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Combating HIV and AIDS in South African construction through effective communication

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Abstract

It is increasingly being recognized that the only viable means of preventing the spread of new HIV infections is sexual behavior change. Behavior change programs should include information on risk that is communicated often, repetitively and intensively to workers. Effective HIV and AIDS communication involves providing relevant and meaningful information accurately, consistently, reiteratively, and repetitively using multiple methods, mediums, and languages including vernacular, that build on previous HIV and AIDS knowledge while at the same time recognizing the differing personal backgrounds of workers in an environment conducive to open and uninhibited interaction. The authors argue from anecdotal evidence gathered during a series of national multi stakeholder workshops as well as the findings of knowledge, attitude and behavior (KAB) surveys of two samples, namely in South Africa and in Namibia, for greater involvement of construction employers in purposeful structured management led and targeted HIV and AIDS communication programs designed to influence sexual behavior. Considering that television and radio were the most popular and influential mediums of communication, employers are encouraged to support, reinforce and complement HIV and AIDS campaigns and messages via these mediums as part of primary health promotion programs. Further, the authors recommend that employers create opportunities for HIV and AIDS education of workers by their peers.

Keywords: communication, HIV, AIDS, media, behavior change

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Abstrak

Daar word toenemend besef dat die enigste werklike manier om verspreiding van nuwe HIV infeksies te verhoed, is dat seksuele gedrag moet verander. Gedragsveranderingsprogramme behoort inligting oor risikos te bevat en behoort gereeld, herhaaldelik en intensief aan werkers gekommunikeer te word. Effektiewe Hiv en Vigs kommunikasie behoort die verskaffing van relevante en betekenisvolle inligting wat akkuraat, konstant, herhaaldelik met die gebruik van verskeie metodes, mediums en tale, insluitend die moedertaal van werkers, wat op vorige kennis oor Hiv en Vigs geskoei is en wat terselfdertyd die verskillende persoonlike agtergronde van werkers in 'n omgewing in ag neem en wat oop interaksie bevorder en erken, in te sluit. Die outeurs se argumente handel oor anekdotiese bewyse wat versamel is gedurende 'n reeks nasionale multi aandeelhouer werksinkels asook die bevindings van kennis, houdings en gedrags opnames van twee proewe wat gedoen is, een in Suid Afrika en een in Namibië. Hierdie proewe is gedoen om groter betrokkenheid van konstruksiewerkgewers te verkry in doelgerigte gestruktureerde bestuursgerigte Hiv en Vigs kommunikasie programme, spesifiek ontwerp om seksuele gedrag te beïnvloed. As in gedagte gehou word dat televisie en radio die mees gewilde en invloedryke mediums van kommunikasie is, word werkgewers aangemoedig om Hiv en Vigs veldtogte en boodskappe deur hierdie mediums as deel van primêre gesondheidsprogramme te ondersteun en te versterk. Verder word deur die outeurs aanbeveel dat werkgewers die geleenthede behoort te skep vir Hiv en Vigs onderrig vir werkers.

Sleutelwoorde: kommunikasie, HIV, Vigs, media, gedragsveranderinge

1. Introduction

The only viable means of reducing the spread of HIV¹ infection is via large scale change in sexual behavior and not merely through protection during sex. To date very few interventions have influenced the prevalence or incidence of HIV. Consequently, achieving behavior change is complex. Raising awareness, educating persons about the nature of HIV and AIDS² and ways of preventing infection, condomization and reducing high-risk behaviors according to Harrison, Smit & Myer (2000) have been strategies used. The content of behavior prevention programs should include risk information that is repeated intensively in forums that promote open discussion and participant involvement. The communication of information that targets a specific risk group and focuses on deficient knowledge of that group about HIV and AIDS is more likely to influence poor sexual behavior. Several authors argue that prevention programs require intensive, individually focused and longer-term efforts to prevent HIV transmission and bridge the gap between high levels of knowledge and low levels of practice (Harrison *et al.*, 2000; Varga, 1997). Many researchers have, for example, found respondents to have deficient knowledge about HIV transmission by mosquito bites (Lim & Loo, 2000; Haupt & Smallwood, 2003a; 2003b; Smallwood *et al.*; 2002). Simply communicating dry scientific evidence in media messages is insufficient to convince persons about how HIV cannot be contracted (Nicoll *et al.*, 1993) by this means. Booth (1987), suggests, for example, that it would be better to explain that mosquitoes can only transmit HIV if 10 million mosquitoes fed on a HIV affected person and then all of them flew to feed on another person.

Several studies have confirmed that the Southern African population has high levels of awareness about HIV and AIDS (Harrison *et al.*, 2000; Lim & Loo, 2000; Haupt & Smallwood, 2003a; 2003b). Arguably, the Southern African mass media campaigns to inform about HIV and AIDS have largely been successful. These have included leaflets, posters, television and radio messages in several languages. Considering that information in the mass media does not necessarily reach everyone, high profile and targeted communication is necessary to reach 'hidden' groups in the general population (Wellings

¹ The Human Immunodeficiency Virus

² Acquired Immunodeficiency Syndrome

& Macdowall, 2000). These groups need more and focused information about specific aspects of the disease especially where their knowledge is deficient and uncertain. When targeting these specific groups prejudice against them must be discouraged and not reinforced. Mass media have been found to be less effective in conveying complex information, teaching skills, shifting attitudes and beliefs, and changing behavior in the absence of other enabling factors (McGuire, 1995; Wellings & Macdowall, 2000). Messages may fail to reach the audiences for which they were intended. They may also reach audiences for which they were not intended. Mass media messages may be misunderstood. On the other hand, targeted interventions are more easily controlled and followed up.

Little attention has been devoted to the investigation of HIV and AIDS at the workplace suggesting that the workplace is often not associated with the high-risk behaviors leading to the transmission of HIV (Lim & Loo, 2000; Goss & Adam-Smith, 1995). Further, while persons living with HIV are capable of performing to the same levels of other workers, many employers have opted for rather dismissing them once their serostatus is known (Lim & Loo, 2000).

This paper reports on the findings of knowledge, attitude and behavior (KAB) surveys of two samples in Southern Africa, namely Sample A comprising of 300 construction workers in the Western Cape and Eastern Cape provinces of South Africa, and Sample B comprising of 400 construction workers in Namibia. The authors argue that before an objective and appropriate HIV and AIDS information sharing program can be designed, program designers should be fully aware of the potential of various forms of communication relative to their effectiveness to influence sexual behavior change.

2. Research

KAB surveys are used to investigate exposure to, recall and comprehension of information and self-reported behavior change. The authors are aware of the limitations of such an approach relative to monitoring changes in the social context since they focus on the responses of individuals; validity and reliability; and socially desirable responses.

Different research instruments were used for each of the two samples. For Sample A the investigators adapted a questionnaire previously

developed by the Human Sciences Research Council (HSRC).³ Many questions were directed at the role of the media and employers as sources of HIV and AIDS information. The questionnaire used for Sample B concentrated more on the role of employers and interventions. In both cases, construction workers were personally interviewed on a voluntary basis during their tea and lunch breaks on construction sites by arrangement with consenting employers. Participants were assured of anonymity and informed of the purpose of the study. They were also permitted to answer only those questions that they felt comfortable with.

3. Sample A – South Africa

The ethnicity of Sample A was made up of 70.3% Black Africans, 28.3% Coloreds, and 1.4 % Whites. Most respondents (77%) had at least 8 years of schooling. Xhosa was the most widely spoken language followed by Afrikaans. English was therefore largely a third language. Workers had worked in construction for a median 2.0 years, for their current employers for a median 0.5 years, and on present projects for a median 0.25 years. Relative to work category, the sample consisted of 48% unskilled workers, 12% semi-skilled workers, 23% skilled workers 23%, and 17% site administration.

These results are indicative of the status quo of the South African construction industry. Construction workers are regarded as migrant moving from employer to employer as projects terminate. Since unskilled workers perform most of the menial tasks involved in construction they numerically dominate construction employment. The ratio of unskilled workers to other categories of workers is typical for South African construction sites.

Evidently, most (70.4%) of the respondents had frequently obtained information about HIV and AIDS during the six-month period preceding the survey. Less than 10% of them had never been exposed to any information during that period.

The main sources of information about HIV and AIDS during the same period are shown in Table 1. Most respondents obtained their

³ Human Sciences Research Council Study of knowledge, attitudes, perceptions and beliefs regarding HIV and HIV AND AIDS. South Africa: Human Sciences Research Council (Focus Group Health Care Group, 1992; Pretoria: South African Data Archive distributor, 2000

information from radio (96.3%) and television (95.4%) programs and advertisements. Posters (88.4%), magazines (87.3%) and newspapers (84.1%) were the next popular sources of information. Only 61% of respondents reported that they had obtained any HIV and AIDS information at work.

Table 1: Sources of information during 6 months before survey

Source	Yes	No	Don't know
Radio	96.3%	2.3%	1.4%
Television	95.4%	3.7%	0.9%
Posters	88.4%	11.1%	0.5%
Magazine	87.3%	7.8%	4.9%
Newspapers	84.1%	10.8%	5.1%
Brochures/pamphlets	66.5%	16.5%	17.0%
Advertisement on taxis and buses	63.9%	27.7%	8.4%
At work	61.0%	38.0%	1.1%
Videos or films	57.1%	40.2%	2.6%
Audiotapes	25.1%	62.0%	12.8%

Television (77%) and radio (73.8%) were the two most frequent sources of obtaining information. Posters (64.4%), magazines (63.5%) and newspapers (65%) were less frequent sources used. These sources also increasingly required respondents to read. This finding hints at the likelihood of most of the respondents having low levels of literacy or access to reading material in their mother tongue. Information at work was obtained often by only 43.2% of the respondents. These results are shown in Table 2. These findings in Tables 1 and 2 are consistent with the study of Smallwood, Godfrey & Venter (2002) where television and radio predominated with 69.0% and 76.7% respectively.

Table 2: Frequency of obtaining information during previous 6 months

Source	Often	Seldom	Never	N/A	Mean ⁴	Std. Dev.
Television	77.0%	15.6%	4.8%	2.8%	1.33	0.69
Radio	73.8%	18.6%	5.7%	1.9%	1.36	0.68
Posters	64.4%	19.9%	12.3%	3.4%	1.55	0.84
Magazine	63.5%	20.2%	9.9%	6.3%	1.59	0.91
Newspapers	65.0%	19.3%	10.3%	5.3%	1.64	1.58
Brochures/pamphlets	46.2%	33.8%	14.1%	6.0%	1.80	0.90
Advertisement on taxis and buses	41.5%	36.8%	17.1%	4.7%	1.85	0.87
At work	43.2%	15.7%	36.2%	4.8%	2.02	1.00
Videos or films	37.4%	18.9%	36.1%	7.5%	2.14	1.01
Audiotapes	17.2%	29.1%	41.4%	12.3%	2.48	0.92

While advertisements on taxis and buses provide much needed additional revenue⁵ for operators of these services they appear to fail as vehicles to convey information about HIV and AIDS considering that only 41.5% of respondents obtained information in that way during the previous six months.

As evidenced in Table 3, slightly more than half of the respondents (51.2%) reported that they had proactively sought information about HIV and AIDS; two-thirds had during the previous month discussed the issue with fellow workers; and a similar proportion wanted their employers to provide them with information. However, 13.7% of them were uncertain about the role of employers in providing information. Further, considering that more than two-thirds of respondents had proactively and of their own volition sought information about HIV and AIDS through discussions with their fellow workers the important role of peer educators is evident. In terms of South African legislation, namely the Occupational Health and Safety Act 85 of 1993 contractors need to have one full-time worker as a health and safety representative for every 50

⁴ On the four point Likert scale of frequency the closer the mean is to 1 the greater the degree of frequency (often)

⁵ Operators were estimated to earn about ZAR600 per month per vehicle

workers or part thereof. These persons if adequately trained would be ideal candidates to perform the function of peer educators.

Table 3: Proactive efforts for information

	Yes	No	Don't know
Have you ever tried to obtain information about HIV and AIDS yourself?	51.2%	48.2%	0.4%
Have you ever discussed HIV and AIDS with any of your workers during the past month?	67.0%	31.6%	1.4%
Should your employer provide you with information about HIV and AIDS?	69.7%	16.5%	13.7%

The use of a knowledgeable speaker as part of an awareness education program at work was the most preferred form (95.6%) of employer-driven information sharing about HIV and AIDS. Counseling provided or made available during worker wellness management was also highly popular (85%). Other popular forms of preferred employer information sharing included posters (82.3%), and induction or orientation programs that include information about HIV and AIDS (80.8%). Table 4 presents these responses ranked according to degree of preference.

Table 4: Preferred form of information sharing by employer

Source	Yes	No	Don't know
Awareness education (speaker)	95.6%	2.5%	2.0%
Wellness management eg. Counseling	85.0%	8.3%	6.7%
Posters	82.3%	15.4%	2.3%
Induction	80.8%	9.3%	9.3%
Newspapers	75.7%	16.8%	7.5%
Videos or films	75.2%	18.6%	6.2%
Newsletters	75.0%	20.3%	4.7%
Toolbox talks	73.9%	15.2%	10.8%
Role plays	70.3%	19.8%	9.9%
Brochures/pamphlets/flyers	63.6%	18.2%	18.2%

Persons associated with medical experience were the most influential sources of information to bring about change in behavior or lifestyle, which is the desired response to HIV and AIDS information. Employers as influential agency for changed behavior ranked 11th out of 12 sources of information. This finding suggests that construction employers are not as influential as they should be probably because of their lack of involvement in HIV and AIDS awareness and support programs.

Table 5: Influence of source of HIV and AIDS information to change behavior or lifestyle

Source	Not at all	Slightly	Very much	Mean ⁶	Std. Dev.
Doctor	16.7%	9.7%	73.2%		
Nurse	15.1%	14.3%	70.5%	2.55	0.74
Health worker	15.7%	16.5%	67.7%	2.52	0.75
Infected person	18.9%	27.6%	53.5%	2.35	0.78
Family	18.5%	43.8%	37.8%	2.19	0.73
TV	21.7%	45.0%	33.3%	2.16	0.92
Friends	17.7%	49.4%	32.9%	2.15	0.70
Radio	21.2%	44.9%	33.9%	2.13	0.73
Fellow workers	18.9%	51.6%	29.5%	2.11	0.69
Literature	23.2%	46.5%	30.3%	2.07	0.73
Employer	26.5%	40.8%	32.7%	2.06	0.77
Traditional healer (Sangoma)	66.7%	19.6%	13.8%	1.47	0.73

Contrary to expected popular belief, traditional healers such as sangomas were rated as the least influential sources of information. These results are shown in Table 5. Of note is the rating of TV and radio above employers as sources of influence confirming the importance of their role to inform and influence behavior change.

⁶ On the three point Likert scale of influence the closer the mean is to 3 the greater the degree of influence according to the respondents

Table 6: Employer interventions to combat HIV and AIDS and STIs

Intervention	Yes	No	Don't know
Provision of condoms	93.7%	4.2%	2.1%
Awareness education (speaker)	93.6%	3.4%	3.0%
Wellness management eg. counselling	84.2%	7.7%	8.1%
Posters	82.4%	12.3%	5.3%
Induction	75.0%	9.6%	15.4%
Newsletters	71.1%	18.4%	10.5%
Videos or films	68.7%	21.7%	9.6%
Newspapers	68.1%	21.2%	10.6%
Toolbox talks	68.1%	14.9%	17.0%
Role plays	66.7%	12.6%	20.7%
Brochures/pamphlets/flyers	62.2%	16.5%	21.3%

As evidenced from the data in Table 6, the employer intervention most preferred by workers (93.7%) to combat HIV, AIDS and STIs was the provision of condoms reflecting the effectiveness of the national 'condomization' campaign in the popular media such as radio and television. This finding confirms the reliance on protection rather than changed behavior to prevent infection. This finding is similar to the study of Smallwood, Godfrey & Venter (2002) where the provision of condoms predominated (76.5%) as the preferred employer related intervention. The use of condoms creates a false sense of security among workers much in the same way as personal protective equipment (PPE) does to the hazards they are exposed to during construction activities. Condoms should like PPEs preferably be the measure of last resort and not first resort as the finding in Table 6 suggests. Similarly, the use of an invited speaker as part of an education awareness program rated as the next preferred intervention, namely 93.6% in Table 6 and 74.1% in the Smallwood, Godfrey & Venter (2002) study.

4. Sample B – Namibia

In this sample of 400 Namibian workers only 23.1% reported at least 8 years of schooling while 57.6% had either completed 12 years of schooling or obtained a Matriculation Certificate. This finding suggests a well-educated labor force.

Workers had worked in construction for a median 2.0 years. They had worked a median 0.8 years for their current employers. Further, they had worked for a median 0.75 years on present projects. This particular finding compares well with that of Sample A.

The sample consisted of 32% unskilled workers, 35% semi-skilled workers, 16% skilled workers, and 17% site administration. The distribution of levels of skills was reflective of the high levels of education of the labor force with the number of semi-skilled workers exceeding the number of unskilled workers.

Table 7: Awareness of HIV and AIDS

	Yes	No	Unsure
Have you heard of HIV and AIDS?	95.2%	4.2%	0.6%
Is there something such as HIV and AIDS?	95.1%	1.9%	3.0%
Is HIV and AIDS a serious problem in your community?	92.9%	3.8%	3.3%
Is HIV and AIDS a serious problem in your workplace?	76.5%	11.2%	12.3%

From Table 7 it is evident that almost all the workers reported that they had heard about HIV and AIDS and that they were convinced that both existed, confirming an effective information sharing campaign in Namibia. Although almost all of them (92.9%) considered HIV and AIDS serious problems in their local communities, significantly fewer (76.5%) of them reported them as serious work-related problems. This finding suggests that Namibian employers are like their SA counterparts not as influential as they could be relative to HIV and AIDS.

The findings in Table 8 suggest that where employers presently provided information about TB (49.8%), STIs (55.8%), and HIV and AIDS (61.7%), construction workers wanted them to play greater roles in providing information relative to all three issues, namely TB (67.9%), STIs (73.8%) and HIV and AIDS (74.4%).

Table 8: Role of employer relative to information

Want to have provided			Issue	Presently provided		
Yes	No	Unsure		Yes	No	Unsure
67.9%	28.4%	3.7%	Tuberculosis (TB)	49.8%	39.7%	10.5%
73.8%	25.0%	1.2%	Sexually Transmitted Infections (STIs)	55.8%	31.8%	12.4%
74.4%	23.8%	1.8%	HIV and AIDS	61.7%	31.1%	8.1%

When asked about the treatment of HIV and AIDS 78.3% of workers correctly reported that doctors could not at present cure infected persons. A similar proportion (77.7%) of them opined that traditional healers such as sangomas and sanusi could also not treat and cure infected persons from HIV and AIDS. Likewise 71.1% of workers correctly reported that a vaccine or injection against infection did not exist. Of concern though are the remaining workers who were unsure about the possibilities of these agencies to treat and cure infected workers. These results are shown in Table 9.

Table 9: Treatment and curing of HIV and AIDS

Agent	Yes	No	Unsure
Doctors	11.4%	78.3%	10.3%
Traditional healers (sangomas or sanusi)	5.0%	77.7%	17.0%
Vaccine (injection)	9.7%	71.1%	19.2%

Table 10 indicates the responses of workers relative to interventions that construction employers could introduce at work. As with the South African sample the Namibian workers favored the provision of condoms above other forms of interventions. The other interventions differed from the responses of their SA counterparts. For example, awareness education in the form of an invited speaker ranked lower (5th) than in South Africa (2nd) with a smaller proportion (73.3%) than the South African workers (93.6%). However, pamphlets and flyers, plays and toolbox talks in both countries ranked lowest as preferred employer related interventions. This finding suggests preference for the soft and non-confrontational option of condom usage instead of the harsher confrontation with the need to change sexual behavior.

Table 10: Employer related HIV and AIDS interventions

Rank	Intervention	SA Rank	Yes	No	Unsure
1	Provision of condoms	1	88.5%	6.9%	4.7%
2	Induction programs	5	81.2%	7.2%	11.6%
3	Video	7	76.0%	14.5%	9.5%
4	Newsletters	6	74.7%	14.1%	11.2%
5	Awareness education (speaker)	2	73.3%	12.8%	13.9%
6	Posters	3	70.5%	20.5%	9.0%
7	Pamphlets/flyers	11	65.1%	18.3%	16.6%
8	Plays	10	57.7%	28.0%	14.3%
9	Toolbox talks	9	53.7%	31.7%	14.7%

5. Characteristics of effective communication

Communication has been described as an action that provides information that is relevant and meaningful to persons receiving the information. This information might not have the same meaning to different people and may not produce the same outcomes that are typically manifested in behavior and actions (Emmitt & Gorse, 2003). Effective communication involves cognition, a process of transforming and contextualizing sensory information to enable understanding, storage, recovery and use. It therefore follows that when information stands on its own, is not relevant to previous information and cannot be assimilated cognition does not occur (Emmitt & Gorse, 2003). The accuracy and consistency of the words and symbols used to communicate information is important to achieve mutual understanding. The success and effectiveness of communication involves the correct use of language that includes words, pictures and body language, and how these are received and interpreted. Language used on construction sites is different from that used in an office environment as workers create their own construction vernacular to communicate among themselves and that vernacular should be taken cognizance of. Effective communication is a two-way process that involves listening, clarification, explanation, reinforcement and feedback. Further, information that is shared must account for personal capability to process the information itself as well as the volume of it. Emmitt & Gorse (2003), argue for a phased approach over time using different

communication methods that include reiteration and repetition to avoid boredom, monotony, and apathy. Correct interpretation of information received is dependent on personal experiences, previous knowledge, schooling, training, attitudes and emotions.

Effective HIV and AIDS communication in construction, therefore, involves providing relevant and meaningful information accurately, consistently, reiteratively, and repetitively using multiple methods, mediums, and languages including vernacular, that build on previous HIV and AIDS knowledge while at the same time recognizing the differing personal backgrounds of workers in an environment conducive to open and uninhibited interaction.

6. Observations and recommendations

The study confirmed that most construction workers in South Africa were well informed about HIV and AIDS even though they had not been overly proactive in seeking out this information for themselves. The public media in South Africa and Namibia have been effective in communicating HIV- and AIDS-related information confirming their pivotal role in the prevention campaign. Radio and television programs, advertisements and messages were the most popular and frequent information sources. However, the continuing increase in the rate of new HIV infections supported by anecdotal evidence gained from a series of national workshops conducted by the authors with industry participants is disturbing and suggests that these messages might have lost their effectiveness. For example, attendees at these workshops reported the abuse of the child grant system in South Africa in terms of which the monthly amount of ZAR160⁷ per child is paid to qualifying mothers. Against the background of current high unemployment rates of around 30%, women, especially young women, choose to fall pregnant to access this 'regular source of income' not considering the threat of possible infection with HIV through unprotected sex with any willing partners. In many cases the identities of the fathers do not matter. The transient employment in construction of workers, who are often migrant, renders them particularly vulnerable to this apparent abuse with unintended consequences to the industry, while contributing at the same time to the rising rates of HIV infection.

⁷ About the equivalent of US\$25 per month

Neither radio nor television is a form of communication that is employer driven or related. In fact, the study found construction employers not to be major influences relative to HIV and AIDS. Employers were the 11th (out of 12) least likely agency to influence existing behavior and bring about lifestyle and sexual behavior changes. If the rate of new HIV infections is to be reversed construction employers have to be more proactively involved. Participants at the national series of workshops held by the authors confirmed that very few industry stakeholders were involved with primary health promotion programs or had in place any HIV and AIDS interventions. Employer involvement should not only include the provision of both male and female condoms, awareness and induction programs but also increased focused HIV and AIDS education that fulfills multiple purposes. These include the dissemination of necessary information that includes primary health issues; persuasion to change attitudes and sexual behavior; the equipping of workers with life skills necessary to prevent the spread of HIV infection; and the care of infected workers.

Considering that both South Africa and Namibia are multilingual countries with several official languages information needs to be shared in at least all of these languages. Further, regional approaches should be adopted especially where certain languages predominate. For example, the Department of Health in South Africa has produced a HIV and AIDS information flyer, which is region-specific in at least 3 of the dominant regional languages. Communication about HIV and AIDS should incorporate construction vernacular to improve understanding of communicated information. Where not possible, words and concepts should be carefully defined to ensure common and correct understanding.

There is clearly a need to educate workers about universal protection procedures against infection in situations of possible infection in the workplace that includes the use of gloves and the correct methods to clean up accidental blood and body fluids – whether injured workers are HIV positive or not. Further, workers need to be made aware that they can be held liable for damages if they infect sex partners without informing them about their HIV serostatus.

Considering the importance accorded to health care professionals such as doctors and nurses as well as persons infected with HIV as

agencies most likely to influence risky sexual behavior, they should be included in employer-driven education and communication programs. In this effort the local and primary health care clinics and voluntary organizations should be invited to participate. This participation should form part of structured primary health promotion (PHP) programs that include information on correct diet and exercise that are known to improve the immune system of the body, enabling it to better resist opportunistic infections. As these cells are attacked by HIV the CD4 or T helper cell count drops too low, opportunistic infections such as tuberculosis (TB), herpes, thrush and meningitis become life threatening. PHPs demonstrate the commitment of management to improve the general quality of life of workers and should involve them. Research has shown that peer education programs both empower and educate workers as part of a holistic continuum that includes counseling support and care services; wellness management, monitoring and evaluation; and resources provided by employers (Smallwood *et al.*, 2002).

Historically, South Africans have been largely influenced by both Calvinistic and traditional cultural value systems, which inhibited the discussion of stigmatized issues such as HIV and AIDS in an open and free manner. Even during the national workshops referred to earlier delegates were restrained in their contributions to the discussions on HIV and AIDS. For any employer-initiated intervention or program to succeed employers must create environments that promote and foster open and uninhibited dialogue among all parties around the issue. In such an environment workers need to be made aware despite their right under law to confidentiality relative to their HIV serostatus that the benefits of informing the employer could include allowances for time off to visit the clinic or doctor to obtain treatment and provide their employers with the opportunity to change the type of work they are doing to make their jobs a bit easier. Part of this process must include clearly demonstrated management commitment and involvement that will include establishment of employer-worker consultative forums such as HIV and AIDS committees, partnerships with labor unions and movements, and liaison with local communities. The focus of these relationships must be prevention, care and non-discrimination (Smallwood, *et al.*, 2002). These forums and relationships should form part of strategic planning and operational interventions.

7. Conclusion

This study has surveyed the effectiveness of various forms of HIV and AIDS communication, employer involvement and employee preferred employer driven interventions. In order for HIV and AIDS to be effectively combated construction employers must become more involved and facilitate better communication about the pandemic.

Communication must not be on a 'one-off' basis but rather form part of a structured program that is management led. It must be multilingual, consistent and repetitive while at the same time diversified to prevent staleness and complacency. Construction employers must support, reinforce and complement television and radio HIV and AIDS campaigns and messages that form part of primary health promotion programs. Local clinics and primary health care practitioners should be invited to be involved in these programs.

Additionally, HIV and AIDS communication must be escalated and focus on areas of deficient knowledge to prevent risky sexual behaviors. Consequently, it must feature high profile and targeted communication that takes place openly and involve workers. Since education of workers by peers has been found to be effective, opportunities must be created by employers for training of and participation by workers as health and safety representatives.

The present rates of HIV infection will be reversed everyone needs to become increasingly involved in communicating new and effective messages that lead to changed sexual behavior. All construction employers cannot be inert bystanders.

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