

# **EVALUATION OF AN HIV AND AIDS MANAGEMENT SYSTEM AT A COAL MANUFACTURING COMPANY IN THE KWAZULU-NATAL PROVINCE OF SOUTH AFRICA: A CASE STUDY**

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## **ABSTRACT**

In South Africa, HIV and AIDS workplace programmes have been implemented for more than two decades without any audited and certifiable standards. In 2007, the South African National Standard (SANS 16001, 2007) was launched to assist, encourage and support companies to implement the minimum standards for the HIV and AIDS Management System (HAMS). Consequently, companies were expected to establish workplace HAMS in line with the set standard, as specified in SANS 16001, assisting companies to establish, implement, maintain and improve their HAMS. A single case study, using a quantitative design was used to evaluate the implementation of the HAMS in a coal-manufacturing company operating in the KwaZulu-Natal Province of South Africa. The sample comprised all consenting participants who were selected from key drivers of workplace HIV and AIDS programmes, in accordance with the requirements of SANS 16001, and the general workers. Two different sets of questionnaires were used to collect data. One questionnaire was used to collect data from the managers because they were key role players in HAMS. The second questionnaire was used to collect data from the general workers. A statistician used both Microsoft Excel and the Statistical Package for Social Sciences (SPSS) version 19 to process and analyse the data. Tables and bar graphs were used to present the results. The results revealed that the company complied with most general requirements as specified by SANS 16601 for HAMS. However, more should be done in terms of training and documentation to ensure compliance with the HAMS.

**KEYWORDS:** AIDS, Assess-Plan-Implement-Monitor-Evaluate Model, case study research, HIV, HIV and AIDS Management System (HAMS), HIV/AIDS in the workplace, KwaZulu-Natal Province of South Africa, South African National Standard (SANS 16001)

## **INTRODUCTION AND BACKGROUND INFORMATION**

In South Africa, workplace HIV and AIDS programmes have been implemented for more than two decades without establishing audited and certifiable standards (Standards South Africa, 2007). Different companies managed HIV and AIDS in their own way without any standard of monitoring or evaluation. The South African Bureau of Standards (SABS) approved the development of a national HIV workplace standard and the development process began on 20th July 2006 with wide representation from government, the private sector, and higher education and research institutions. All present agreed that the development of a South African National Standard (SANS) was a good idea and that the AIDS Management Standard (AMS) 16001 would be used as a starting point. A working draft was prepared and submitted to the working group. The final draft was sent out to the working group for comments and voting. The AMS 16001 (2003), the standard for HAMS specification document was initially developed and published for the mines by the National Occupational Safety Association (NOSA) and De Beers Botswana (DEBSWANA), a mining company. The AMS provides guidelines for the effective management of HIV/AIDS by South African businesses (AIDS Management Standard, 2002). This led to the development of the South African National Standard (SANS 16001) (Standards South Africa, 2007).

SANS 16001 was launched by the South African National Standards Committee. It was approved by the South African Bureau of Standards (SABS) (Standards South Africa, 2007), based on the International Organization for Standardisation's guidelines (ISO) 9001 and ISO 14001. The aim of having the national standard to assist, encourage and support companies to implement minimum standards for HAMS with a philosophy of continual improvement towards best practice. It also recognises that its success depends on commitment from all levels and functions of the organisation, especially from top management.

## **PROBLEM STATEMENT**

The KwaZulu-Natal (KZN) Province in South Africa continues to report an increase in HIV prevalence from 38,7% in 2008 to 39,5% in 2009 (Department of Health, 2010:4). The ante natal HIV prevalence remained stabilised at 39,5% in 2010, which is the highest in South Africa (National Department of Health, 2011:8). The city is situated in the north of KZN and is one of the fastest growing economic towns in the country. Without drastic interventions for dealing with HIV and AIDS, the impact on businesses could be significant. Critics estimate that South African business and the country's

economy are losing millions of rands each year to HIV and AIDS (Van Schalkwyk, 2008:2). It is, therefore, necessary that companies have a sound HAMS. Prior to the SABS' launch of the SANS 16001, there was no standard management system for HIV and AIDS. Companies are expected to use this standard to improve their HAMS. It therefore, becomes imperative for companies to establish workplace HAMS in line with this standard. SANS 16601 is a management tool developed to assist organisations to establish, implement, maintain and improve their HAMS by measuring the outcomes, impacts, performance and return on investment (Standards South Africa, 2007). To determine to what extent the company's HAMS has been aligned to the SANS 16001, an evaluation of the current management system in relation to the SANS 16001 system was needed. The effective management of HIV and AIDS in the workplace is essential to reduce the negative economic consequences of the HIV epidemic.

## **SIGNIFICANCE OF THE STUDY**

According to UNAIDS (2010:23), most people living with HIV and AIDS in Africa are between the ages of 20 and 49. This age group represents the economically viable sector of the country. UNAIDS also highlighted the top 20 causes of death in South Africa and AIDS-related deaths was found to be the major cause of death (UNAIDS, 2010:23). An estimated two out of every three people living with HIV are employed, thus making workplaces the ideal environment for disseminating information and education programmes (UNAIDS, 2008:33).

There was no standardised HAMS in South Africa until 2007 when the SABS launched the SANS 16001 (Standards South Africa, 2007). Until that time, some companies did not have HAMS, instead had company-specific HIV and AIDS programmes. It became imperative for companies to establish workplace HIV and AIDS management systems that meet the HAMS requirements. The company, in which the research was conducted, had made attempts to align its HAMS to the SANS 16001. To determine the extent to which the company's HAMS had been aligned to the SANS 16001 (2007), an evaluation of the current management system in relation to the new SANS 16001 system was needed. The company could use the results of this study to improve its HAMS.

## **AIM OF THE STUDY**

The aim of the study was to evaluate the implementation of HAMS in one coal-manufacturing company.

## **OBJECTIVES OF THE STUDY**

The objectives of the study were to:

- evaluate the implementation of HAMS in one company
- assess the level of alignment of the existing company's HAMS to the national standard

## **RESEARCH METHODOLOGY**

A single case study, using a quantitative research design, was used to evaluate HAMS in one company. Case studies are used by researchers in order to thoroughly explore a programme, an event, an activity, a process or one or more individuals, but families, groups, institutions and other social units may also be the focus (Yin, 2009:17; Polit & Beck, 2008:235). A case study design allowed the researchers to evaluate the implementation of HAMS in one company.

## **STUDY SETTING**

The company operates in the mineral export sector, and has about 487 workers. This company provides comprehensive health care services such as primary health care (PHC) on site to all employees despite the fact that almost all employees belong to medical aid schemes to which the company contributes 50% of the cost for each employee.

## **SAMPLING AND SAMPLING TECHNIQUE**

The sample consisted of all consenting participants who were selected from key position holders and the general workers in accordance with the requirements of SANS 16001 (Standards South Africa, 2007). These key position holders comprised senior managers, middle managers and those employees who played an important role in implementing HAMS. The general workforce has no specific role in implementing HAMS. SANS 16001 (Standards South Africa, 2007) prescribes that the top management shall, in consultation with relevant stakeholders, define the scope of its HAMS; hence the study investigated the availability of the company HAMS from the general workforce and the key role players.

### **Key position holders**

Purposive sampling, according to the categories of key position holders, was used to select the sample. A total of 40 key position holders participated in this category. Table 1 portrays the roles played by these persons in implementing HAMS. The following key position holders participated in this study:

- One senior manager. According to the requirement of HAMS, the most senior person is appointed to assist the company to effectively manage the HIV and AIDS risk to the company; the general manager was designated to manage health, safety, environment and compliance (HSEC) issues including HIV and AIDS
- One HIV and AIDS coordinator. He/she is responsible for maintaining the HAMS and the project plan objectives, targets and continual improvement, including the maintenance and updating of the HAMS success indicators. He/she provides administrative and programme support to the HIV and AIDS programme manager
- Two occupational health nurses. They ensure that the HIV and AIDS policy is communicated and perform counselling and testing according to legislation. The two nurses formed part of management as they provided managerial functions
- Four union representatives. There are two main union representatives and six alternative union representatives. Two main union representatives and two from alternative representatives participated in the study
- Eight HIV and AIDS peer educators. There are 15 peer educators attempting to persuade their peers to increase health seeking behaviours and to reduce risky behaviours.
- Eleven Safety and Health Environment (SHE) representatives. SHE representatives are required to include HIV and AIDS-related risks in their scope of practice. There are about 25 SHE representatives in the company.
- Six first aiders. There are 25 appointed and trained first aiders within the organisation. The first aider's role is risk management mitigation by avoiding becoming infected with HIV whilst carrying out first aid duties and to prevent others from becoming infected with HIV after an incident or accident. They were less often utilised in the participating company because onsite clinic staff were available
- Seven HIV and AIDS committee members. There are about 15 members of the committee representing all levels of employees within the organisation with regards to HIV and AIDS issues and to assist the HIV coordinator with decision making regarding interventions

### **General Workers**

A randomly selected sample of 104 participants, from the general workforce of 487 persons, participated in the study. There are five departments, and from each department, workers were selected using simple random sampling. Probability sampling technique was used because it increased the likelihood that all elements in the population would have an equal chance of being included in the sample (Polit & Beck, 2008:344). The employment records from the Human Resources Department were used as the sampling frame to select the sample. Each participant volunteered to be part of the study and signed a consent form specifying his/her willingness to participate in the study or not to do so.

## **PRE-TESTING OF THE INSTRUMENT**

A pre-test was conducted on two managers and two general workers to determine if the questions were understood. No changes were made to the questionnaires. The pre-test data were excluded from the final data set.

## **DATA COLLECTION**

Two different sets of questionnaires were used to collect data during August and September 2011. One questionnaire was used to collect data from the key role players in HAMS. The second questionnaire was used to collect data from the general workers as the SANS 16001 (Standards South Africa, 2007) prescribes that the top management shall, in consultation with relevant stakeholders, define the scope of its HAMS. Two sets of questionnaires were used to collect data because the questionnaires were phrased slightly differently. A trained research assistant administered and collected the questionnaires to prevent the risk of bias and coercion by the presence of the researcher, who is an occupational health nurse in this company. The self-completion questionnaires were distributed by a trained research assistant after the team meetings that were held monthly by the key role players and general workforce to discuss HAMS. The participants were given approximately 45 minutes to complete the questionnaires in a private room away from any form of distraction and the questionnaires were collected after the meeting by the research assistant. To maintain confidentiality, the participants were requested not to write their names on the questionnaires.

## **DATA ANALYSIS**

A statistician used both Microsoft Excel and the Statistical Package for Social Sciences (SPSS) version 19 to process and analyse the data. Tables and bar graphs were used to present the results.

## **VALIDITY AND RELIABILITY**

To ensure content validity, the researcher used the SANS 16001 as a guideline to develop both questionnaires. Furthermore, the research supervisors assisted in evaluating the questionnaires and content validity was also checked by a statistician. In order to ensure the reliability of the questionnaires, a pre-test of the questionnaires was done and no changes were required. Training the research assistant enhanced reliability of the data collection process.

## ETHICAL CONSIDERATIONS

Permission to conduct the study was granted by the Durban University of Technology Faculty Research Committee and by the participating company. After ethical clearance had been granted by the Durban University of Technology Faculty Research Committee and the company, all participants signed informed consent forms to participate in the study. The participants were given a choice to opt out of the study and also to withdraw from the study at any point if they wished to do so without any threat whatsoever. To ensure anonymity and confidentiality, the questionnaires were identified with codes, and no names were written on the questionnaires. No one could link any completed questionnaire with any specific employee.

## RESULTS

Key position holders involved in implementing HAMS

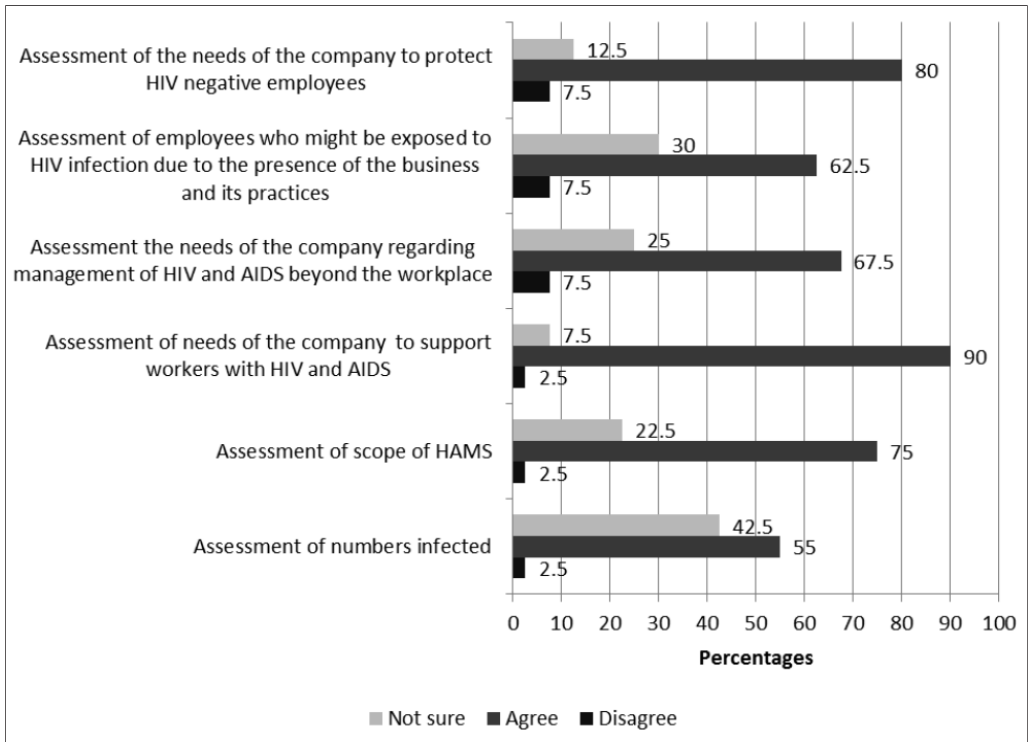
Table 1 indicates that key position holders were represented in HAMS as prescribed by SANS 16001. According to SANS 16001, top management should appoint one or more management representatives who, irrespective of other responsibilities, shall have defined roles, responsibilities and authority for the management of HAMS. The general manager was delegated by the chief executive officer to manage HAMS. The occupational health nurse was delegated by the general manager to run the activities of HAMS (Standards South Africa, 2007).

**Table 1:** Key position holders involved in implementing HAMS

		Frequency	Percent
	General Manager	1	2,5
	Occupational Health Manager	1	2,5
	HIV and AIDS committee member	7	17,5
	Peer educator	8	20,0
	SHE representative	11	27,5
	First aider	6	15,0
	Occupational Health Nurse	2	5,0
	Union Representative	4	10,0
	Total	40	100,0

### Assessment of the HIV needs of the company

The results in figure 1 indicate that the company was committed to the process of HAMS. At least 80% of the participants reported that there were systems in place for assessing the needs of the company to protect HIV negative employees and to support workers with HIV and AIDS. Counselling and testing for HIV and AIDS as well as treatment of minor illnesses occurred on a daily basis. Thus employees could be assessed and have access to HAMS on a daily basis, if required.

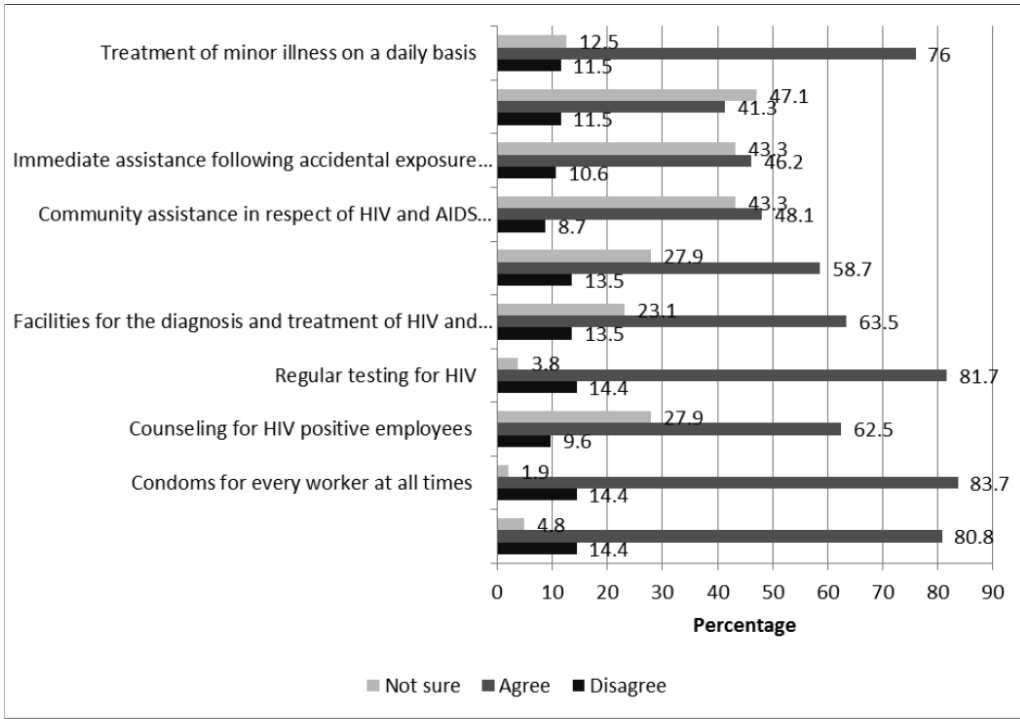


**Figure 1:** Assessment of the HIV needs of the company

### Implementation of HAMS

The results indicated that general information, education and communication about HIV and AIDS were communicated to all employees. Condoms were available to all workers and HIV counseling was accessible to all employees. There was regular testing for HIV, facilities for the diagnosis and treatment of HIV and AIDS were available.





**Figure 2:** Implementation of HAMS

## DISCUSSION OF RESULTS

### Evaluation of the implementation of HAMS

SANS 16001 expects an organisation to provide its employees with sufficient HIV-related education to enable them to make informed choices about behaviours that might put them at risk of becoming infected with HIV (Standards South Africa, 2007). The standard further states that the infected and affected employees must be able to access treatment, care and support. The findings of the study revealed that both the general workers and management agreed that treatment for minor illnesses was available on a daily basis. This was a positive note as the treatment of minor illnesses prevents transmission of diseases (De Haan, Dennill & Vasuthevan 2005:24). ART requires life-long adherence to be effective and to prevent the development of resistant HIV strains (Goudge & Ngoma, 2011:S52).

The results of this study indicated that general information, education and communication about HIV and AIDS were communicated to all employees. Condoms were available to all workers, counselling for HIV positive employees was done. There was regular testing

for HIV, facilities for the diagnosis and treatment of HIV and AIDS were available. This indicates that there was care and support from the company for employees with HIV and AIDS. Booyens (2005:32) states that policy and information on employee assistance programmes for the enlightenment of all personnel are essential to ensure management support and to encourage general use of the programmes. Joint agreement between management and the representatives of the workers is desirable for ensuring the success of the Employees Assistance Programme (Van der Merwe, 2007:22).

However, many HAMS teams were unaware of and most general workers were unsure about the availability of post exposure prophylaxis treatment in the event of accidental exposure of an employee, the availability of immediate assistance following accidental exposure to HIV in the workplace, and community assistance in respect of HIV and AIDS through corporate social investment. South Africa's National Strategic Plan on HIV, STIs and TB 2012-2016 has identified education as a protective factor for preventing HIV infections (Department of Health, 2012:36).

According to SANS 16001, the organisation should establish, implement and maintain procedures to monitor and measure, on a regular basis, the key characteristics of its operations and employees that can impact on the performance of the HIV and AIDS management system (Standards South Africa, 2007). The study findings from both the key position holders and the general workers revealed that 47.5% (n=19) of the managers were unaware of the periodic review criteria for success. Out of 104 general workers, 64.4% (n=67) were also unaware of the periodic review requirement. These results indicated that there was a need for a regular periodic review of HAMS.

There was evidence that the company was committed to continuous improvement regarding HIV and AIDS management as indicated by both management and the general workforce. However, a number of employees were unsure. There was no evidence of any corrective action taken regarding non-conformities from both the key position holders and the general workers. Out of 104 general workers, 42.3% (n=45) were not aware of HIV and AIDS records and document keeping. Similarly, 32.5% (n=13) of the key position holders indicated that they too were unaware of the HIV/AIDS record and document keeping. There was also insufficient evidence indicating that internal or external audits had been carried out.

### **Level of alignment of the existing company's HAMS to the national standard**

The overall findings of this study revealed that the company was committed to the process of HAMS. Based on the Assess-Plan-Implement-Monitor-Evaluate Model five elements, the following findings were noted:

**Assessment:** There was no indication of a recent assessment of the prevalence of HIV in the company. Daily counseling and testing for HIV and AIDS as well as treatment of minor illnesses were available on a daily basis. This enabled employees to be assessed and to have access to HAMS on a daily basis, if required.

**Planning:** The results revealed that the company had a policy which was communicated to all employees. The roles and responsibilities for managing HIV were managed according to the standard's requirements. There was no evidence of available management system communications and documents such as targets and objectives and periodic review plans.

**Implementation:** The implementation of the statement of intent was contained in the HIV and AIDS policy, indicating the processes to be achieved, the stated targets, objectives and success criteria in order to comply with the country's legislation. Though there was no documented evidence of targets and objectives, the company HAMS was supported by the majority of employees (94.0%, n=98) who were aware of the HIV and AIDS policy and 86.0% (n=90) knew their HIV status.

**Monitoring and evaluation:** The SANS 16001 prescribes that the organisation must establish, implement and maintain procedures to monitor and measure HAMS on a regular basis (Standards South Africa, 2007). Out of 40 respondents, only 60.0% (n=24) of key position holders were unaware of any monitoring and evaluation concerning the activities of HAMS.

## **CONCLUSION**

The results revealed that the company was committed to HAMS and efforts were in place in terms of the operational processes. There was an HIV and AIDS policy, easy access for employees to HAMS with HIV counseling and testing available on a daily basis at the clinic, and employees were aware of their legal rights related to HIV and AIDS matters. Prevention, monitoring and treatment of HIV and AIDS were addressed. However, there was no evidence of all stake holders' participation. Key position holders require training to equip them to function in their respective positions with participation in and providing feedback about HIV and AIDS matters to fellow employees. There were significant elements of alignment to the new standard currently in the company's HAMS, but more needs to be done in terms of training and documentation to ensure compliance to the HAMS.

## **RECOMMENDATIONS**

### **Policy implementation**

There is a need for periodic reviews of HAMS by the senior manager of the company. It is the function of HIV and AIDS committees to review the HIV and AIDS policy where after it must be approved by the senior manager. The HIV and AIDS policy should be communicated to all employees.

### **Organisational management and practice**

Workshops or training for HAMS committee members should remind them of their roles and responsibilities. The HIV and AIDS policy needs to be checked for necessary updates or reviews. The review process should involve all members of the committee. Consistent feedback to employees and possible proof of feedback should be documented. The HAMS plan and objectives should include periodic meeting of key role players. A consistent way of giving feedback to employees needs be formulated, agreed and established. Dialogue and discussion on issues related to HIV and AIDS should be encouraged in order to improve the HAMS. The ultimate objective should be for all employees to know their HIV status. An audit of SANS 16001 (2007) should be conducted regularly, as required. Internal audits should be done at least on a quarterly basis and external audits every two years. The HAMS committee must ensure that there is provision and maintenance of resources to assist individuals to cope with living with HIV and AIDS.

## **LIMITATIONS**

The study was conducted in one company and also based on participants' self-reported responses, which is a major limitation based on the fact that the study aimed to evaluate the implemented programme; therefore, the findings cannot be generalised to different companies. The study used two different questionnaires to gather information from the general workers and from managers concerning their opinions about HAMS. Only questionnaires were completed. More information might have been obtained if individual and/or focus group interviews could have been conducted.

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