



## HIV and AIDS in Rustenburg, South Africa: Trends, Risk Behaviors and Some Lessons

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**ABSTRACT** This is a confirmatory case study on HIV and AIDS prevalence in Rustenburg Local Municipal (RLM) in South Africa's North West Province. Quantitative data was collected using a self-administered questionnaire. Random stratified sampling method was used to select respondents for the study. Risk factor and behaviour data was collected using the same instrument. The results confirmed that HIV prevalence in the municipality was 11 percent which conformed to national levels. Thirty-six percent of those that who tested HIV positive were males and sixty-four percent females. Risk factor analysis indicated that on average 8.4 percent of the respondents were at risk of contracting HIV. The researcher used these findings to draw lessons for sub-Saharan countries, the main ones being that game changers need to be implemented in a structural format and conclude that 'throwing money at the problem' will not work as long as hindrances to a structural approach to HIV and AIDS such as culturally harmful practises remain unresolved.

### INTRODUCTION

Since the first case of the Human Immuno-deficiency Virus (HIV) was recognised in the United States of America in 1981 (Satcher 2007), HIV has spread rapidly throughout the world. However, its impact has been felt most in Africa, specifically Sub-Saharan Africa (SSA) (Dean and Jamison 2006). Statistics from the Joint United Nations Programme on HIV and AIDS (UNAIDS) and the World Health Organization (WHO) show that the number of People Living with HIV and AIDS (PLWHAs) peaked at 38.6 million in 2005 (UNAIDS 2010). At the end of 2009, the Joint UNAIDS estimated that 22.5 adults and children in Sub-Saharan Africa were living with HIV (ibid). This accounts for sixty-eight percent of the global total. The largest epidemics are seen in South Africa, Botswana, Zimbabwe and Swaziland (Essex 2002; Stock 2012). According to UNAIDS, in 2011 there were 1.7 million AIDS related deaths compared to 2.5 million deaths in 2005 with the figure dipping to 1.1 million deaths in 2015 (Grulich et al. 2015: 2). This decline can be attributed to concerted efforts by stakeholders to reduce HIV related deaths (Linda and Richter 2004). However, it is noted that despite the reduction in new infections, the prevalence rate remains unacceptably and sustainably high in SSA for reasons that the researcher seeks to unpack in

this paper using the case study of Rustenburg Local Municipality (hereinafter Rustenburg).

The researcher did fieldwork in the North West province of South Africa, specifically, Rustenburg to ascertain *inter alia*, the HIV prevalence in the municipality as a case study to ascertain national indications. The choices of the North West province and Rustenburg were conveniently made. The findings were not peculiar as they fitted into the national patterns in which the prevalence was 12.2 percent in 2016 (Statistics South Africa 2016). Current reports by Statistics South Africa indicate that the HIV prevalence in South Africa as of 2016 was at 12.7 percent (Statistics South Africa 2016: 1). This is almost the same rate as when the researcher did the fieldwork in 2012. This implies that HIV prevalence in South Africa has stagnated at around 12 percent. This situation therefore calls for a new thinking designed to address this stagnation. Most importantly for entities like local authorities, they have to decide whether to adopt policies to lower the prevalence rate below 12 percent or to stop it from growing beyond a certain threshold like 13 percent. Of course this threshold needs scientific, practical and operational justifications and need not be arbitrary. This paper ends by making specific recommendations aimed at reducing the HIV prevalence in

South Africa and drawing lessons from South Africa for SSA.

### Study Objectives

The objectives of the study were to estimate HIV prevalence in Rustenburg and in the process to also determine the knowledge, attitudes and practise towards HIV and AIDS. Other objectives that the researcher set out to fulfil were to determine knowledge about HIV and AIDS, HIV prevention methods and exposure to HIV. This paper therefore aims to discuss and contextualise HIV prevalence in South Africa. The researcher's main objective was to account for the results of the study wherein the rate of HIV prevalence in South Africa has been hovering around the 12 percent mark since 2010. The researcher also endeavoured to account for the increase in the HIV positive population in South Africa which rose from 4.72 million in 2002 to 7.03 million in 2016 (Statistics South Africa 2016: 7). Lastly, the study draws some lessons from South Africa on how to reduce the prevalence below the 12 percent mark.

### Research Questions

In undertaking the study, the researcher intended to answer the following questions: firstly, using the case study of Rustenburg, what is the estimated prevalence of HIV in the North West Province of South Africa? This research question was meant to benchmark HIV prevalence in the municipality with provincial, national and regional figures. Secondly, the researcher aimed to ascertain the general health status of the municipality employees. The researcher did this in order to foreground the source of information about HIV and AIDS for the municipality. This way, local authorities will be in a position to allocate resources towards those channels of information that yield more results. Basic as it may appear, the researcher also endeavoured to test the respondents' knowledge about how HIV is transmitted. Given the consistent national HIV prevalence figures of 12 percent, the researcher endeavoured to ascertain the attitude of the respondents towards HIV and AIDS. This way, the researcher managed to address another objective which was to identify the HIV risk factors in the municipality. The central research question was: what lessons can be

drawn from past initiatives in order for South Africa to reduce the HIV prevalence rate to below the 12 percent mark at which it has stagnated?

### METHODOLOGY

In undertaking the confirmatory case study of HIV prevalence in Rustenburg, quantitative data was collected using the rapid oral swab HIV test kit. A self-administered questionnaire was used to collect both qualitative and quantitative data. The target sample was 160 respondents of which 201 were reached and responded. Respondents were briefed about the general objectives of the research and were advised not to write their names on the questionnaire in order to ensure confidentiality. Those who volunteered for the rapid HIV test were given consent forms to sign before commencing the pre-test counselling sessions. The target was ten percent of the sample which was equivalent to 160 respondents. Random stratified sampling method was used to select the respondents for both the HIV prevalence estimation and the self-administered questionnaires. The research component of the study was accomplished with the use of a self-administered questionnaire which consisted of nine sections. The self-administered questionnaire used for the study was adopted from the World Health Organisation (WHO 2004) with further input from a similar survey done in Cape Town by Kalichman in 2003 (Kalichman 2003). It was adapted to suit South African culture, customs and practises (Government of South Africa 2010).

#### Oral Rapid HIV Antibody Test

The OraQuick Rapid HIV 1/2 Antibody Test Kit was used for the Voluntary Counselling and Testing (VCT). As with the self-administered questionnaire, participation in the VCT was voluntary. The target was 160 respondents which was exceeded as 201 respondents participated. In order to ensure confidentiality, secured rooms were used for conducting both the HIV counselling and testing sessions.

#### Data Management and Analysis

Qualitative data was inputted into Microsoft Excel which was used to generate the tables which were then used to analyse the data. Thematic data analysis was used to analyse data collected from the self-administered questionnaires.

## RESULTS

### Demographic Data

While 160 respondents were targeted, a total of 201 ended up participating in the survey, of whom 94 (46.8%) were male and 107 (52.2%) were female. Most of the respondents were single (58.2%), while 46.3 percent were married, 6.5 percent were widowed and 1.2 percent were cohabitating. Most of the respondents who participated in the survey were aged between 31 and 40 (31%).

### HIV Prevalence Estimation

In terms of knowledge about their HIV status, 62.7 percent of the respondents knew their HIV status, 32.3 percent did not know while 5 percent did not respond. Of those that knew their HIV status, 87.3 percent indicated they knew that they were HIV negative while 12.7 percent indicated that they suspected or knew that they were HIV positive.

Of the 201 respondents tested for HIV of which 52.7 percent were males while 47.3 percent were females, 179 (89%) were HIV positive while 22 (11%) were HIV negative. Of those that tested positive sixty-four percent already knew about their status while thirty-six percent learnt for the first time from the test conducted by the researcher during the process of gathering data for this research. Of the 22 respondents that tested negative, 14 (64%) were females and 8 (36%) were males.

### Health Status

More than eighty percent of the respondents reported that they were not having any major health challenges with their health with 23.9 percent reporting that their health was excellent, 29.4 percent very good, 31.3 percent good, 12.9 percent fair and 2.5 percent poor.

While respondents were generally healthy 6.5 percent of them had suffered from tuberculosis in the preceding three years. What we did not ascertain was whether those who had suffered from tuberculosis were also HIV positive. Such a causal investigation could have been efficacious in a drawing more nuanced recommendations and lessons.

### Knowledge about HIV Transmission

Most of the respondents had the correct knowledge about how HIV is transmitted. However more information is required to keep the respondents up to date with new developments and trend regarding the pandemic. Given the extent of HIV related knowledge, it is worrying that on average, as indicated by the Table 1, 10 percent of respondents got some of the questions relating to HIV and AIDS wrong. This percentage almost corresponds to the percentage of HIV positive respondents. This statistic confirms the direct causality between HIV and AIDS ignorance and risk of infection.

**Table 1: Knowledge about HIV transmission**

| <i>Knowledge about HIV</i>              | <i>Correct response (%)</i> | <i>Wrong response (%)</i> |
|-----------------------------------------|-----------------------------|---------------------------|
| Sharing tools with an infected person   | 89.6                        | 10.5                      |
| Sharing goof with an infected person    | 87.1                        | 12.9                      |
| Shaking hands with an infected person   | 82.6                        | 17.4                      |
| Mosquito bites                          | 87.1                        | 12.9                      |
| Having oral sex with an infected person | 75.1                        | 24.9                      |
| Mother to child transmission            | 85.1                        | 14.9                      |
| Sharing needles among drug users        | 87.6                        | 12.4                      |
| Unprotected sex                         | 90.1                        | 10                        |

### AIDS Prevention Method Used by Respondents

The most popular method of HIV prevention used by respondents was being faithful to one partner (34%) followed by use of condoms (24%). However a high number of respondents (28%) did not respond to this question. This was interpreted by as indicative of risky sexual behaviour.

### Use of Condoms When Involved in Concurrent Multiple Sexual Affairs

One of the prevalent risky behaviors in South Africa is concurrent multiple sexual relationships. It was therefore imperative to ascertain the risk behaviour in such relationships. It was noted that only 48 percent of the respondents reported that they always used condoms when engaged in multiple sexual relationships (Table

2). A further 21 percent did not respond to this specific question. Then there was the six percent who stated that they used condoms sometimes but not always. Putting the total of the respondents in multiple sexual relationships who do not use condoms consistently shows that the majority of respondents (52%) were engaged in risky sexual behaviour. It is the researcher's view that it is these respondents who engage in such a risky sexual behaviors who are responsible for sustaining the prevalence rate at 12 percent.

**Table 2: Frequency of use of condoms in concurrent sexual relationships**

| Condom usage | Percentage (%) |
|--------------|----------------|
| Always       | 48             |
| Never        | 25             |
| No response  | 21             |
| Sometimes    | 6              |
| Total        | 100            |

### Risk Factor Analysis

On an average, 8.4 percent of the respondents were at risk of contracting HIV. As indicated in Table 3 12.4 percent of the respondents used needles to inject drugs not prescribed by a professional health care worker. While these respondents did not disclose the type of drugs they took, the researchers had unconfirmed reports that such respondents were taking unspecified illegal injectable drugs and *dagga*, also known as marijuana. The researcher found out that 5 percent of the respondents contracted at least one sexually transmitted infection in the five years preceding the fieldwork. More worry-

ingly is that 7.5 percent who reported having unprotected sex with multiple partners. This calls for concerted efforts aimed at behaviour change especially when the survey indicated that 9.5 percent of the respondents engaged in transactional sexual intercourse.

### Care and Support

Regarding the provision of care and support to those infected and affected by HIV, 72.6 percent reported that they were satisfied with the quality of health care in view of their HIV status. In terms of access to quality care, 79.6 percent of the respondents were satisfied with their access to health while 68.2 percent were satisfied with the care and support that they were receiving from the various stakeholders. Attention must be paid to the 19.4 percent of the respondents who indicated that they were not happy with the quality of care and service. Additionally, the 2.4 percent who did not respond can be construed not to be happy with the quality of health care serviced delivery. Put together, the percentage of respondents who indicated that they were not happy and those who did not respond add up to a worrying 22 percent. Stated differently, almost one fifth of the respondents were not satisfied with the quality of health care service delivery in South Africa. This attests to the futility of 'throwing money at the problem' as a default solution to health care and other related challenges.

### DISCUSSION

The results tabled in this paper depict a picture which is representative of the national pic-

**Table 3: Risk factor analysis**

| Scenario                                                                                                     | Frequency | %    |
|--------------------------------------------------------------------------------------------------------------|-----------|------|
| I have had sex with someone of the same sex with me                                                          | 19        | 9.5  |
| I used needles to inject heroin, cocaine, steroids or any other drug that was not prescribed by a doctor.    | 25        | 12.4 |
| I had a blood transfusion in the last 5 years.                                                               | 16        | 8    |
| I had an organ or tissue transplant in the last 5 years.                                                     | 7         | 3.5  |
| I had an artificial insemination in the last 5 years.                                                        | 4         | 2    |
| I had a sexually transmitted disease, such as Chlamydia, gonorrhoea, herpes or syphilis in the last 5 years. | 10        | 5    |
| In the last 5 years I have traded money, drugs or gifts for sex.                                             | 19        | 9.5  |
| In the last 5 years I have used marijuana, crack, and cocaine or crystal meth.                               | 11        | 5.5  |
| In the last year I had more than one sex partner.                                                            | 43        | 21.4 |
| I am having unprotected sex with multiple partners.                                                          | 15        | 7.5  |

ture in South Africa. These are; that HIV prevalence was 12 percent of which 36 percent were males and 64 percent females; the majority of those who are positive also know their status (62.67%), risk factor analysis indicated that on average 8 percent of the respondents were at risk of contracting HIV with 21 percent reporting that they have had more than one sexual partner, 7.5 percent were having unprotected sex with multiple partners and 61 percent of the respondents were satisfied with the care and support that the various stakeholders gave them.

The main discussion point is that HIV prevalence in South Africa stagnated at 12 percent from around 2002 to 2016 (Statistics SA 2016: 6). The total number of persons living with HIV also increased from 4.72 million in 2002 to 7.03 million in 2016 (Statistics SA 2016: 6). Despite all the interventions and programmes, why then is the number of HIV positive people increasing in South Africa? Most importantly, why has the percentage of HIV prevalence stagnated at the 12 percent threshold? This threshold needs to be understood in terms of individual risk factors; hence a structured bottom up targeted intervention is advocated for. There is need to reformulate mitigatory interventions for resilient risky behaviours such as having multiple sexual partnerships, of which 8 percent of the respondents indicated that they were having multiple unprotected sexual relationships.

Evidently, the problem in South Africa is not shortage of key resources such as condoms. According to UNAIDS, "South Africa built the world's largest condom programme in just a few years and doubled the amount of condoms distributed per male, per year in at least seven of nine provinces" (UNAIDS 2016: 9), then if prevention is taken so seriously why is the rate stagnating at 12 percent? The researcher proposes three reasons; harmful traditional belief systems and practises, less attention on interventions that empower females in an otherwise patriarchal society and what can be termed throwing money at the problem as the government's preferred solution to major problems bedevilling South Africa.

South Africans have various traditional belief systems some of which need to be rethought. A prime example of these harmful traditional practises is *ukutwala*, literally meaning to take. The practise entails the abduction of girls and forcing them into marrying their abductors, often

with the uncontested consent of the parents (Mwambene and Kruuse 2017; Smith 2017). Coupled with the unfounded belief that having sex with a virgin cures HIV (Rohleder 2016), infected men abduct girls resulting in both marriage and infection, thereby driving infection rates among females to over 60 percent of the HIV positive population in South Africa. Anderson (2015) discussed the tradition of wife inheritance as one of the harmful cultural practises which sustains HIV prevalence rates as high as 12 percent in South Africa. In this practise a wife is inherited by mostly the cousin or brother of the deceased. This practise contributed to the sustenance of high prevalence rates in that it brings at least three people into sexual conduct, most of it unprotected. These three are the deceased brother, the inheriting brother and the inherited wife. The circle grows bigger in cases where the inheriting brother is already married, worse if he is already in a polygamous marriage or having concurrent sexual partners popularly known as *nyatsi* or *makwapeni*, meaning an illicit sexual partner.

At another level, the researcher's key informants alluded to a dearth of attention on interventions that empower females in an otherwise patriarchal society. The vulnerability of women to male dominance and masculinity was evident as female key informants narrated how they are powerless in sexual relationships. A sense of hopelessness was detected and a plea for the government and other stakeholders such as non-governmental organisations to empower these women was made. Some of the empowerment initiatives suggested ranged from setting women on a path for economic independence.

What can be termed throwing money at the problem as the government's preferred solution to major problems bedevilling South Africa was fingered as being part of the problem. The fact that almost one fifth of the respondents were not satisfied with the quality of health care delivery in South Africa is indicative of the need to improve health care service delivery in South Africa.

Early sexual debut and inconsistent condom use was noted as one of the resilient risk behaviours. Programmes such as the game changer were initiated to mitigate against the aforementioned risk factors. However, change is needed to address what we can term the normalisation

of HIV and how to address it. The researcher noted that contracting HIV was now viewed lightly and socially acceptable, mainly owing to advances in medicine and the availability of free antiretroviral treatment. This is a typical case of when advances in technology, lifestyle and medicine can have a negative impact on the problem that it is meant to address. Such negative externalities are yet to be fully addressed in scholarship and the researcher leaves it to others to explore.

### Lessons Learnt

Evidence based targeted interventions proved to be instrumental in reducing the HIV relevance rate in South Africa to the current 12 percent threshold. The stagnation of the prevalence rate is evidence for the need of a fresh approach which builds on the gains of the previous interventions. The current paradigms of 'game changers', is still nascent to evaluate. Anecdotal evidence however shows that it lacks the 'vibe and vigour' which made previous programs reduce prevalence to the current rates. One reason for this, which has nothing to do with the efficacy of game changers could be stakeholder fatigue. If 'people are tired of hearing about HIV', then it is time to develop programs that reduce the fatigue and rejuvenate stakeholder enthusiasm in HIV and AIDS related programs.

Another key lesson from South Africa relates to the causal link between national events and programs such as HIV prevention, care and treatment. If the general national mood is dull and subdued due to political developments, it rubs on to the economy and generally reduces productivity. The lesson to be learnt is that in such circumstances, the ideal option is to manage the situation by continuing to use the programs which reduced the prevalence and incrementally blending them with new initiatives which targets negative national events such as corruption.

The need to have continuous interventions that empower women and girl in an otherwise patriarchal society cannot be over emphasised. The fact that the prevalence ratio is 2:3 against women and girls attests to the need to develop more interventions that empower women while simultaneously addressing the male side of the problem, the side where power currently resides.

The various traditional belief systems which most South Africans subscribe to need not just

to be rethought, but they need to evolve so that they remain relevant and unharmed especially to the most vulnerable. Both male and female passage rites practised by most of South Africa's indigenous people<sup>1</sup> have varying degrees of exposure to HIV and other behaviors which put the initiates at risk of contracting HIV. One of them is the wrong belief that once circumcised, men will no longer contract HIV (Scott et al. 2005). Working together with traditional authorities, initiation schools and traditional opinion makers is recommended as a way of strengthening health systems from the bottom going upwards.

Active citizenry is also advocated as a lesson learnt. Citizens need to reclaim their agency and view HIV as their problem and hence as a Community challenge to be solved by themselves as opposed to viewing HIV as a problem to be solved by the government. Communities must stop blaming the government and expecting the government to do all for them while they play victim and recipient. This is not to minimise community challenges such as poverty and inequality which is a well-documented problem in South Africa. Lessons from India and Limpopo Province indicated that where communities put grassroots structures such as Community Based Monitoring Teams, active citizenry resulted in more accountability on both the patient/community side and the state/health care delivery system side.

### CONCLUSION

The paper sought to confirm the HIV prevalence rate in South Africa using the case study of Rustenburg Local Municipality which is in the North West Province. It was found out that the rate was indeed confirmatory of the national prevalence rate. The study also sought to account for the stagnation of the prevalence rate at 12 percent. Reasons for the stagnation were both systemic and cultural. These included resilient risky behaviours such as having multiple sexual partnerships, harmful traditional belief systems and practises and paying less attention on interventions that empower females.

### RECOMMENDATIONS

The stagnation of the HIV rate not only in Rustenburg Local Municipality but in South Africa in general calls for even more coordinat-

ed efforts across the sectors. The first recommendation is for the various stakeholders and service providers to synchronise their efforts to fight HIV and AIDS with all other stakeholders to include faith based organisations and traditional authorities.

Another recommendation has to do with the need to return to the basic of HIV prevention. The ABCs need to be revived, made contemporary and broadcast again. Social media can become efficacious in spreading various ABC based messages. There is need to do more work in collaboration with the various traditional authorities. There are a lot of synergies that can be shared between the modern and the traditional wherein the traditional in South Africa has easy access to the people and the modern has the resources. Events such as the National AIDS Day need to be conceptualised, executed and evaluated from below with the traditional authorities as the driving force, obviously being capacitated by the traditional National AIDS Day stakeholders. The two spheres need to complement each other more.

In term of targeting the youth especially those still in school, the Life Orientation syllabus needs to be re-evaluated and revamped so that it empowers the learners more than what is currently ensuring. A case in point would be to have practical sessions as part of the syllabus where learners visit orphanages, hospitals and HIV clinics to have first-hand experience of what they read in the text books and learn at school.

### LIMITATIONS

The main limitation of the paper is typical for studies of this nature, that is, the single confirmatory case study approach. In this case, an alternative case study methodology would have been the *configurative-idiographic method*. This method uses an interpretivist orientation which could be argued to have benefits for studies like the one undertaken here. Since the researcher sought to confirm, infirm, and draw lessons, the researcher therefore used the confirmatory case study as the *configurative-idiographic method* is more suited for a nuanced understanding of a single case and also for understand the dynamics of such as case with no intentions to confirm or predict the antecedents of a general phenomenon which in this case was the stagnation of the HIV prevalence in South Africa at 12 percent since 2002.

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### NOTE

1. There are many rites of passage practiced by the various indigenous peoples of South Africa. These include but are not limited to the following: Vhusha and Murundu by the Venda people, Ulwaluko and Intonjane for the Xhosa people. Other peoples such as the Tsonga, Tswana, Ndebele, Zulu and the Sipeedi have their own rites of passage. For a more nuanced analysis of these rites of passage, see for example Robins (2006), Kang'ethe and Nomngcoyiya (2016).

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