5%
# Small effect size
## Medium effect size
contribute to adolescent’s vulnerability to contracting HIV.

The outcome evaluation suggests that peer education may have a preventive impact on high-risk sexual behaviour among adolescents. Whereas the reported level of sexual experience and sexual activity during the past three months remained similar in the experimental group over time, this figure increased for learners from the control group. The perception of peer group norms has an important impact on the behaviour of young people through a process of social comparison (Levine, 1998; Sheeran, Abraham & Orbell, 1999). More learners in the control group perceived most of their friends to be sexually active and using alcohol in the post-test than in the pre-test. This suggests that high risk behaviour such as being sexually active could have been more acceptable as part of the perceived group norms of the control group in the post-test. There was not significant change in the experimental group with regard to perceived group norms. Unexpected changes found in the experimental group during the post-test were higher levels of multiple sexual partners and increased reporting of sex without consent, both having a medium effect in this sample. These results could possibly be related to greater awareness of risk behaviour. In the pre-test both of these behaviours were reported lower than in the control group.

Sheeran et al. (1999) found in a meta-analysis that believing that friends used condoms had a strong correlation with actual condom use. During the test period of the current study there was no statistically significant difference in the reported condom use of learners, and also no difference in the perceived safe sex behaviour of their peers. This confirms the finding of Sheeran et al. (1999) since no changes occurred in condom use in the group as a whole. The only slight changes were observed in the condom use of younger learners (13 to 15-year-olds) in the experimental group. Alcohol use and excessive alcohol use were increasingly reported in both groups of learners, though more learners in the control group reported illicit drug use in the post-test compared to the pre-test.

There were no changes in the psychological well-being and personal control of learners in both groups during the programme. The evaluation of the school climate made by learners in the control group deteriorated, while that of learners in the experimental schools remained on the same level during the entire programme. Thus the changes that occurred were not in personal variables, but on a social level.

In comparing change across schools there was not an overall pattern of change taking place in some school regarding all variables and not in others. In two schools where the peer education programme was implemented actively, there were changes with regard to sexual behaviour as well as alcohol use, but it cannot be assumed that there was a causal relationship between these variables. However, it is possible to conclude that some positive change took place in selected schools in the experimental group, while such change was not observed in the control group schools.

These results suggest that the peer education and support programme may not have changed behaviour patterns, but possibly contributed to a delayed onset of sexual activity. Learners who were sexually active may not have changed their behaviour, but learners may have been influenced not to become sexually active as seen in the consistent number of sexually active learners, while more learners were sexually active in the control group. The changes observed in this study could have been the result of the particular sample of learners used. The study design had two serious limitations. The first is that learners in the pre- and post-tests could not be matched. One class per grade group was selected to participate and learners were not in the same classes in consecutive years. The implication was that behaviour change over time could not be investigated. The study therefore used two cross-sectional samples of learners at different times to explore behaviour tendencies. The assumption was made that group averages of such a large group of learners would reflect behaviour tendencies in these schools over time. The second and related limitation is that the experimental and control groups were not similar when the research started. In the pre-test, differences were found regarding language grouping (Table 1) as well as sexual behaviour patterns (Tables 2 and 3). The two groups could therefore not be compared statistically. Differences in the pre-test could also not be ruled out statistically through covariance analysis, because the pre- and post-tests of learners could not be matched. Difference scores over time were subsequently used to compare changes between
the groups. These threats to the internal validity of the study seriously limit the conclusions about the impact of the intervention on learners' behaviour. The study can only indicate behaviour tendencies that are possibly related to the implementation of peer education.

Another limitation that should be taken into account when interpreting the data is that the peer education programme was not implemented optimally in all of the schools after the initial 18 months. The peer educators experienced many challenges and any conclusions reached are therefore based on the implementation as it materialised in these schools. Research results were based on self-reported data relating to high-risk intimate behaviour, which may not be an accurate reflection of behaviour. Some over- and underreporting may have influenced the results (Miller et al., 1991). Yet, the fact that learners completed an anonymous questionnaire may have provided more accurate information than a personal interview, where other social processes could well have influenced reported behaviour.

From the qualitative data obtained from the postgraduate students, peer educators and teachers, it was found that the enthusiasm and commitment of peer educators and the informal relationships with their peers constituted the strength of the programme. The peer educators could educate their schoolmates and stimulate discussions about intimate behaviour because they shared contexts, culture, age and experiences with peers that resulted in learners sharing personal experiences. The activities they organised as part of awareness campaigns facilitated communication and involvement, and empowered learners with regard to community issues that impacted on their lives (Aggleton & Campbell, 2000). Peer educators also indicated that they benefited from participating, because they developed skills and an understanding of themselves and others, and felt more empowered to make a difference (Finger et al., 2002; Riessman, 1990).

The qualitative data highlighted some obstacles on various levels in the implementation of peer education programmes. Obstacles were on a personal level for the peer supporter and on an interpersonal level in interaction with their peers. They also experienced obstacles on the school level because teachers and the school management did not always support the running of the programme. Peer educators furthermore needed a network of community agencies to which they could refer learners with serious emotional and behavioural problems. Based on these findings, the following recommendations were made:

- Peer educators should work under close supervision of a supportive adult, as they need continuous training and support to deal with difficult personal and interpersonal situations.
- A curriculum with games and exercises should be provided to peer educators as a resource to engage their peers in health-related topics. This can help them to plan interaction between peers and address specific behaviours. Although these youngsters are good at sharing information, they need more resources to facilitate effective interpersonal relationships.
- Teachers should be more involved in the programme, not in taking the lead, but in supporting learners to implement their ideas. Where teachers were involved, peer supporters could run the programme effectively, compared to schools where the teachers were not supporting the programme.
- Community resources should be made available to peer educators for the referral of learners with serious problems. Without a back-up referral system the peer educators can become overburdened and cannot provide efficient assistance to their peers.
- Peer education is not conducted in a social vacuum but need a healthy school and community environment that is conducive to the healthy behaviour patterns that peer educators try to promote (Campbell & Foulis, 2002). Adults should therefore set an example of healthy behaviour patterns for adolescents to follow. Peer education efforts would also be greatly enhanced if conducted in a context that empowers young people to participate in decisions and policy development regarding the enhancement of their health.
HIV/AIDS prevention through peer education and support in secondary schools in South Africa

Although the peer education programme is an intervention between learners in a school (on a micro-level), it needs support and resources from all levels of the community to be effective and have a positive impact on learners’ behaviour.

Conclusion
The results of this research suggest that peer education and support can be regarded as an appropriate strategy to deal with HIV prevention, especially for young people, since they discuss personal issues, have informal relationships and speak a common language. Peer education can contribute towards changing peer group norms using age and culturally accepted ways. In this way a process of change in peer group norms can start from within the peer group (Capra, 1997). Peer education and support should not be regarded as a magic potion or cure-all; however, it can function effectively amid other interventions and needs resources from various levels of the community to function optimally.

Acknowledgements
The project was funded by the World Health Organisation Global Initiative for the Primary Prevention of Substance Abuse. Great appreciation is due to Prudence Small of the Gauteng Education Department who collaborated in the implementation of the programme and the large group of postgraduate students in 2002 and 2003 who facilitated the peer support training and programme implementation. The important contribution of the peer educators and their teachers who tried to improve the lives of their friends is also acknowledged hereby.

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References
HIV/AIDS prevention through peer education and support in secondary schools in South Africa


A comprehensive programme addressing HIV/AIDS and gender based violence

M S Jansen van Rensburg

ABSTRACT
A survey was administered to 304 respondents participating from three areas near Welkom, South Africa. Face-to-face interviews were conducted with women from randomly selected households to evaluate the impact of a service provision programme targeting women living with HIV/AIDS and gender based violence. Gender based violence (GBV) awareness and knowledge was high. Respondents had high perceived levels of risk. They reported making various behavioural changes to avoid GBV. The respondents were aware of their legal rights pertaining to GBV. HIV/AIDS knowledge levels and attitudes were acceptable. Behavioural changes included condom use, abstinence and being faithful to one partner. Disclosure of HIV was lower than disclosure of GBV. Awareness and knowledge of female condoms were high, yet usage low. Participants reported that they would be able to introduce condoms to a relationship and negotiate usage with relative ease. Perceived levels of GBV and HIV were high, and stigma levels towards the affected women were also relatively high. The awareness and knowledge levels of GBV and HIV of older respondents were lower than younger respondents. The key findings of this study support the notion of using a holistic approach, targeting more than one issue. There is lower stigma levels associated with combined conditions, which might allow easier access to vulnerable groups. Coordination and collaboration of services are however needed to enable this benefit.

Keywords: HIV/AIDS and GBV, holistic, comprehensive programme.

RÉSUMÉ
Une étude a été faite auprès de 304 participantes venant de trois quartiers près de Welkom, en Afrique du Sud. Des chercheurs de terrain, bien formés, ont mené des entretiens en tête-à-tête avec des femmes de foyers sélectionnés au hasard avec le but d’évaluer l’impact du programme de service visant des femmes qui vivent avec le VIH/SIDA et la violence contre les femmes. La prise de conscience et la connaissance de la violence contre les femmes étaient élevées. Les participantes montraient des niveaux élevés du risque perçu. Elles avouent avoir changé leur comportement afin d’éviter la violence contre les femmes, ainsi que dénoncer le malfaiteur. Elles connaissaient leurs droits par rapport à la violence contre les femmes. Les niveaux de connaissance du VIH/SIDA et des attitudes étaient satisfaits. Le changement de comportement inclut entre autres, l’utilisation du préservatif (même si cela n’était pas fait régulièrement), l’abstinence et être fidèle à un seul partenaire. La divulgation de sa séropositivité était plus basse que celle de la violence. La prise de conscience et la connaissance du préservatif féminin était élevé. Cependant, son usage était très bas car il n’est pas facilement disponible. Les participantes ont signalé qu’elles pourraient proposer un préservatif et négocier son usage sans beaucoup de difficulté. Les niveaux perçus de la violence contre les femmes et le VIH étaient élevés. Le niveau de stigmatisation envers des femmes infectées était relativement élevé. Le niveau de conscience et de connaissance de la violence contre les femmes et du SIDA chez les participantes plus âgées était plus bas par rapport à celui de participantes plus jeunes. Tandis que tous les trois quartiers ont montré une évidence de valeur des activités de “LifeLine”, la valeur des interventions à Ondaaalusrus était moins importante. Il y a un besoin de réorganiser des activités prioritaires par le biais de “LifeLine”. Les résultats de cette étude soutiennent la notion de l’utilisation d’une approche holistique visant plus d’un sujet. Le niveau de stigmatisation liée aux conditions complexes est moins élevé. Cela peut permettre l’accès plus facile aux groupes vulnérables. La coordination et la collaboration des services sont toutefois nécessaires afin de permettre la rentabilité. Les résultats des interventions de GBV et de VIH confirment d’autres études. Le manque des documents et davantage d’études sur la rentabilité des interventions holistiques est abordé dans cette description d’une approche qui a pour but d’aborder la violence contre les femmes et le VIH en se servant d’une approche holistique.

Mots clés: VIH/SIDA et GBV, holistique, programme compréhensif.

Madri Jansen van Rensburg is a research psychologist working in the Non-Governmental sector. She has done research in the Southern African Development Community region in HIV and Gender Based Violence. She has a special interest in resilience of communities and individuals. She assists LifeLine Southern Africa in research on traumatic interventions and emotional wellness.

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Journal des Aspects Sociaux du VIH/SIDA
INTRODUCTION
National HIV prevalence in South Africa is estimated at 29.9%. The incidence of HIV in the Free State Province was 12.6% in 2005 (Shisana, Rehle, Simbayi, Parker, Zuma, Bhana, Connolly, Jooste, Pillay, et al., 2005). According to the latest national antenatal survey, nearly 40% of women aged between 25 and 29 years are HIV positive. Women in the early twenties and early thirties show lower rates at around 30% prevalence. Older women and teenagers have prevalence below 20% (Department of Health, 2004).

Women worldwide have a one in five chance of being a victim of rape or attempted rape. Regarding abuse and gender based violence (GBV) the estimate is one in three women (Heise, Ellsberg & Gottemoeller, 1999; UNFPA, 2005; UN Millenium Project, 2005). Statistical estimates of different countries vary between 10% and 69% (Heise et al., 1999). The incidence of gender based violence in South Africa is even higher, with one in every two women having a chance of being raped in their lifetime, and a woman being raped every 26 seconds. One in four women is believed to be an intimate partner every six days (Vetten, 1995; Vetten & Bhana, 2003; www.powa.co.za).

The results of GBV include emotional distress, mental health problems, poor reproductive health, and a high risk for contracting HIV (Heise et al., 1999). There is also a circular relationship between GBV and HIV, in that GBV is often seen as the result of HIV infection, but GBV could also contribute to risk factors associated with HIV infection (Dhai & Noble, 2005; Dunkle, Jewkes, Brown, Gray, Mclntyre & Harlow, 2004; Wingood, Diclemente, Harrington, Lang, Davies, Hook, O h & Hardin, 2006).

Violence against women was widely regarded as a private matter, but is now seen as a violation of human rights. In South Africa, the Domestic Violence Act came into effect in 1999. However, difficulties in enforcing the laws, inadequate legal systems, and a lack of women's awareness of these systems have thus far prevented any significant decrease in incidence (Amnesty International, 2004). Previously, women remained silent and studies showed that many people in South Africa (including the victims) believed that sexual assault victims were to blame (Population Council, 2004). The same “silence” is observed regarding HIV. Especially women find it difficult to disclose their status and access services. For women subjected to GBV and living with HIV the situation could be even worse. This lack of awareness and feelings of shame are exacerbated by the absence of services targeting this specific group of women who are subjected to both conditions.

Although projects are responding to the needs of these women, studies on a holistic approach that targets the specified group are needed (Chege, 2005; Jansen van Rensburg, Serumaga & N kadimeng, 2003; in press). Results from an intervention study in the Limpopo Province of South Africa indicated that such an approach was beneficial in reducing physical and sexual abuse (Kim et al., 2002; Pronyk, Hargreaves, Kim, Morison, Watts, Phetla, Busca, & Porter, 2006).

The LifeLine movement was established in 1963 in Australia, with the first South African LifeLine centre opening in 1968. LifeLine Southern Africa currently works in South Africa, Namibia and Botswana improving emotional wellness through 20 individual centres. LifeLine South Africa also provides services through a National Crisis Helpline, the National AIDS Helpline and the National Gender Wellness Helpline. LifeLine Free State opened in 1971 and provides services to traumatised persons in the Northern Cape and Free State provinces of South Africa. LifeLine Free State now uses a holistic approach in dealing with issues of traumatised and destitute persons. The new approach amongst other issues includes gender based violence and HIV/AIDS, implemented through a community outreach programme. The new strategy operates and targets communities in the Matjhabeng District Municipality in three townships; namely Welkom (Thabong), Odendaalsrus (Kutlwanong) and Virginia (Meloding).

The project is a community programme integrating HIV/AIDS and GBV. The operational strategies included social mobilisation activities, coupled with training and development of local leadership from different community structures, with a view to contextualising GBV and HIV/AIDS within the community itself. While the target groups are direct beneficiaries of the programme, LifeLine endeavours to engage all structures and organisations with a vested interest in the impact area, including churches, schools, women's groups, etc. LifeLine also utilises its strategic
This study was commissioned to investigate the outcomes of the LifeLine project on women in the targeted communities. The study focused on outcomes regarding GBV and HIV/AIDS. The aim of the study was to describe the awareness and use of services, perceptions of accessibility, and value of services related to GBV and HIV/AIDS. Services are generally targeted at women who are living with HIV or alternatively at women exposed to GBV. Services for the group of women who are both living with HIV and subjected to GBV are lacking. LifeLine activities focused on a holistic approach to include this specific group of women who are subjected to both conditions. Thus the study found it important to describe the awareness and perceived availability of support to three groups of women in the community, including: women living with HIV/AIDS; women subjected to GBV; and women living with HIV/AIDS and subjected to GBV.

It was however also important not only to focus on those women who are at present or in the past affected and infected. As the holistic approach of LifeLine includes prevention of these conditions through knowledge and awareness, it followed that the study population would be women in the community, regardless of whether they were presently subjected to GBV or living with HIV/AIDS. The study results would therefore describe the ability of women in the community to recognise the need to search for help and the perceived availability of support. The study used a random household survey targeting women of different ages.

METHODOLOGY

The assessments used a quantitative semi-structured questionnaire, administered in face-to-face individual interviews. The questionnaire contained sections on:
- Background information
- Gender-Based Violence knowledge, awareness and attitudes
- Knowledge, awareness and attitudes of HIV/AIDS
- Availability of support and care
- Relationships and condom use
- The intersection between gender-based violence and HIV.

The questionnaire was based on the Behavioural Surveillance Surveys of Family Health International (Family Health International, 2000). The sections on GBV were adjusted accordingly and the questionnaire was developed in consultation with LifeLine to ensure that the tool covered the projected outcomes of their project. Open-ended questions were included to capture unexpected outcomes to some extent. The measurement of stigma (reported as positive attitudes) used the indicators (external stigma indicators) and tools developed by the POLICY project and the Siyam’kela project (Siyam’kela, 2005).

This stigma measurement was reported using a combined stigma score that was calculated from a combination of items on seven external stigma indicators which included: avoidance, rejection, moral judgement, stigma by association, unwillingness to invest in people living with HIV/AIDS, discrimination, and abuse. It is important to consider the combined score, since displaying stigma in one item indicates that stigma exists. Stigma levels are only low for those individuals who report no stigma on all seven indicators.

A local team of fieldworkers and a supervisor were recruited from the project site and trained on issues relating to survey ethics, interviewing techniques and a review of the questionnaire. The team included women with diverse ages, backgrounds and work experiences. The diversity was necessary to enable cross reference between team members and to allow for cultural and other differences and preferences from the respondents. All members of the team were fully conversant with the local languages.

The assessments were conducted in three areas where LifeLine Free State Oxfam activities were taking place. The areas included Welkom, Ondelaarsrus and Virginia. A total sample size of 304 was calculated, based on the total female population (n=212,753) of the area, a confidence level of 95%, and a confidence interval of 5.5. A stratified sampling method was used to ensure representation of the population sizes of each of the three areas (Welkom 57%, n=172; Virginia 21%, n=65; Ondelaarsrus 22%, n=67).

Random sampling of individual households was used, by selection of every third house in smaller areas and every fifth house in larger areas. A quota sampling
method was used to purposefully select participants for different age groups proportionally at each of the three sites, with a slightly higher focus on recruiting younger participants only women older than 15 years of age were interviewed.

LifeLine communicated with the Departments of Health and Social Development throughout the project and permission from all the relevant stakeholders, including local authorities, was obtained. Results were also shared with the stakeholders by LifeLine Free State.

There was strict adherence to correct ethical procedures. The basic rights of participants were respected and they were treated within the context of their community system. Participation in the study was voluntary, and respondents were allowed to withdraw at any stage or to withhold information. Confidentiality was maintained throughout the study (including handling of questionnaires, data entry and analysis). No names or addresses were noted on the questionnaire or any other document. Fieldworkers did not wear any identifying clothes, logos or badges related to LifeLine, GBV or HIV activities, to limit bias in the study, but also to reduce possible linking of participants to GBV or HIV. Participants were never asked to disclose either abuse or HIV status. Questions on prevalence were only included to estimate the perceived problems in the community and not as measures of actual or estimated prevalence, and were phrased as such in the questionnaire. The decision to use these estimates was made since this study was not a prevalence study and including it would allow for reporting bias. Training of fieldworkers included sessions on research ethics and informed consent.

Verbal informed consent (including information on the study, confidentiality, anonymity, benefits and risks) was obtained from all participants. A referral list was available for referral to relevant services if a need was expressed by any participant.

Various steps were taken to ensure that bias and errors were limited. The development of the tools and methodology were done in collaboration with the stakeholders to ensure relevancy. Comprehensive training was conducted with the fieldworkers, including role-plays of different challenging situations. Piloting of the questionnaire, the sampling strategy and the data gathering process also took place prior to the data collection. Quality control of the completion of questionnaires was done at four different stages including:

- Editing of completed questionnaires by the specific field worker directly after the interview
- Editing of the questionnaire by the supervisor directly after completion by the field worker
- Revision by an independent person prior to data entry
- Revision by data capturer.

**CHARACTERISTICS OF THE RESPONDENTS**

The average age of the respondents was 34.8 years (min: 15; max: 79). Most of the respondents were between 20 and 24 years old. Most of the respondents (39%) completed senior secondary school and another 30% completed up to grade 10. Nearly all the respondents (94%) were either fully or semi-literate (see Table 1). There were no statistically significant differences between the three areas.

<table>
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</tr>
<tr>
<td>Primary school</td>
</tr>
<tr>
<td>Grade 8</td>
</tr>
<tr>
<td>Grade 10</td>
</tr>
<tr>
<td>Grade 11 and 12</td>
</tr>
<tr>
<td>Don’t know</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Literacy level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully literate</td>
</tr>
<tr>
<td>Semi literate</td>
</tr>
<tr>
<td>Illiterate</td>
</tr>
</tbody>
</table>

**RESULTS**

More than half of the randomly selected participants (n=154, 51%) had heard of LifeLine and 27% (n=82)
had participated in activities of LifeLine. The average
time since their involvement was less than six months,
with more than 78% (n=61) being involved less than
six months ago. All respondents (100%) felt that the
involvement with LifeLine activities had an impact on
them gaining new knowledge. LifeLine also had an
influence on behaviour changes as reported by most
respondents (98%).

Gender based violence knowledge and attitudes
GBV awareness levels were high amongst the women
who participated in the research, with 94% (n=285)
reporting having heard of GBV. However, a small
percentage (17%, n=51) reported that they felt being
abused on the basis of gender was acceptable. There
were differences between the research sites for GBV
knowledge (p=0.000) and for accepting GBV
(p=0.001). Respondents from Odendaalsrus had lower
awareness levels. There were no differences between
age groups.

The respondents' knowledge about different types of
abuse was high. The types of abuse that were most
widely known were sexual (63%), physical (60%),
emotional (41%) and verbal abuse (35%).
Economical/financial abuse (either not maintaining a
female partner or exploiting them for financial gain)
was mentioned less frequently (17%). This was
consistent with other studies (Henning & Klesges,
2003; Jewkes, 2000; Jewkes, Levin & Penn-Kekana,

Respondents were asked to indicate how many people
were abused in their community on the basis of their
gender. The scale varied between none (0%), some
(25%), half (50%), most (75%) and all (100%). More
than half of the respondents' perceptions were that
most of the population (more than 75%) were abused.
Only 1% believed that no person was at risk, and 10%
believed everyone was at risk. There were no
differences in perceptions in the three areas or between
different age groups.

Many of the respondents felt that they were at risk of
being abused (65%, n=185). Respondents from Virginia
perceived themselves to be less at risk for GBV than
the other two sites (p=0.029).

The reasons why the respondents felt they might be at
risk is listed in Table 2 and included environmental or
circumstances that were not safe; behaviour or activities
that put them at risk; and characteristics of partners,
including a history of abuse.

Women felt that they were at risk of abuse, but that
they could change some aspects to stop abuse or
prevent future abuse. These changes did not put blame
on the “victim”, but empowered them to react to
violence directed at them. Respondents were asked to
indicate whether they had taken steps to avoid being
abused or to stop being abused. The number of
respondents who had made changes to avoid becoming
victims of abuse or to stop being abused was 122
(43%). There was a difference between research
sites (p=0.014) and between age groups (p=0.040).
Women in Virginia made more changes in their
behaviour (48%, n=30) than in Odendaalsrus (43%, n=23) or Welkom (41%, n=69). Older age
groups reported making fewer changes to avoid abuse,
with fewer respondents above 45 years of age reporting
having made changes (less than 30%, compared to
more than 50% of those younger than 45 years).

Most of the prevention efforts (85%) were related to
changing their own behaviour (in avoiding
circumstances and environments that had a higher risk)
and leaving or reporting abusive partners (see Table 3).
The negative aspect was that, in an attempt to protect
themselves, many women were isolating themselves, as
they reported not going to visit friends, or locking
themselves in their homes.

<table>
<thead>
<tr>
<th>TABLE 2. RISK FACTORS FOR GBV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
</tr>
<tr>
<td>Live alone</td>
</tr>
<tr>
<td>Live with kids / grandparent</td>
</tr>
<tr>
<td>Environment not safe</td>
</tr>
<tr>
<td>Work late or at night</td>
</tr>
<tr>
<td>Walk at night</td>
</tr>
<tr>
<td>Own behaviour puts at risk</td>
</tr>
<tr>
<td>Going to taverns</td>
</tr>
<tr>
<td>Partner/husband abused in past</td>
</tr>
<tr>
<td>Alcohol/drug abuse - abuser</td>
</tr>
<tr>
<td>Abuse high in community</td>
</tr>
<tr>
<td>Incidence of rape high</td>
</tr>
<tr>
<td>Crime levels high in community</td>
</tr>
<tr>
<td>Unemployed</td>
</tr>
</tbody>
</table>
A large percentage of respondents (85%, n=243) were aware that there were legal measures a person could take to stop GBV. Most of the respondents would report the abuse to the police (57%) and to social workers (20%). Fewer respondents reported seeking help from health care workers. This might have been due to a lack of confidence that health care professionals would be interested in the cause of abuse, and not because it was not perceived as a health problem (Jansen van Rensburg & Van Staden, 2005; Jewkes, 2002). A large percentage (87%, n=249) knew about their legal rights. Older respondents were less likely to know the legal rights that protect them from GBV. This age difference was statistically significant (p=0.11).

Most of the respondents felt that women were more at risk of GBV than men (81%, n=229), while 18% (n=52) felt that both sexes were at the same risk level. There were no differences between the three sites, but there were differences between the age groups (p=0.002), with older respondents more frequently reporting that both sexes were at the same risk. Biological and behavioural factors were mostly given as reasons why women were more at risk (see Table 4).

A large percentage (95%, n=272) indicated that they thought it was advisable to disclose abuse. Most respondents would disclose to a family member (including a parent or child) or close friends and neighbours (see Table 5). There were no differences between the three research sites or different age groups.

The most common sources of information about GBV were radio and television (see Table 6). LifeLine was mentioned 16% of the time, which is a good indication of the value attached to LifeLine’s role in knowledge distribution regarding GBV.

HIV knowledge and attitudes

HIV/AIDS knowledge levels were high compared to previous studies and national levels (Shisana et al., 2005). Most respondents had heard of HIV/AIDS (99%, n=302). There was a difference between the three areas (p=0.028). At Virginia and Welkom all the respondents had heard about HIV, while 3% (n=2) did not know about HIV in Odendaalsrus.

A large percentage of the respondents (97%, n=294) knew that one could die of HIV/AIDS. Although most of the respondents knew there was no cure for HIV/AIDS, some still believed there was a cure for HIV/AIDS (16%, n=48). Most of the respondents

### Table 3. Behaviour Changes

<table>
<thead>
<tr>
<th>To avoid GBV</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes in self (protect, not alone, stopped drinking)</td>
<td>104</td>
<td>85</td>
</tr>
<tr>
<td>Leave abusive partner</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Report to police/protection order</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Disclose abuse</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Community/street group</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To avoid HIV</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condom</td>
<td>130</td>
<td>61</td>
</tr>
<tr>
<td>Abstain</td>
<td>42</td>
<td>20</td>
</tr>
<tr>
<td>Faithfulness</td>
<td>31</td>
<td>15</td>
</tr>
<tr>
<td>Tested for HIV</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Care when handling blood</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Trust partner</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Careful</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Trust God</td>
<td>1</td>
<td>0.5</td>
</tr>
</tbody>
</table>

### Table 4. Reasons for Women Being More at Risk

<table>
<thead>
<tr>
<th>#</th>
<th>GBV</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological</td>
<td>105</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>80</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Cultural</td>
<td>69</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Behavioural</td>
<td>104</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Gender imbalances</td>
<td>59</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

### Table 5. Disclosure

<table>
<thead>
<tr>
<th>Source</th>
<th>GBV</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spouse / partner</td>
<td>25</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Parent/s</td>
<td>106</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>Children</td>
<td>30</td>
<td>10.5</td>
<td></td>
</tr>
<tr>
<td>Other family</td>
<td>23</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Close friend</td>
<td>29</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Colleague</td>
<td>1</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Neighbour</td>
<td>27</td>
<td>9.5</td>
<td></td>
</tr>
<tr>
<td>Social worker</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Health care worker</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Counsellor</td>
<td>7</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>No-one</td>
<td>7</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Police</td>
<td>19</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>1</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0.5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>HIV</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spouse / partner</td>
<td>50</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Parent/s</td>
<td>128</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>Children</td>
<td>34</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Other family</td>
<td>28</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Close friend</td>
<td>20</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Colleague</td>
<td>1</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Neighbour</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Social worker</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Health care worker</td>
<td>7</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Counsellor</td>
<td>11</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>No-one</td>
<td>11</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Police</td>
<td>7</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>11</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0.7</td>
<td></td>
</tr>
</tbody>
</table>
A comprehensive programme addressing HIV/AIDS and gender based violence

(93%, n=280) knew that a healthy-looking person could be HIV-positive. There was a difference between the age groups, with more of the older age groups believing that there was a cure for HIV (p=0.013) and believing that a healthy-looking person could not be HIV-positive (p=0.050). This lack of clarity regarding a cure especially in older age groups is consistent with national levels (Shisana et al., 2005).

Many people believed that they could personally get infected with HIV (69%, n=208), compared to 37.7% of women nationally and 46.1% of all respondents in the Free State Province (Shisana et al., 2005). The perceived risk levels for the Free State were the highest of all the provinces in South Africa. Most of the respondents were aware that there were ways to avoid getting infected (95%, n=286). A large percentage of the respondents reported that they had made personal changes to avoid getting HIV/AIDS (70%, n=212). Most of the respondents (47%, n=100) made changes less than 12 months ago, which corresponds to the time since the LifeLine Free State Oxfam project started.

The changes made to behaviour in order to avoid HIV transmission were investigated using an open-ended question, and responses are described in Table 3. Condom use was the most frequently-used method (61%), followed by abstinence (20%) and faithfulness (15%).

Most of the respondents felt that women were more at risk than men for contracting HIV (54%, n=163), while 43% (n=126) felt that both sexes were at the same risk level. Only 3% (n=8) felt that men were at higher risk. There were no differences between the three sites or between age groups. The belief that women were more or equally at risk was mostly contributed to behavioural factors. This was consistent with the reasons listed for women being more at risk of GBV as listed in Table 4. Biological factors were regarded more frequently as a risk factor for GBV than for HIV.

Stigma and discrimination are seen as primary barriers to effective prevention, and provision of treatment, care and support. It was therefore important to consider the levels of stigma in this community. More specifically, it would be useful to compare levels of stigma towards women living with HIV and stigma towards women living with HIV and subjected to GBV. The stigma scale used seven indicators of external stigma. A person demonstrates stigma when they do not reject all seven indicators. The combined HIV stigma levels seemed to be very high, with only 8% having positive attitudes on all seven stigma indicators. A slightly higher percentage (19%) had positive attitudes on six of the seven indicators.
A large percentage (88%, n=266) indicated that they thought it was advisable to tell others of their HIV status. Disclosure of HIV status was significantly lower than disclosure of being abused. Disclosure would mostly be to family members and did not include friends or neighbours, as with disclosure about abuse (see Table 5). There were no differences between the three research sites or different age groups. Disclosure of HIV status differed from disclosure of abuse. Disclosing HIV status would more often be to partners and family members, while those being abused would disclose also to strangers and community members.

The most common sources of HIV information were the mass media (radio and television) and health facilities (see Table 6), consistent with the national survey by Shisana et al. (2005). LifeLine was mentioned by 20% of the respondents. This places LifeLine as a well-recognised source of HIV/AIDS information in the Welkom area.

The majority of respondents (79%) indicated that they knew about their legal rights concerning HIV. There was a statistically significant difference between respondents of different age groups, with women older than 35 years of age being less aware of their rights (p=0.044).

Support and care
Social support and medical and other care were investigated for the same three groups: women who were abused; women who were living with HIV/AIDS; and women who were both abused and living with HIV/AIDS.

Care and support were least available to women who were subjected to GBV (see Figure 1). The same percentage (32%) of women living with HIV and women living with HIV and GBV reported that it was very easy to obtain support. There were no differences between respondents from different areas or age groups.

Support for women who were living with HIV/AIDS and support for women living with HIV/AIDS and abuse were provided mainly by health care institutions (74%). The police and social services were most frequently mentioned as sources of support and care for women subjected to GBV (see Table 7). NGOs, FBOs and private organisations also provided support.

LifeLine was mentioned more than any other NGO or community structure as a source of support for all three categories of women.

Relationships and sexual behaviour
This section reflects the relationships and sexual behaviour of the respondents of the study and is not indicative of behaviour of women living with abuse, HIV or women subjected to both conditions. Most of the respondents (77%) reported having had only one sexual partner in the past 12 months. This is lower than the national levels of 98.2% of women. There was a statistically significant difference between the three research sites (p=0.005). Respondents in Odendaalsrus reported having more partners than the other two sites.

The average time that respondents remained faithful was four years (46.9 months). The time ranged from one month to 45 years. There was a statistically significant difference between the age groups, with older people having stayed faithful to one partner for longer than younger respondents. A large percentage of respondents reported ever having decided to abstain (40%, n=111). There was a difference between the sites, with fewer respondents from Odendaalsrus reporting having abstained (p=0.046). There were also differences between the age groups, with older respondents (older than 60-years old) reporting more often to have abstained (p=0.000). The most common reasons to abstain were to avoid getting a disease, lack of interest and having no partner available.

Respondents reported that it was very easy to stick to a decision to abstain (see Figure 2). There were no differences between respondents from different areas or age groups.
Respondents knew what a female condom was (64%, n=193). There was a statistically significant difference (p=0.000) between age groups regarding knowledge of female condoms. Few respondents older than 55 years knew what a female condom was. Fewer (15%, n=44) reported ever using a female condom. The most important reason for not using a female condom was cited as unavailability.

Most of the respondents knew what a male condom was (92%, n=281). There was an age difference noted regarding knowledge of male condoms, with more respondents older than 60 lacking knowledge (p=0.000). A large percentage of respondents had used a male condom (72%, n=204). There were some age groups who have not used male condoms. This difference was significant at p=0.000. The age groups that did not use male condoms were those younger than 19 years (who reported not engaging in sex) and those older than 55 years of age. The most important reason for not using a male condom was related to the fact that no sexual intercourse was taking place.

Two items measured condom use. Respondents were asked how frequently they used a condom (always, sometimes, never), and whether they had used a condom during the last sexual intercourse. Most of the respondents were not using condoms consistently. Only 32% reported always using a condom. The difference between age groups (p=0.026) was due to the young respondents, who had not engaged in sex yet, reporting never using condoms. A large percentage (52%, n=139) reported having used a condom during the last sexual intercourse, but this measure does not include consistent condom use. The significant differences between age groups (p=0.000) was due to the decrease in condom use in groups older than 40 years of age. The main reason for using condoms was to avoid getting a disease (47%, n=120) and to avoid pregnancy (32%, n=83). The age differences (p=0.000) were due to a higher number of respondents between 30 and 34 years using condoms to avoid pregnancy. The findings regarding condom usage (including the age differences) are consistent with the national survey (Shisana et al., 2005).

Respondents were also asked to indicate how easy it was to introduce condoms into a stable relationship. Respondents found it relatively easy to introduce condoms into a relationship, with 50% (n=135) reporting it was easy. Odendaalsrus was statistically significantly different (p=0.008) in that respondents there mostly found it very easy to introduce condoms. The differences between age groups (p=0.000) were due to more of the respondents older than 35 reporting it was not easy.

The main source of condoms was clinics. The differences between age groups were due to younger respondents also using hospitals and other sources of condoms (p=0.000). Most respondents indicated that it took under 30 minutes to obtain a condom (48%, n=129). A significantly higher number of respondents from Odendaalsrus reported obtaining condoms in less than 15 minutes (p=0.017). Older respondents reported taking longer to obtain condoms than younger respondents (p=0.000).

Participants reported that they normally decided themselves to use condoms during sexual intercourse. More of the respondents older than 40 years of age reported joint decisions with their partner than younger respondents, who more frequently reported making decisions independently (p=0.000).

A few respondents (24%, n=64) reported having sexual intercourse without giving their consent. A condom was used in 37% (n=24) of these cases. It was normally the respondent who decided to introduce the use of condoms (58%, n=14). These findings are important since it indicates that respondents subjected to sexual abuse were able to negotiate condom use to some extent. There were differences between age groups (p=0.000) in that more respondents from the younger age groups reported being involved in sexual intercourse without consent. The differences in ages regarding who negotiated condom use (p=0.002) were due to respondents in the 25 to 39 year age group...
making joint decisions. This was probably also due to negotiation skills.

**Gender based violence and HIV/AIDS**

Respondents were asked if they knew a woman subjected to each of the three conditions. The responses were alarmingly high, with 54% knowing a woman who was abused, 74% knowing a woman living with HIV/AIDS, and 34% knowing a woman subjected to both conditions at the same time. According to Jewkes (2002) and Jewkes, Levin and Penn-Kekana (2002, 2003), more than 45% of women reported being injured by a partner in the previous year, which seems to corroborate the findings of this study. The percentage of women knowing a woman living with HIV seems to be high, taking into consideration high estimates of HIV prevalence (30.9%) for African women between 15 and 49 years in the Free State Province (Shisana et al., 2005), and 23.9% for women between 20 and 64 years (Dorrington, Johnson, Bradshaw & Daniel, 2006). Although these were not measures of prevalence, they give some indication of the openness and acceptance of the different conditions. It could be argued that women would be less inclined to discuss and disclose abuse. However, this is not an acceptable reason for the high percentages, since this study indicated that women would be more inclined to disclose abuse than HIV status.

Stigma scores towards women subjected to GBV and living with HIV/AIDS were calculated in a similar manner as described in the section regarding stigma towards women living with HIV. Combined stigma scores indicated that 33% of respondents had positive attitudes towards women who were both abused and living with HIV/AIDS. This was higher than the 8% that had positive attitudes towards women living with HIV/AIDS.

The attitudes towards women affected by both conditions were more positive than attitudes to women only affected by HIV. This more positive attitude towards women who were affected by GBV and HIV/AIDS indicates that a holistic approach, specifically working with women affected by both conditions, would allow access to women who might not be reached when targeting a specific group. It would be important to measure the changes in GBV and HIV prevention efforts in future studies in this population. Pronyk et al. (2006) found improvements in empowerment and in the status of women and a reduction of physical and sexual abuse three years after the initiation of a holistic intervention.

**CONCLUSIONS**

GBV awareness and knowledge levels were high. Unfortunately, indications were that perceived GBV levels were very high, with more than half of the women in the communities being abused. Respondents also perceived themselves to be at risk, mostly attributed to an unsafe environment and women’s own behaviour. Changes took place to guard against GBV, and these changes were mostly to report violence and to leave the abusive partner.

HIV/AIDS awareness and knowledge were high. Behavioural changes included a huge increase in condom use, abstaining and being faithful to one partner. It is significant that more value was placed on abstinence than on being faithful. The reasons for abstinence were also related to avoiding contracting a disease, rather than lack of a partner or religious or cultural reasons. Women were seen as being more at risk than men, or at similar risk. The reason for the risk was mostly behavioural. Disclosure of HIV status was lower than that of abuse. Disclosure was to a family member rather than friends or neighbours. LifeLine was mentioned as a major source of information and support.

Women were making changes to their behaviour to avoid contracting diseases, such as deciding to abstain from sexual intercourse. Usage of female condoms was low, while usage of male condoms was higher, but condom use (male and female) was inconsistent. Introducing condoms into a relationship was regarded as relatively easy, but not for older age groups. Women mostly reported that they made the decision to use a condom themselves, although younger respondents made more joint decisions. Negotiating condom use was common and regarded as relatively easy.

Nearly a quarter of all respondents had been subjected to sexual abuse (having sex without their consent). Negotiation skills were used to great effect, with more than a third of the women being able to convince the perpetrator to use a condom. This, together with the behavioural changes made to avoid GBV and HIV, indicated that women were empowered to make
decisions and negotiate with others to guarantee those changes. Unfortunately, incidences of women subjected to GBV, women living with HIV/AIDS, and women living with HIV and GBV were very high. Stigma levels were also very high (especially towards women living with HIV/AIDS).

Age differences mostly involved older age groups being less aware and knowledgeable. The older respondents were less aware of GBV, HIV/AIDS and their legal rights regarding both GBV and HIV. Differences between the three areas were mostly related to the lower overall incidence of GBV in Virginia, with more behaviour changes related to avoiding GBV reported in Virginia. Lower awareness and knowledge levels and higher stigma levels for both GBV and HIV were evident in O dendaalsrus.

It can be concluded that knowledge and awareness levels regarding HIV and GBV were high. It is recommended that interventions focus on empowerment of women to enable increased behavioural change and addressing stigma. The younger age groups (especially those younger than 35 years) were very well targeted during the intervention. It would be wise to implement strategies targeting specifically older women. Interventions and strategies combining GBV and HIV issues increased awareness and lowered stigma. This might indicate that a more holistic approach, in which more than one social challenge is addressed, has better outcomes.

An implication of this study is that interventions and studies are needed where conditions are addressed together, without one being seen as causing or contributing to the other condition. Services are limited to each of the groups concerned and resources wasted, as the same service is provided to different target groups. The target groups should be combined, as there is a significant overlap in the beneficiaries. Combining the groups would lower stigma levels towards women living with HIV, which would in turn increase access to the services. This would be achievable through collaboration between organisations such as Lifeline with health care services that are reportedly relied on heavily by women. Coordinated and complementary services would prevent vulnerable women from “falling through the cracks” when referred from one service to the next, as different issues are addressed by different service providers.

The study further promotes that GBV should not just be mainstreamed in existing HIV programmes, or HIV prevention, care and treatment included in existing GBV programmes. There is a need for programmes that focus on general community (and women in particular) empowerment to be multidisciplinary and multisectorial, and to address various issues (such as HIV and GBV in combination with each other and with additional issues such as poverty reduction or other empowerment projects).

This study also advocates with Pronyk and co-workers (2006) that GBV should form part of the national AIDS strategies. This is addressed to some extent in the National Strategic Plan 2007-2011 in Key Priority Area 4 (Human Right and Access to Justice). It, however, does not promote comprehensive (holistic) programmes addressing GBV and HIV in combination. There is also a lack of funding dedicated to drive this process of incorporating aspects of HIV in GBV programmes and vice versa.

This study provides a description of the awareness levels of women regarding GBV and HIV/AIDS. Comparative studies between groups and intervention studies to measure the changes in violence levels or assessing services are recommended for other comprehensive programmes. The findings of the study also provide baseline information for future follow-up studies to measure whether the services for women subjected to GBV and HIV/AIDS have improved.

REFERENCES


ORIGINAL ARTICLE

A comprehensive programme addressing HIV/AIDS and gender based violence


Full text version of SAHARA J available online at www.sahara.org.za
KN Otwombe, P Ndindi, C Ajema, J Wanyungu

ABSTRACT
This paper demonstrates the importance of utilising official statistics from the voluntary counselling and testing centres (VCT) to determine the association between gender and HIV infection rates in Kenya. The study design adopted was a record based survey of data collected from VCT sites in Kenya between the second quarter of 2001 and the second quarter of 2004. Of those who were tested, significantly more females tested positive (P<0.0001) and had twice as high a chance of being infected by HIV (Odds ratio 2.27 with CI 2.23 to 2.31) than males. We conclude that VCT statistics may lead to better planning of services and gender sensitive interventions if utilised well.

Keywords: VCT, HIV, gender.

RÉSUMÉ
Cette communication montre l’importance de l’utilisation des chiffres officiels de centres de consultation et de dépistage volontaires (CDV) lorsqu’on établit un lien entre le genre et le taux d’infection par le VIH au Kenya. Le plan d’étude suivi était celui d’une recherche basée sur des dossiers de données recueillies du CDV au Kenya entre le deuxième trimestre de l’an 2001 et le deuxième trimestre de l’an 2004. Parmi les personnes dépistées, plus de femmes étaient séropositives (P<0,0001) et elles avaient deux fois plus de chance d’être infectées par le VIH (Odds ratio 2.27 avec CI 2.23 à 2.31) que des hommes. En conclusion, nous estimons que les chiffres du CDV peuvent mener à une planification de services et des interventions sensibles au genre s’ils sont utilisés à bien.

Mots clés: CDV, VIH, genre.

INTRODUCTION
HIV has posed a great threat in sub-Saharan Africa from the time it was first diagnosed. Over the years, research has shown that men and women are affected differently. However these effects seem to be more pronounced in third world countries as opposed to richer nations, possibly due to differences in socio-economic status. Using VCT results from Kenya, we attempt to affirm that infection rates vary by gender and hence the need for gender sensitive interventions.

The understanding of the association between gender and HIV requires that we have data. Following the successful VCT data collection exercise in Kenya (Otwombe et al., 2007), we review these results with regard to gender. Health status, disparities and research in gender may be addressed by utilising the outcome of official statistics (Dunnel, Fitzpatrick & Bunting, 1999). Health research data collected over a period of time is important for purposes of future planning.

HIV/AIDS remains a challenge in Kenya, despite the lower numbers of infection reported recently. Results from the Government of Kenya (GoK) Kenya Demographic and Health Survey (2003) indicate that 7% of Kenyan adults are infected with HIV. The
Using VCT statistics from Kenya in understanding the association between gender and HIV

Ministry of Health has continuously developed the 5-year strategic plan (GoK, Kenya National Strategic Plan, 2005/2006, 2009/2010) for AIDS control since 1987, and VCT is recognised as an essential component for prevention and transmission of HIV.

VCT data is intended to be used to understand VCT demand, utilisation and surveillance, and for improving management of VCT services (GoK, 2001). The objective of this paper is to show the association between gender and HIV infection rates gauging its strength, and establishing the trend of VCT uptake in Kenya between the second quarter of 2001 and the second quarter of 2004. We show how this output may enhance planning and delivery of VCT services by gender. Data from this period has been utilised because there was a comprehensive national exercise to update VCT uptake commissioned by the national office at the time, hence its reliability.

METHODOLOGY

Study design
In this exercise, we utilised an evaluative operations research approach that was non-experimental. In our sample, all registered VCT sites were surveyed for missing data at various times (quarters). We adopted a record-based quantitative survey from 332 registered sites.

Data collection
Two teams of four members each were selected and worked simultaneously in different provinces collecting data between 5th September and 15th October 2004. There was a short training session for data collectors before the start of the exercise, with regard to completion of the VCT quarterly reports. Their role entailed collecting missing data from the logbooks in each of the sites. The key variables in this exercise were number of clients presenting for VCT by gender and number testing positive.

Data were collated from September 2001 (shortly after the scale-up of VCT began) up to the second quarter of 2004. For the sites with missing data in the central database (monthly and quarterly) or those with reports that did not disaggregate their data by gender, the teams manually extracted this information from the on-site logbooks and client forms. More information on the challenges encountered in the data collection exercise is encapsulated in Otwombe et al. (2007).

Statistical analysis
MS Excel was used for data entry, data cleaning, descriptive analysis and generation of the graphs showing the trend of client visits to the VCT sites over the period 2001 (second quarter) up to 2004 (second quarter). Odds ratio (Bland & Altman, 2000) and Pearson correlation analysis were performed in SAS 9.1.

RESULTS

414,903 clients visited VCT sites in Kenya between 2001 and mid 2004. Figure 1 and 2 display the trend of the uptake of VCT sites and the numbers testing positive between 2001 and mid 2004 by gender. Figure 1 indicates there were more males than females attending VCT sites. Given this trend, it is likely that the 2004 uptake would surpass the 2003 figures. Table 1 shows more females testing positive (p<0.0001) than males. The odds ratio analysis (odds ratio, 2.27; 95% CI 2.23, 2.31) indicates that females were twice as likely to get infected as males. Whereas this is not new information, these results show that this conclusion can be drawn using VCT statistics from the Kenyan context.

Table 2 presents the VCT uptake before and after the data collection exercise. Pearson correlation analysis on the trends in Figures 1 and 2 were greater than 0.9, indicating that VCT uptake increased over the years by gender and this increase was significant (p<0.05).

Limitations
Statistical analysis of data was limited to the above mentioned methods, since data collection was confined to the following specific variables that were extracted from the quarterly reporting tool: number of males and females attending VCT, and number of males and females testing positive.

DISCUSSION
This paper highlights the importance of analysis of actual VCT data collected at service delivery level, and

<table>
<thead>
<tr>
<th>HIV STATUS</th>
<th>Positive</th>
<th>Negative</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEX</td>
<td>Females</td>
<td>40 190</td>
<td>150 466</td>
</tr>
<tr>
<td></td>
<td>Males</td>
<td>23 611</td>
<td>200 636</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>63 801</td>
<td>351 102</td>
</tr>
</tbody>
</table>

TABLE 1. TOTAL OUTCOME BY GENDER AND STATUS
its utilisation in making policy and programming decisions that are gender sensitive. The findings demonstrate the role of official statistics in understanding the association between gender and HIV.

In Kenya, VCT data reporting tools are disaggregated by gender, which allows for the identification of discrepancies that could readily be explored. Furthermore, gender is about males and females and how they relate to each other for healthy and equitable relationships on a daily basis.

**TABLE 2. ANNUAL VCT AGGREGATE IN NASCOP BEFORE AND AFTER THE DATA COLLECTION EXERCISE**

<table>
<thead>
<tr>
<th>Year</th>
<th>No. tested</th>
<th>No. positive</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
<th>%age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year</td>
<td>Males</td>
<td>Females</td>
<td>Total</td>
<td>Males</td>
<td>Females</td>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001-Before</td>
<td>1393</td>
<td>1397</td>
<td>2790</td>
<td>143</td>
<td>322</td>
<td>465</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After</td>
<td>9694</td>
<td>8457</td>
<td>18151</td>
<td>1475</td>
<td>1922</td>
<td>3397</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>8301</td>
<td>7060</td>
<td>15361</td>
<td>1332</td>
<td>1600</td>
<td>2932</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002-Before</td>
<td>11518</td>
<td>11032</td>
<td>22550</td>
<td>740</td>
<td>1573</td>
<td>2313</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After</td>
<td>38638</td>
<td>33963</td>
<td>72601</td>
<td>4719</td>
<td>7192</td>
<td>11911</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>27120</td>
<td>22931</td>
<td>50051</td>
<td>3979</td>
<td>5619</td>
<td>9598</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003-Before</td>
<td>55024</td>
<td>43177</td>
<td>98201</td>
<td>5245</td>
<td>9306</td>
<td>14551</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After</td>
<td>99281</td>
<td>79253</td>
<td>178534</td>
<td>9840</td>
<td>17095</td>
<td>26935</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>44257</td>
<td>36076</td>
<td>80333</td>
<td>4595</td>
<td>7789</td>
<td>12384</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004-Before</td>
<td>36148</td>
<td>34270</td>
<td>70418</td>
<td>3606</td>
<td>6865</td>
<td>10471</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After</td>
<td>76634</td>
<td>68983</td>
<td>145617</td>
<td>7577</td>
<td>13981</td>
<td>21558</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>40486</td>
<td>34713</td>
<td>75199</td>
<td>3971</td>
<td>7116</td>
<td>11087</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>Before</td>
<td>104 083</td>
<td>89 876</td>
<td>193 959</td>
<td>9 734</td>
<td>18 066</td>
<td>27 800</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>After</td>
<td>224 247</td>
<td>190 656</td>
<td>414 903</td>
<td>23 611</td>
<td>40 190</td>
<td>63 801</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>120 164</td>
<td>100 780</td>
<td>220 944</td>
<td>13 877</td>
<td>22 124</td>
<td>36 001</td>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Before-Refers to VCT data available in NASCOP before the data collection exercise
After-Refers to VCT data retrieved during the exercise
Using VCT statistics from Kenya in understanding the association between gender and HIV

Gender and HIV are interrelated and since VCTs are an entry point to health care services in Kenya, there is a need to mainstream gender into VCT programmes. However, the identification of discrepancies in the VCT uptake by gender is only feasible with up-to-date national official statistics.

REFERENCES

Full text version of SAHARA available online at www.sahara.org.za
HIV and AIDS in Africa


HIV/AIDS in Africa continues to grow unabated, highlighting the need to find effective prevention methods and technologies. The existence of the AIDS epidemic in Africa attests to the growing awareness of a need for a practical implementation of intervention and prevention majors within the African continent, particularly sub-Saharan Africa. Despite several interventions put in place to curb the spread of HIV/AIDS, many people living in Africa continue to lose their lives.

HIV/AIDS in Africa is an edited book by Ezekiel Kalipeni, Susan C raddock, Joseph R. Oppong and Jayati Ghosh. This volume comprises of twenty-four chapters divided into five parts. It covers a broad range of HIV/AIDS issues, including epidemiology, politics, culture, poverty, migration and misperceptions of AIDS in Africa.

Part one focuses on disease epidemics as social processes. It looks at the spread of infections propelled by history, politics, economy and culture. It examines how western epidemiologists and health planners in the development agencies greatly underestimated the potential magnitude of HIV/AIDS in Africa. It gives a critical view on the impact of AIDS in Africa. Authors tackle the discourse of stigma and racism that surrounds AIDS, and the challenged representations surrounding heterosexual transmission of HIV. They argue that elements of raciology, which used to justify slavery and colonial domination, were adapted in depictions of AIDS. The book further looks at how stigma retarded prevention campaigns and suffering endured by sick people and families by fostering social isolation.

Part two provides an overview of AIDS as it has spread through Africa for the twenty years since 1986. With close to 70% of the global total of HIV-positive people, sub-Saharan Africa bears the brunt of the havoc and destruction that HIV/AIDS has left in its trail. The statistical findings show that an estimated 13.7 million Africans have already died from the epidemic, which is quickly erasing the hard-earned gains in life expectancy in some countries. The book looks at the medical and epidemiology arena, the different pattern of AIDS infection exhibited by African countries has resulted in a plethora of research, which resembles earlier narrow-minded colonial efforts to understand the epidemiological patterns of TB and syphilis. This book confronts some viewpoints that have guided recent AIDS research in Africa, focusing particularly on those works that overgeneralise, are ethnocentric and misrepresent Africa through cultural stereotyping. Authors argue that such viewpoints contribute little to understanding the AIDS epidemic in Africa and encourage a premature narrowing of research questions. Authors discuss at great length perceptions and misperceptions of AIDS in Africa, looking at polygamy, patrilineage, the culture of sexual permissiveness and gender stratification, and attempt to show that the sex-positive nature of traditional society which has been grafted onto contemporary urban society accounts for widespread prostitution and AIDS. They argue that patriarchy gives men the incentive to acquire as many wives as possible because of the value of children as economic assets.

Authors also map the AIDS pandemic in Eastern and Southern Africa. The book gives a comparison of HIV rates in Africa. It examines the magnitude and geography of the disease in West Africa by highlighting the puzzling inter-intra country differences, followed by specific case studies from Nigeria, Senegal and Ghana. West Africa is reported to have low HIV rates compared to Eastern and Southern Africa. What the data show is that sub-Saharan Africa is currently thought to have fully two-thirds of the total world number of people living with HIV. Yet within this overall statistic lie significant variations in levels of infection across the continent. Southern Africa continues to be the part of the continent worst affected by HIV.

Part three looks at understanding the issues in terms of gender vulnerabilities. It discusses the strategy for prevention of sexual transmission of HIV/AIDS among adolescents. A study conducted among high school students in Kenya reported that 70% of students had heard about HIV blood testing, 16% had never heard of such a test and 5% were unsure. The study tested whether there was an association between sexual activity and risky behaviours such as using alcohol, smoking cigarettes, taking drugs, frequenting discos and...
The association of people with these behaviours. The results indicated that all these behaviours significantly increased the odds of high school students being sexually active. The study further discussed condom use as one of the chief methods of birth control among sexually active students. The rate of consistent condom use was as low as 21% for girls and 10.7% for boys. Based on the above findings, authors recommended that there was a need to focus on adolescents because they are becoming sexually active at an earlier age. Since adolescence is characterised by experimentation and adventure, this group is at greater risk of contracting HIV/AIDS than other age groups. As sub-Saharan Africa suffers from the HIV/AIDS epidemic, there is a great need to protect all youth from initiating sexual intercourse, which may change the course of the epidemic.

Continuing the focus on gender, this section also looks at the tragic AIDS epidemic revolving around women, sexuality and culture, and issues of migracy, masculine identities and AIDS around men. It examines the psychosocial context of HIV transmission on the South African gold mines. The book illustrates the way in which miners’ identities are shaped and constrained by their living and working conditions. Moreover, authors take a closer look at sex as morality and focuses on the invisible of homosexuality.

Part four focuses on the social embeddedness of HIV in sub-Saharan Africa. It discusses the processes that take place during HIV infection in the human body, and the risks involved in transmitting the virus. The African continent is disproportionately at risk from HIV/AIDS. In Zimbabwe, Kesby stated that overall contraceptive use is relatively high and regular use of condoms is very low. The book also touches on AIDS and ethics clinical trials, pharmaceuticals and the global scientific practice.

The last part of the book explores how HIV/AIDS is a devourer in the family. This section depicts the unimaginable personal tragedies caused by AIDS for many in Africa. The authors look at the impact AIDS has had on the African economy and communities. It is virtually impossible to portray what it must feel like to live in a hard-hit community in Africa today. It looks at a narrative story of Noerine Kaleeba and AIDS in the family, and also presents case studies of the problems posed by AIDS in the lives of two eminent men, Luomo Makiadi a musician and composer, and Sony Labou Tansi, novelist and playwright. Consideration of the lives and works of these two men tell readers about the complex relations of AIDS and activism in public lives.

Overall, this book is essential reading, as it tackles the critical arguments about HIV/AIDS in Africa. The book is interesting and relevant for the African context. It represents a call to all researchers and people working with HIV/AIDS to take account of the complex AIDS epidemic in Africa. This is the first book I have ever read that tackles the misperceptions of AIDS in Africa. As it stands, the collection represents a major contribution to academic research in Africa and globally.

Mercy Banyini, SAHARA Manager, Social Aspects of HIV/AIDS Research Alliance, Human Science Research Council, South Africa.

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NOTICETO AUTHORS

Submission of papers / Soumission d’articles

The Journal publishes contributions in English and French from all fields of social aspects of HIV/AIDS (care, support, behaviour change, behavioural surveillance, counselling, impact, mitigation, stigma, discrimination, prevention, treatment, adherence, culture, faith-based approaches, evidence-based intervention, health communication, structural and environmental intervention, financing, policy, media, etc.). While the emphasis is on empirical research (qualitative and quantitative), the journal also accepts theoretical and methodological papers, and review articles, which should not be longer than 8,000 to 10,000 words, as well as short communications, letters, commentaries and book reviews. Priority is given to articles which are relevant to Africa and the developing world and which address social issues related to HIV and AIDS. Special issues may deal with a specific topic, region or country. Submission of papers presented at the biennial International Conferences of HIV/AIDS and STI in Africa and biannual Social Aspects of HIV/AIDS Research Alliance (SAHARA) conferences are especially invited.

Authors are requested to submit their original manuscript and figures with two copies and a matching disc to the Editor: Prof Karl Peltzer, Social Aspects of HIV/AIDS and Health, Human Sciences Research Council, Private Bag X9182, Cape Town 8000, South Africa. Manuscripts can also be submitted by e-mail. Please create one folder (with the name of the corresponding author) for all word and figure files, and e-mail this to the editor at jsahara@hsrc.ac.za.

Submissions will be considered on the understanding that they comprise original unpublished material and are not under consideration for publication elsewhere (all authors are to sign on submission of the article), and the study(ies) on which they have been based have been subject to appropriate ethical review.

All submissions may be subject to initial assessment by the editor or appropriate Editorial Board members to determine their suitability for consideration by the Journal of Social Aspects of HIV/AIDS. Papers accepted for formal review will be sent anonymously to at least two independent referees.

Short biographic details of not more than 10 lines should be provided at acceptance of the paper for publication.

Manuscript preparation

General: Manuscripts must be typewritten, double-spaced with wide margins, on one side of white paper. Good quality printouts with a font size of 12 are required. The corresponding author should be identified (include a fax number and e-mail address).

The reference style should follow APA guidelines: http://humanities.byu.edu/linguistics/Henrichsen/APA/APA01.html

Abstract and keywords: Supply an abstract (without subheadings) of up to 300 words and up to six keywords.

Text: Follow this order when typing manuscripts:
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- Please ensure that these details are printed on the cover page only, and do not appear on any other separate sheet.
- References
- Appendix
- Figure captions
- Tables and figures. Do not import figures or tables into the main text. Footnotes are to be listed separately at the end of the text and not at the bottom of each page.

References: All publications cited in the text should be presented in a list of references following the text of the manuscript. In the text refer to the author’s name (without initials) and year of publication (e.g. ‘Since Shisana and Simbayi (2002) have shown that...’ or ‘This is in agreement with results obtained later (Uys, 2002)’. For 2 - 6 authors all authors are to be listed at first citation, with ‘&’ separating the last two authors, for more than six authors, use the first two authors followed by ‘et al.’. In subsequent citations for three or more authors use ‘et al.’ in the text. The references should be arranged alphabetically by authors' names. The manuscript should be carefully checked to ensure that the spelling of authors' names and dates are exactly the same in the text as in the reference list. References should be given in the following form:


AVIS AUX AUTEURS

Soumission d’articles

Le journal publie des communications en anglais et en français dans tous les domaines des aspects sociaux du VIH/SIDA (le soin, le changement du comportement, la surveillance comportementale, la consultation, l’impact, la réduction, le stigmate, la discrimination, la prévention, le traitement, l’adhésion, la culture, les approches basées sur la foi, l’intervention évidence-basée, la communication sur la santé, l’intervention structurale et de l’environnement, le financement, la politique, le média, etc.).

Bien qu’il mette l’accent sur la recherche empirique (qualitative et quantitative) le journal accepte des travaux théoriques et méthodologiques, les articles de revues d’une longueur d’entre d’environ 8 000 à 10 000 mots ainsi que des messages courts et des lettres. Nous donnons la priorité aux articles concernant l’Afrique et des pays en voie de développement et qui abordent des questions d’ordre social sur le SIDA. Des éditions spéciales pourraient aborder des sujets, des régions ou des pays particuliers. La soumission de communications déjà présentées à la conférence internationale binassuelle de VIH/SIDA et de MST en Afrique et aux conférences des Aspects Sociaux de l’Alliance de R écherche du VIH/SIDA (SAHARA) binassuelle est la bienvenue.


Le résumé et les mots clés: préparez un résumé (sans sous-titre) d’environ 300 mots et un maximum de six mots clés

Le texte

Veuillez suivre l’ordre suivant lors de la saisie du manuscrit:

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http://humanities.byu.edu/linguistics/H enrichsen/APA/APA01.html

Le résumé et les mots clés: préparez un résumé (sans sous-titre) d’environ 300 mots et un maximum de six mots clés

Les références

Toute référence bibliographique ou source citée dans le texte doit être présentée sur une liste de références à la fin du texte manuscrit. A l’intérieur du texte, citez le nom de famille de l’auteur (sans les initiales) et l’année de publication (par exemple: ‘Comme Shisana et Simbayi (2002) ont démontré que …’ ou ‘Cet argument correspond aux résultats obtenus ultérieurement (Uys, 2002)’. En cas de 2 à 6 auteurs, mentionnez-les tous à la première citation avec ‘&’ entre les deux derniers. Dans le cas de plus de six auteurs, citez les six premiers et utilisez ‘et al.’ à la fin. Pour des citations qui suivent, en cas de trois ou plus d’auteurs, utilisez ‘et al.’ dans le texte. Les références doivent être bien classées dans l’ordre alphabétique des noms des auteurs. Veuillez vérifier si l’orthographe de noms des auteurs et les dates cités dans le texte correspondent à la liste de références. Vous êtes priés de présenter les références de la manière suivante:

