

## **Management model for HIV/AIDS in a South African rural-based university**

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*(Received: 19 November 2013; Revision Accepted: 14 April 2014).*

### **Abstract**

The HIV/AIDS epidemic affects universities in terms of increases in operating costs, reductions in productivity, diversions of resources and threats to sources of income (Kelly, 2001; Katjavivi & Otaala, 2003). There is a higher prevalence rate of HIV in the rural-based universities compared with metropolitan universities which are well resourced (HEAIDS, 2010a). The purpose of this study was to develop and describe the management model of HIV/AIDS for a rural-based South African university. The model was developed based on the findings of the case study done at the University of Venda (UNIVEN), regarding the management of HIV/AIDS which indicated challenges regarding inadequate planning, limited organising, inadequate leading and inadequate control on the approaches to managing HIV/AIDS. The model stemmed from the management framework based on the four fundamental tasks of management which are planning, organising, leading and controlling. The model was organised using Walker and Avant's (1995) basic approaches to theory building: analysis, synthesis and derivation, integrated with Dickoff, James and Wiedenback's (1968) and Stevens Barnum's (1994) elements of practice theory: purpose, context, stakeholders, process, and dynamics.

**Keywords:** Rural-based University, HIV/AIDS management, management model, HIV/AIDS in South Africa.

### ***How to cite this article:***

Mavhandu-Mudzusi, A.H. & Netshandama, V.O. (2014). Management model for HIV/AIDS in a South African rural-based university. *African Journal for Physical, Health Education, Recreation and Dance*, 20(2:1), 372-388.

### **Introduction**

The differences in HIV/AIDS management between metropolitan and rural-based universities has been evidenced by Higher Education HIV/AIDS Programme (HEAIDS) (2010b) studies on HIV prevalence rates across South African universities showing a higher prevalence rate in the rural-based universities compared with metropolitan universities which are well resourced (HEAIDS, 2010a; HEAIDS, 2010b). Rural-based universities in South Africa are historically black universities established during the apartheid era in the former homelands, with the aim of perpetuating separate development to develop a sense of independence under the 1959 Act, which promoted the establishment of

ethnic universities situated in rural areas (Nkomo, 2007). Nkomo (2007) adds that these institutions were poorly funded, resulting in financial debts and severely impoverished intellectual cultures, compared with the better resourced metropolitan universities. These situations imply unique challenges for rural-based universities in many respects, including HIV/AIDS management. UNIVEN is one of those rural-based universities. It was founded in 1982, to cater for the tertiary education needs of the then Republic of Venda. Many UNIVEN students come from poor families in the Limpopo and Mpumalanga provinces. However, UNIVEN accommodates students from other sub-Saharan African (SSA) countries such as Botswana, Lesotho, Mozambique, Namibia, Swaziland and Zimbabwe (Patel et al., 2003; Diem, 2009). The study by Mavhandu-Mudzusi (2011) on how UNIVEN is addressing the HIV/AIDS epidemic confirmed the HEAIDS (2010a) finding regarding the difference in HIV/AIDS responses between metropolitan and rural-based universities, namely:

*(i) Inadequate planning*

UNIVEN had challenges related to planning suggesting inadequate planning for addressing the HIV/AIDS pandemic evidenced by inadequate preparation to address the need for managing HIV/AIDS, HIV/AIDS policy and strategic issues, inadequate resources for managing HIV/AIDS and ineffective programmes reducing the spread of HIV at UNIVEN.

*(ii) Limited organization*

UNIVEN had limited organisation of resources and programmes for HIV/AIDS management evidenced by the unfavourable location of the HIV/AIDS unit, inappropriate HIV/AIDS management organogram and inadequate coordination of HIV/AIDS activities.

*(iii) Inadequate leadership*

UNIVEN had inadequate leadership in HIV/AIDS management evidenced by inadequate support and lack of supervision consistent with Ambe-Uva's requirements (2007).

*(iv) Inadequate control*

UNIVEN had inadequate control of HIV/AIDS services evidenced by lack of monitoring and evaluation regarding HIV/AIDS management consistent with SANAC's (2007) recommendations.

Benchmarking indicated that the metropolitan University and the international rural-based University are well resourced to manage HIV/AIDS compared with South African rural-based universities. Each university adopted its own way of managing HIV/AIDS with different approaches to planning, organising, leading and control (Mavhandu-Mudzusi, 2011).

These observations suggest that management strategies used at rural based universities were ineffective. The purpose of this paper was to develop and describe an HIV/AIDS management model for a South African rural-based university.

The study was based on a management perspective of Cronje et al.'s (1991) modern process approach. The modern process approach considers the activities of an organisation as being consisting of seven functional areas, namely planning, organising, staffing, directing, coordinating, reporting and budgeting. It also considers four fundamental tasks of management, namely planning, organising, leading and controlling. It regards the functions of an organisation as being interdependent. The approach views the management theory as being in a state of development at a given time. It accepts the contribution of different schools of thought regarding management processes. The openness of this approach, regarding the contributions by all schools of thought and theories related to management, enabled the researchers to integrate the views of other prominent management authors such as Cloete (1991) and Smit et al. (2007) and link those views to the HIV/AIDS management model.

## **Methodology**

### *Model development processes*

The model was developed based on the findings by Mavhandu-Mudzusi (2011) as summarised in table 1, the conceptual framework and literature reviewed, using theory development designs and methods according to Chin and Kramer (1991) and Walker and Avant (1995) focusing on analysis, synthesis and derivation. These elements were utilised, integrated with Dickoff, James and Wiedenback's (1968) and Stevens Barnum's (1994) elements of practice theory: purpose, context, stakeholders, process, and dynamics, in order to organise the model.

### *Analysis*

The adapted methods of concepts analysis were used (Gift, 1997; Wilson, 1993; Walker & Avant, 1995). After reviewing the literature, the concept management approach was selected due to its relevancy to the research topic. Different definitions of the concept management were identified from several sources (Cronje et al., 1991; Sullivan & Decker, 1992; Booyens, 1996; Lussier, 2003; Williams, 2006; Smit et al., 2007). The four fundamental tasks of management identified by Cronje et al. (1991), namely planning, organising, leading, and controlling, were chosen as they included many attributes of the term management identified by several management authors. These four components

comprise the theoretical departure point for this study and they form the process of the model.

### *Synthesis*

The synthesis of the elements of the management model included construction of a theoretical framework out of data analysis based on findings from phase one of this study and the literature review and structuring and development of an HIV/AIDS management model in a rural-based university.

### *Derivation*

Derivation implies transposing and redefining a concept, statement or theory from one context to another. In the current study derivation was employed in all phases: interpreting the informants' inputs in phase one, derivation was used to acquire concepts from other contexts regarding HIV/AIDS management. Derivation was employed in the integration of the results of the interviews, documentary reviews and benchmarking in phase one as well as the literature review. In addition to using Walker and Avant's (1995) basic approaches, Mouton's (1996) framework for theory development was used to develop the model. Analysis was also done to refine the model, using a guide for critical reflection according to Chinn and Kramer's (1991) theory.

### *The structure of the model*

The structure of the model is composed of context, stakeholders (agents and recipients), dynamics (agent centred and programme centred), process and outcomes. There is a systemic relationship among all the elements. The relationship between all the elements is dynamic which needs regular review and adjustment of the processes as context and stakeholders are always changing. The process can also influence the context, the dynamics and the stakeholders. The application of dynamics influences the process and outcome of the model which in turn has an effect on the context and the stakeholders. Figure 1 is a schematic presentation of the management model for HIV/AIDS in a rural-based university of South Africa, showing the relationship between the elements of the model.

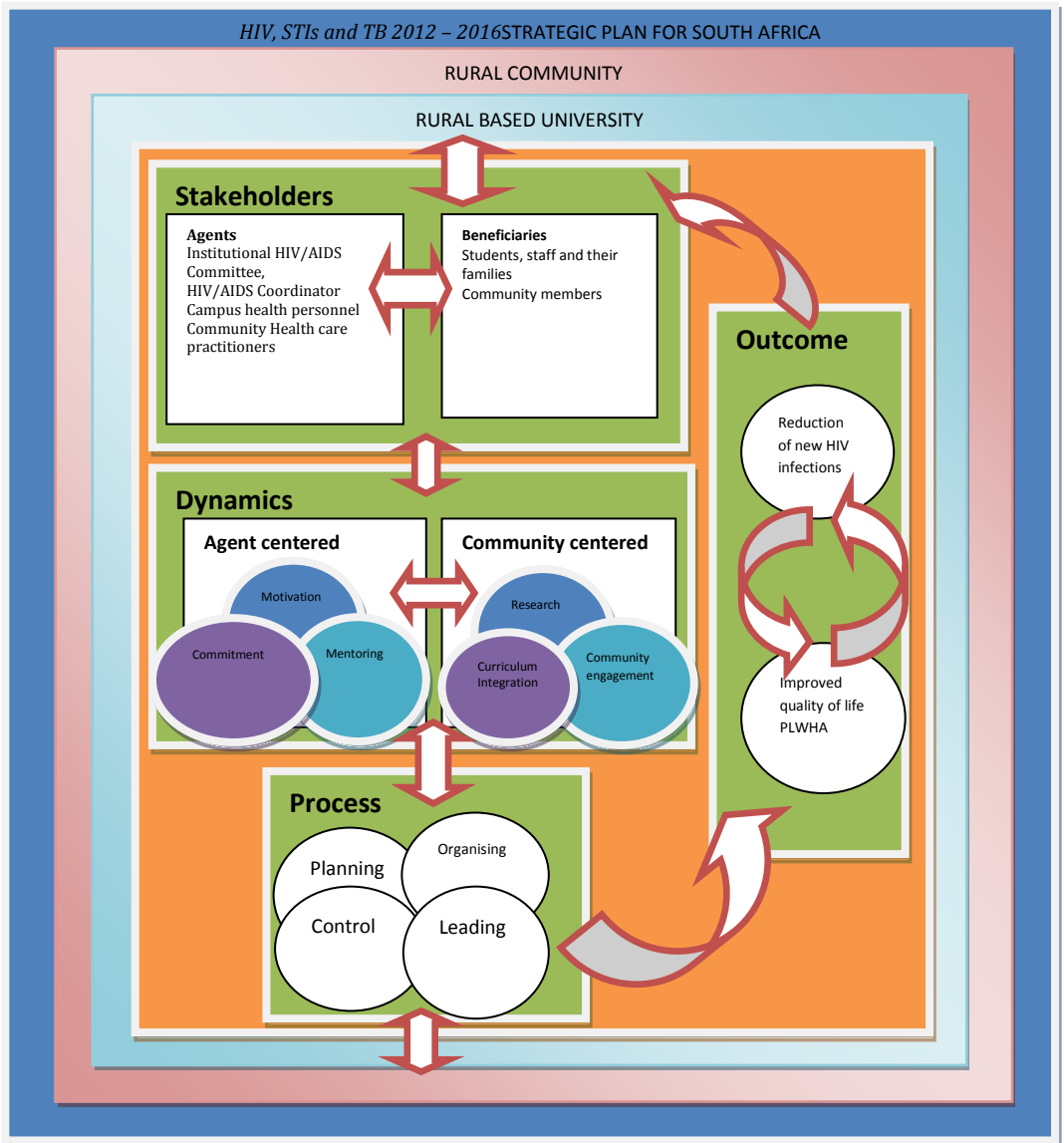


Figure 1: Management model for HIV/AIDS in a South African rural-based university

**Discussions**

The element of a management model for HIV/AIDS in a rural-based South Africa University

A description of each element of the model is outlined as adapted from Dickoff et al’s (1968) practice theory, which are context, stakeholders, process, dynamics and outcome, followed by a description of the interrelationship of the elements to make up a whole.

## **The Context**

The context is within the framework of the South African National Strategic Plan on HIV, STIs and TB 2012–2016, higher education (HE) and HEAIDS policy framework on HIV/AIDS, a rural-based university and a rural community. The outer rectangle is the HIV/AIDS and STI National Strategic Plan for South Africa and the higher education and HEAIDS strategic framework on HIV and AIDS.

### *Ethical measures*

Ethical aspects were adhered to throughout the research process. For phase one ethical clearance was granted by UNIVEN's Health, Safety and Research Ethics Committee. The informants were fully informed about the purpose of the research and their voluntary participation was obtained. Individual informants gave written consent. The informants' right to confidentiality was maintained by using pseudonyms. Permission was also granted to review the documents from the HIV/AIDS unit. The audio-recorded information was reviewed and transcribed only by the first author. The responses of different interviewees were discussed without using identities or positions on campus. During benchmarking, permission was first requested telephonically from the responsible person, followed by an email. Individual interviews were conducted. Throughout the focus group interviews, mutual respect and respect of each individual's point of view and inputs were emphasised.

### ***The National Strategic Plan on HIV, STIs and TB 2012–2016***

The South African National AIDS Council (SANAC) had developed the HIV, STIs and TB National Strategic Plan 2012-2016 (SANAC, 2012). This model was constructed by considering the strategic plan, emphasising the following key strategic objectives:

- addressing social and structural barriers that increase vulnerability to HIV, STI and TB infection
- preventing new HIV, TB and STI infections
- sustaining health and wellness
- increasing the protection of human rights and improving access to justice

For effective HIV/AIDS management at a South African rural-based university, all these strategic objectives should be considered, but using the approaches which are politically, economically, socially and culturally relevant to the university stakeholders.

### *The Higher Education and the HEAIDS policy framework on HIV/AIDS*

The higher education and higher education policy framework requires all the universities of South Africa to manage HIV/AIDS and stipulates the minimum requirements to be met by all universities.

#### *The rural community*

The rural community is presented as a second rectangle which is found between the HIV, STIs and TB National Strategic Plan and the HE and HEAIDS policy framework on HIV/AIDS. South African universities are working within the contexts of the surrounding communities. Rural-based universities are in rural communities which have a relationship with the traditional, cultural, social, economic and political response to HIV/AIDS management. The implementation of effective HIV/AIDS prevention programmes should consider sociocultural and economic determinants (HEAIDS, 2010a).

#### *Rural-based universities*

South African rural-based universities are under resourced and serve the majority of students and employees from indigent backgrounds. Each university is guided by its strategic plan and the HIV/AIDS policy. HIV/AIDS management should be considered as a university's strategic objective. The rural-based HIV/AIDS policy should address the specific socioeconomic aspects which are unique to the rural-based university. The relevant community and university stakeholders should participate in formulating the policy to ensure ownership and successful implementation of the policy. The context determines the type of stakeholders required for the HIV/AIDS management in a rural-based university.

### **Stakeholders**

The stakeholders comprise agents and recipients, including both community and university members.

#### *University stakeholders*

The following university structures should be actively involved in the HIV/AIDS management: University Council, executive management of the university, Senate, school boards, student representative council, people with disabilities, HIV/AIDS committee, HIV/AIDS coordinator, campus health personnel and staff unions.

### *Community stakeholders*

Community structures such as community health care providers and healers, all provincial and district departments of health, social welfare and education, traditional councils, civic associations, municipal wards committee, provincial, district and local AIDS councils, district AIDS council technical committees, house of traditional healers, organisation of churches, youth council, school governing bodies and other organisations and committees in the community should be included in HIV/AIDS management in order to obtain buy-in and support. Representatives from special groups such as People living with HIV and AIDS (PLWHA), sex workers, lesbians, gays, bisexuals, transgender and intersex (GLBTIs), people with disabilities and truckers form important stakeholders as they are the cornerstones for preventing the further spread of HIV/AIDS. The involvement of these stakeholders will differ depending on their responsibilities.

### **The Dynamics**

The dynamics are the energy sources of the activity (Stevens Barnum, 1994). These are power sources for the activity or people functioning towards the realisation of the outcome. The dynamics were categorised as agent-centred and programme-centred dynamics.

#### *Agent-centred dynamics*

The agent-centred dynamics focus on enhancing motivation, interest and commitment of the agents to perform the activities effectively. Agent-centred dynamics include motivation, mentoring and commitment.

#### *Motivation*

Motivation is required because the context of HIV/AIDS is extremely stressful, the resources are limited, and the rewards are not necessarily attractive. Unless there is intrinsic motivation, retaining staff to work in such an emotionally traumatising environment would be challenging.

#### *Mentoring*

Sustained formal mentoring of all people directly involved in HIV/AIDS management is necessary to prevent unnecessary frustration, stress and burnout. Mentoring should involve training, guiding and giving feedback on performance and the handling of specific tasks. Mentoring enhances quality service provision, retaining skilled staff members, and preventing burnout of people providing HIV/AIDS services (Lindsey, 2000; Goodwin, 2006).



### *Commitment*

There should be a supportive and committed leadership at the highest level for driving a strong sector response to HIV/AIDS. Leadership commitment ensures support for the agents and this contributes to increased motivation and commitment by the agents which will assist in the achievement of the purpose of HIV/AIDS management in a rural-based university.

Commitment, motivation and mentoring should form the basis of the HIV/AIDS management model in order to improve programme implementation, enabling the agents to focus on programme-centred dynamics.

### *Programme-centred dynamics*

The programme-centred dynamics focus on factors which enhance the quality and the effectiveness of the HIV/AIDS management programmes namely, community engagement in HIV/AIDS management, HIV/AIDS research, and integration of HIV/AIDS into the curriculum.

### *Community engagement in HIV/AIDS management*

Community engagement, an integral part of HIV/AIDS management, is a process actively involving the rural community in HIV/AIDS management, including the process of planning, organising, leading and control. Relevant stakeholders should be fully involved. Common practices of the area, such as rites of passage, traditional healing, polygamous marriages and initiation schools should be understood in order to identify valuable aspects for HIV/AIDS management and incorporate these into management messages, and also address the risky practices which might increase the rate of HIV infection. Programmes for moral regeneration among the youth, delayed sexual début and non- and low risky sexual practices, including safe male circumcisions, should be encouraged. The key point is understanding the values, beliefs and cultural practices of the specific community. Problems such as the presence of “sugar daddies” on campus, older men from the local community and “sex with virgins or people with disabilities for cleansing PLWA from HIV” should also be addressed.

### *HIV/AIDS research*

HIV/AIDS research forms the basis of offering relevant and effective programmes in combating HIV/AIDS. A university should engage in continuous institutional and community-based research. The HIV/AIDS management plan’s research component should be linked to the HIV/AIDS unit to ensure that any interventions are evaluated continuously.

### *Integration of HIV/AIDS into the curriculum*

HIV/AIDS should form part of the curriculum starting from the foundation phase as some learners are born with HIV while others become infected later during their lives. For successful integration of HIV/AIDS into the curriculum, life orientation educators should be trained to teach learners contextual relevant information which impacts on HIV infections and prevention. Learners should be prepared to deal with the challenges of entering university for the first time and handling independency to prevent HIV infections during their first few months at university.

All university students should be formally taught about HIV/AIDS before they graduate. A stand-alone HIV/AIDS module could be offered awarding credits towards degrees after students had been involved in community-based HIV/AIDS work in relevant organisations. The module should cover basic HIV/AIDS information, HCT, prevention care and support, socioeconomic impact of HIV/AIDS, holistic approach to HIV/AIDS, gender and sexuality, and legal and ethical issues related to HIV/AIDS.

The dynamics are interrelated and lead to the proper implementation of the process for this model. A multidirectional arrow is used to connect the dynamics, indicating their reciprocal impact on each other.

### **The Process**

The process represents the action part or the procedure within the context of the development of a model (Stevens Barnum, 1994). The process for this model was adapted from Cronje et al. (1991) and comprises four phases: planning, organisation, leading and control, constituting the conceptual framework of this study. This approach addresses the challenges related to inadequate planning, improper organising, inadequate leading and inadequate control identified from this study and from the literature reviewed. The structure of the process is an interrelation of its elements.

#### *Planning*

The findings and literature review formed important elements of planning namely: identifying the need and purposes for planning, HIV/AIDS policy dynamics and implication, resources for managing HIV/AIDS, and programmes for managing HIV/AIDS.

*Identifying the need and purposes for planning*

The model requires addressing stigma and discrimination, ensuring privacy and confidentiality, and providing ART at the Campus Health clinic free of charge. There is a need for the consistent provision of nutritional support, strengthening counselling, care and support of PLWHA on campus and addressing the needs of the community which impact on the outcome of the university's HIV/AIDS programme. For the needs to be addressed properly, the issues of policies and policy dynamics need to be addressed.

*HIV/AIDS policy dynamics and implications*

The university's HIV/AIDS policy requires revision, involving the representatives of the agents and beneficiaries while considering their socioeconomic status and cultural practices. The policy should also embrace issues of HIV/AIDS in the neighbouring countries from where some staff members come. Such issues include addressing the challenges related to access to ART and continuity of treatment during school vacations and after graduation. The treatment should include involvement of traditional healers and address some social and cultural factors which might impact on HIV/AIDS management. The plan should entail formulating of the institutional vision and the mission encompassing HIV/AIDS management. The HIV/AIDS unit should have its vision aligned with the university's strategic vision.

The university's HIV/AIDS programme should have its own action plan aligned with the relevant context and the identified needs of the stakeholders. The action plan should have clear performance targets and performance indicators. For the realisation of policy and policy dynamics, resources need to be provided.

*Resources for managing HIV/AIDS*

Success of the model depends on the availability of physical, human and financial resources.

*Physical resources*

This model requires proper planning for infrastructure for managing HIV/AIDS. There should be proper accessible counselling rooms which ensure confidentiality as specified by Kisoona et al. (2002). There should be a board room for the peer educators' and PLWHAs' meetings, and a reception area where the waiting patients are given contextual information relevant to HIV/AIDS.

## Human resources

This model suggests proper human resource planning. The ratio of a counsellor to clients of 1:2 000 is inadequate. There should be different categories of university-employed agents for providing HIV/AIDS services, such as coordinators, health promoters, lay counsellors, and a doctor and a nurse for rendering the minimum required services to ensure sustainability of the service.

## Financial resources

The model requires the HIV/AIDS management budget to be integrated within the institutional budgeting processes, but controlled by the HIV/AIDS unit. This will ensure proper planning of HIV/AIDS activities based on the cost effectiveness and impact of the programme towards achieving the target of the model. The available resources will determine which programmes are implemented.

## *Programmes for managing HIV/AIDS*

Programmes should go beyond addressing issues of reducing the risk of HIV transmission, focusing on abstinence, faithfulness and condomising, but should also address some underlying socioeconomic and cultural factors which impact on HIV/AIDS. Contextually relevant programmes will assist in expelling the myths and increasing commitment to the identified programmes. Opinion leaders in the community should be involved as they are more influential in the lives of people in the rural community than the university as such. Programmes should be designed as part of beneficiaries' living routine or leisure activities, such as intertwining prevention strategies around traditional song, dance, sports and other activities. Addressing the need for food, clothing and shelter, through initiation and supporting of income generating projects might be a priority, to avoid people engaging in risky behaviour in order to provide for their own or their families' basic needs.

## ***Organising***

The following organising aspects are important: the location of the HIV/AIDS unit, an organogram for HIV/AIDS management, the coordination of the activities, and partnership with other stakeholders.

### *Location of HIV/AIDS unit*

The HIV/AIDS unit should be an independent university section or a directorate, which is visible and accessible by all directorates and schools in the university. \

### *Organogram for HIV/AIDS management*

The HIV/AIDS coordinator should report directly to the Vice Chancellor of the institution, and serve in the university management committee in order to be able to interact directly with other departments such as research, community engagement and other academic and administration sectors and student support services.

### *The coordination of the activities*

The HIV/AIDS coordinator should be responsible only for planning, organising, leading and controlling the HIV/AIDS programmes, instead of being involved in day to day activities. The coordinator should be responsible for the liaison of HIV/AIDS programmes in all the departments in the university and the community representatives and with other universities to ensure the quality of HIV/AIDS programme. Proper organising is realised through quality leadership.

### *Leading*

Universities have the responsibility to provide intellectual leadership and thus produce informed and empowered individuals in communities, as well as in the country as a whole. Leadership is required at different levels of HIV/AIDS management on campus, namely at the level of students, staff, management, and the community at large.

Students and student leadership organisations, such as the Student Representative Council, need to be mobilised to become part of the response against HIV/AIDS. The model must be inclusive of the potential role that may be played by all members of the higher education community. Leadership in HIV/AIDS management involves support and supervision of the agents.

Leadership involvement in major HIV/AIDS events makes the agents feel supported and enhances the beneficiaries' participation in the programmes. Support should include provision of debriefing opportunities for people rendering HIV/AIDS services in the university, to prevent stress and burnout.

### *Control*

Control for this model is done in three phases namely, pre-control, concurrent control and post-control.

### *Pre-control*

Situational analyses for the context, the needs for stakeholders, available resources and programmes need to be assessed in order to determine the whole

process of HIV/AIDS management. Documentation of each step to be followed needs to be done, specifying exactly what needs to be achieved, by whom, when and how. This forms the yardstick for the whole programme implementation and the basis for concurrent control.

### *Concurrent control*

Concurrent control is the process of monitoring what needs to be done throughout the implementation of the programme. This may be achieved through having frequent meetings with different stakeholders to discuss the process, requesting the beneficiaries to give feedback regarding the quality of the service, requesting the agent to document their challenges and success monthly, utilising the suggestion box to give comments regarding the services, and documenting the trend of practices which impact on HIV/AIDS. Correction measures need to be taken timeously in order to bring the programme back on track or change the plan depending on the challenges experienced or successes achieved.

### *Post-control*

This is an evaluation which is done at the end of the programme to check whether the set objectives and the expected outcomes have been achieved. The current situation needs to be compared with the initial situation identified during the pre-control phase. Findings from evaluations should form the basis for planning for future programmes. The stakeholders need to be involved in all stages of control.

## **The Outcome**

The purpose of this management model is to provide a public management perspective that should direct the effective HIV/AIDS management in rural-based universities of South Africa. This outcome has two interrelated dimensions: the reduction of HIV infection rates and an improved quality of life for PLWHA. An improved quality of life for PLWHA means that more resources can be focused towards preventing new HIV infections. Improved quality of life for people living with HIV/AIDS contributes to further reduction in new HIV infections as the spread of HIV infection is dependent on the lifestyle and the viral load of PLWHA.

## **Evaluation, refinement and verification of the model**

The model was subjected to evaluation and critique, guided by Chin and Kramer's (1991) criteria for model evaluation namely simplicity, clarity, scope, accessibility and importance.

## **Application of the model for HIV/AIDS management in South African rural-based universities and organisations**

The model can be utilised in rural-based higher education institutions in South Africa and other sub-Saharan African countries, governmental structures involved in the HIV/AIDS management such as schools, clinics, hospitals, prisons, police stations and non-governmental structures, and non-profit making organisations involved in managing HIV/AIDS.

### *Measures to ensure trustworthiness*

To establish the trustworthiness of model development process in all phases, the model has been presented during several conferences such as the Higher Education HIV/AIDS (Mavhandu-Mudzusi & Netshandama, 2010) and Social Aspects of HIV/AIDS Research Alliance (Mavhandu-Mudzusi & Netshandama, 2011).

Colleagues who are experts in model development were requested to review the model. The model was further evaluated by using Chin and Kramer's (1991) critical reflection guide and criteria for model evaluation which include simplicity of the model, clarity of the model, scope covered by the model, accessibility of the model, importance of the model, and results confirmed the validity of the model.

## **Conclusion**

The implementation of this model will ensure that the needs of the stakeholders in the rural-based university and the community are met through direct involvement in addressing HIV/AIDS. This will ensure buy-in and ownership of the programme by the stakeholders. This may contribute to behaviour change which is lacking in other approaches of managing HIV/AIDS using nationally designed programmes, which are not specific and relevant to addressing the context of the rural-based university and its stakeholders.

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