

Our Children Our Future From Vision to Innovative Impact Community Responses to Orphans and Vulnerable Children

Behavioural Risks and HIV Sero-Status Household Survey in the Klerksdorp District of South Africa

A Baseline Study

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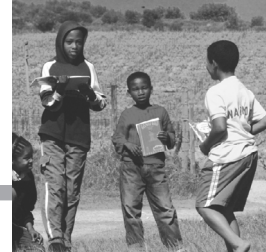
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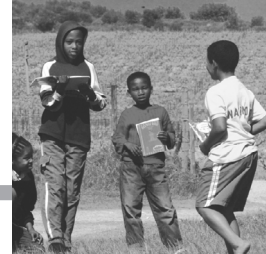
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FOREWORD



In spite of aggressive HIV prevention efforts carried out consistently over the last 10 to 15 years in southern African countries, the HIV/AIDS problem continues to grow unabated. Many countries in the region such as Botswana, Lesotho, Swaziland, Zambia and Zimbabwe have among the highest HIV prevalence rates in the world, while South Africa has the highest number of people living with HIV/AIDS in the world. This puts countries most heavily burdened by HIV/AIDS at the southernmost tip of Africa. Until recently, most of the HIV surveillance information in many countries emanated from antenatal clinic (ANC) sentinel site surveys conducted annually or biennially among pregnant women, which not only provided biased estimates but, more importantly, did not provide any additional behavioural information about what might be driving the HIV epidemic in a given country. During the past few years, the use of the second-generation surveillance approach in population- or household-based surveys, which provides for simultaneous collection of biological and behavioural data from participants, has provided both more accurate and useful data for planning national responses to the HIV epidemic. The population-based surveys, which rely on the use of nationally representative samples, have enabled ANC data to be benchmarked and therefore also enable more accurate estimates of the prevalence rates to be determined by going back to the start of ANC sentinel site surveys in any given country.

While the amount and quality of HIV prevalence and behavioural risk information at national, provincial and regional levels in most countries has improved tremendously, there is still a dearth of similar information available to planners at district or sub-district level. This situation is true in most countries. One of the few exceptions is Botswana. In the recently completed Botswana AIDS Impact Survey (BAIS) II (2005), samples were drawn from each district as well as nationally. In countries with large populations, such as South Africa, which has as many as 54 districts, no reliable HIV prevalence and behavioural risks data are available at district level. Therefore, studies like the present one essentially represent pioneering work that will, it is hoped, lead to a better understanding of the magnitude of the HIV/AIDS problem on a more local level, as well as the underlying behavioural factors that are driving it. This study, together with two others in one district each of Botswana and Zimbabwe, form part of the series of the W.K. Kellogg Foundation's Orphans and Vulnerable Children (OVC) Care Interventions Project. It is hoped that these studies will lead to a better understanding the HIV/AIDS problem in the three districts concerned, as well as provide baseline information that will be useful for determining the effectiveness of HIV/AIDS interventions to be implemented during the coming year in the three districts concerned.

Professor Leickness C. Simbayi, DPhil
Principal Investigator, Research



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We also would like to thank the officials of the North-West Province, especially those working at Klerksdorp District Municipality level in the various government departments – Health, Social Development, Education and Home Affairs – as well as the local government councillors with the Klerksdorp City Council, officials and community leaders for their excellent support.

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Data capture was outsourced and managed by a team from the Surveys, Analyses, Modelling and Mapping (SAMM) unit of the HSRC under the leadership of Monica Peret. We would especially like to thank them for the quality control checks they did on the data.

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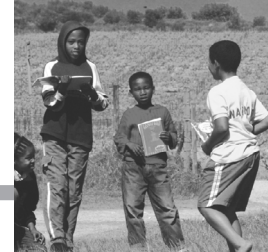
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Finally, we extend our gratitude to the people living in the City of Klerksdorp who voluntarily accepted to participate in this study. Clearly, without them this study would not have been possible. It is our sincere hope that they will use the valuable information contained in this report to prevent and control the further spread of the disease.

Professor Leickness C. Simbayi, DPhil
Principal Investigator

ABBREVIATIONS



AIDS	Acquired Immune Deficiency Syndrome
ANC	antenatal clinic
ARV	antiretroviral
BSS	Behavioural Risks and Sero-Status Survey
CI	confidence interval
CLS	Contract Laboratory Services
DU	dwelling unit
EA	enumerator area
FBO	faith-based organisation
FHI	Family Health International
GIS	Geographical Information System
HBCP	home-based care programmes
HIV	Human Immunodeficiency Syndrome
HSRC	Human Sciences Research Council
KABP	knowledge, attitudes, beliefs and practices
KOSH	Klerksdorp, Orkney, Stillfontein and Hartbeesfontein
MRC	Medical Research Council
NMF	The Nelson Mandela Foundation
OVC	orphans and vulnerable children
PLWHA	people living with HIV/AIDS
PMTCT	prevention of mother-to-child transmission
PSU	primary sampling unit
SA	South Africa
SAMM	Surveys, Analyses, Modelling and Mapping
SD	standard deviation
SOP	standard operating procedure
SPSS	Survey Analysis Software
SSU	secondary sampling unit
StatsSA	Statistics South Africa
STI	sexually transmitted infections
TB	Tuberculosis
UNAIDS	Joint United Nations Programme on HIV/AIDS
VCT	voluntary counselling and testing
WHO	World Health Organisation
WKKF	W.K. Kellogg Foundation



EXECUTIVE SUMMARY

Introduction

With an estimated HIV prevalence of 11.4% in the general population in 2002 (Shisana & Simbayi 2002; Rehle & Shisana 2003), there was an estimated 5.3 million people living with HIV/AIDS at the end of 2002 (Shisana & Simbayi 2002; Rehle & Shisana 2003; UNAIDS 2004). This figure indicates that South Africa has more people living with HIV/AIDS than any other country in the world. Indeed similar data are available at provincial level, with prevalence ranging from 6.6% in the Eastern Cape to 14.7% in the Free State Province. The highest number of people living with HIV/AIDS (PLWHA) – just below 1 million – are found in KwaZulu-Natal and the fewest – about 70 000 – in the Northern Cape (Shisana & Simbayi 2002). The increased morbidity and premature death of young parents has resulted in a growing number of OVCs in many parts of South Africa. The W.K. Kellogg Foundation (WKKF) awarded a grant to the Human Sciences Research Council (HSRC) to implement a project to mitigate the impact on HIV/AIDS among OVC in Botswana, South Africa and Zimbabwe.

The overall goals of the project are to:

- Improve the social conditions, health, development and quality of life of vulnerable children and orphans;
- Support families and households coping with an increased burden of care for affected and vulnerable children;
- Strengthen community-based support systems as an indirect means of assisting vulnerable children;
- Build capacity in community-based systems for sustaining care and support to vulnerable children and households, over the long term.

The specific objectives of the overall project are to develop, implement and evaluate some longstanding and/or recently established OVC intervention programmes that address the following issues:

- Home-based child-centred health, development, education and support;
- Family and household support;
- Strengthening community-support systems;
- Building HIV/AIDS awareness, advocacy and policy to benefit OVC.

In order to implement the last objective, the present study was conducted to provide some baseline evidence-based reports on best practices regarding HIV/AIDS awareness, advocacy and policy-support programmes for the benefit of vulnerable children, families and communities. In each of the participating countries, one district or municipality was identified as a research site. In South Africa, the City of Klerksdorp in the North-West Province was chosen for this purpose. A behavioural risks and sero-status (BSS) baseline survey was conducted with the following aims in mind:

- To determine knowledge, attitudes, beliefs and practices (KABP) with regards to HIV/AIDS;
- To ascertain prevention issues and care programmes as well as human rights concerns associated with HIV/AIDS;
- To quantify the magnitude of the HIV/AIDS problem in the local site, especially among the children.

The main goal of the BSS was to identify priorities or gaps for HIV/AIDS awareness, advocacy and policy-support intervention programmes that would be developed and implemented in the site to prevent the spread of HIV/AIDS, particularly among OVC.

Methods

Conceptual framework

The conceptual framework that informs this study is the second-generation surveillance system designed by the UNAIDS and World Health Organisation (UNAIDS/WHO 2000) and Family Health International (2000). This framework is based on surveys of KABP in relation to sexual behaviours and is combined with antibody testing for HIV infection (for additional details, see Shisana & Simbayi 2002). Apart from establishing prevalence and behavioural risks for HIV infection separately, associations between the two issues can be investigated, leading to a better understanding of the epidemiology of an epidemic under study.

Survey design and sampling

A cross-sectional survey design was used. This study design is widely acknowledged as the most appropriate for studying HIV prevalence in the general population. It is most useful as a baseline for future evaluation studies.

A multi-stage cluster probability sample of respondents in their homes was used in the study. The whole population of the City of Klerksdorp (Klerksdorp, Orkney, Stillfontein and Hartbeesfontein – KOSH) was stratified both explicitly and implicitly. Explicit strata were geographical location (urban formal versus urban informal) and within urban formal areas of residence according to the majority of the race living in the area (i.e., white versus African). Implicit stratification using a combination of demographic variables was used. The primary sampling unit (PSU) was the enumerator area (EA). The number of respondents selected in the site was approximately 2 652: 1 330 adults aged 25 years and above, 549 youth aged 15–24 years, 242 older children aged 12–14 years and 531 younger children aged 2–11 years.

Within the entire City of Klerksdorp, 75 EAs were selected. In each selected EA a systematic sample of a maximum of 31 households ('visiting points') were identified, which yielded 1 628 households in total. Having identified the geographic location of the EA in the field, each 'visiting point' in the EA was counted. A visiting point could be defined as a stand, physical address, a flat in a block of flats, a shack, or a bed in a hostel. In each household, four individuals were randomly selected, using Kish's Grid¹ after initial household listing only in households where the head agreed to members participating.

We randomly sampled four individuals 2 years and older from each chosen household as follows: an adult (25 years and above), youth (15–24 years of age), older child (12–14 years) and young child (2–11 years). It was expected that the two sexes would be equally represented in the four sub-samples from the site.

Procedure

After obtaining relevant permission from local authorities in the Klerksdorp City Council, District Health officials, as well as community leaders in various sections of the KOSH Municipality, a team of 2 HSRC researchers, one fieldwork coordinator, 3 enumerator supervisors, 30 young enumerators, and 37 recently retired nurses (6 supervisors and 31 fieldworkers) received training over five days in Klerksdorp on conducting interviews and collecting specimens for HIV-antibody testing, as well as on other relevant issues including research ethics and community entry procedures, using Kish's Grid for randomly selecting

1 The Kish Grid system ensures that the household member to be interviewed is selected entirely randomly and has an equal chance of being interviewed.

participants in each group if appropriate. The enumerators and nurses were drawn from all races, as the project was conducted mostly in white and African neighbourhoods. The researchers collected data in two phases. Phase 1, which was done by the enumerators, consisted of notification of heads of households about the study and seeking permission from them to undertake the study on members of their household. Once permission was granted, a listing of all members of the household was undertaken using a Visiting Point Questionnaire.²

Phase 2 was conducted by nurses, and involved re-visiting the households that had agreed to participate in the study during Phase 1. The supervisor randomly chose participants of various ages using Kish's Grid and assigned a nurse fieldworker to each household to interview them, if within the appropriate age (i.e., if aged 12 years and older), and then afterwards collect either blood serum or saliva using an Orasure device or both for HIV-antibody testing from all participants aged 2 years and older following the appropriate ethical guidelines. It is important to highlight the fact that data collection was done completely anonymously.

Fieldwork took about five months to complete, including a one month's halt. The halt was the result of these reasons: to sort out an unfounded rumour of the death of a child who had taken part in the study; to discuss additional issues with members of the Klerksdorp District Council's Health Department who had been erroneously left out of the consultation process; and most importantly, to pause during the national elections held during April 2004.

Data capture from questionnaires was outsourced and quality control checks done by staff from the SAMM programme of the HSRC. The specimens for HIV testing were sent to Contact Lab Services (CLS), a subsidiary of the WITS Health Consortium for HIV-antibody testing. The analysis involved using a single Vironostika HIV Uni-form II plus O ELISA test to determine the HIV status.

Results

During analysis, the linkage between interview and HIV testing results was made possible by using a barcode common to the questionnaire and the specimen collected from each participant.

Response rate

The response rate at household level was 81.2% whilst the individual response rate was 84.4%. This gives an overall household and individual response rate of 68.5% ($=81.2\% \times 84.4\%$). About 74% of those who were eligible to participate in the study agreed to be tested for HIV. The HIV test response rate was 75.2% among females and 72.8% among males. Therefore, the overall response rate at household level, individual level and testing level was 51%.

HIV prevalence

Overall HIV prevalence

The overall HIV prevalence for the whole sample (N=2401) was 11.8% (95% Confidence Interval [CI]: 10.2–13.5).

2 Copies of all questionnaires are available for downloading from www.sahara.org.za.

HIV prevalence by age, sex and race

HIV infection was found to be present across all ages, with prevalence of 3.0% among 2–14-year olds, 7.4% among 15–24-year olds, 21.9% among 25–49-year olds and 6.8% among the elderly who were aged 50 years and above. Overall, females had a higher prevalence (13.4%) than males (9.7%). In the 15–24-year old group females were found to have a prevalence of up to six times higher (12.1%) than their male counterparts (2.1%) while the opposite was true for the elderly, with males having a prevalence three times higher (11.3%) than that among females (3.9%). However, there were no significant differences between the two sexes for the 2–14 and 25–49-year old age groups. Africans had the highest HIV prevalence (15.4%) compared to whites (0.2%) and coloureds and Indians, whose HIV prevalence could not be determined due to very small samples of these two race groups.

Biological correlates of HIV infection*Tuberculosis (TB) history and HIV prevalence*

Almost a third of both males and females who were infected with HIV had TB symptoms of a persistent cough for more than one month. The results also showed that a significantly higher number of males than females were receiving treatment for TB.

History of STIs and HIV prevalence

Only 1% of participants aged 12 years and older reported that they had been diagnosed with an STI. The number of participants who reported an abnormal penile discharge in the last 3 months was 2.4%.

Behavioural risks*Sexual experience*

Most of the respondents reported having only one sexual partner (95.5%), with females and those aged 50 and over (99.5%) most likely to report one partner. A significantly high proportion of male adults aged 25–49 years (10.5%) reported that they had more than one partner as compared to males aged 15–24 years (7.8%) and those older than 50 years (2.0%). Also females in the 15–24 age group had a significantly higher proportion with more than one partner (8.1%) than females in the other two age groups (2.5% for 25–49 years and 0.5% for those 50 years and older). When the data were disaggregated along racial lines, a significantly higher proportion of African males (10.3%) were found to have more than one partner than males from the other races combined (1.7%) while there were no differences between African females (3.2%) and those from the other races (3.2%).

Condom use

Condom use during last sexual intercourse was highest among those aged 15–24, especially among males (77%), as against females (58%). Men and women aged 50 years and older (6% and 6.4% respectively) reported the lowest rates of condom use. Africans showed higher condom use (40.5%) than other racial groups (13.2%). Males who reported sexual intercourse with more than one partner had a significantly higher rate of condom use (65%) than those who had one partner (31.1%). In contrast, condom use was lower among females who reported that they had more than one sex partner (25.8%) than among those who had one partner (43.5%).

HIV/AIDS Knowledge

The data show that the overwhelming majority of the participants aged 15 and over had correct knowledge about how HIV is transmitted. At least 90% understood that HIV could

not be transmitted through witchcraft or touching a person who was HIV-positive. Over 90% indicated that having sex with a virgin was not a cure for AIDS. However, almost 80% of the participants believed that HIV cannot be passed on by kissing.

Services and awareness of care programmes in the community

More females (25.5%) than males (18.3%) knew of home-based care programmes (HBCP) running in the community, with males aged 15–24 as well as 50 and older being least aware (17.6% and 16.3%, respectively). Females aged 50 and older (29.2%) were most aware of the programmes. Over a quarter of the respondents reported welfare grants (27.7%) as providing this HBCP service, followed by faith-based organisations (FBOs, 16.4%) and non-governmental organisations (NGOs, 13.2%).

The data show that medicine was by far the most popular support (30.8%) provided for an ill household member, followed by food (13.3%), emotional support (12.0%) and home visits (10.1%). When asked what support they would have most liked, money was the most frequently mentioned (23.4%), followed by medicine (16.4%), food (14.2%) and home visits (11.5%).

Perception of policies related to HIV/AIDS

Most participants believed that political leaders recognised the importance of HIV/AIDS (79.7%) and were committed to controlling the pandemic (76.6%). Over 81% indicated that they believed that the government was doing more in the current year (2004) in treating PLWHA than previously. However, only 70% of respondents believed that the government was allocating sufficient funds to control the spread of HIV infection.

The findings indicate that there was a significant difference between the perceptions of Africans and other races, with the former holding more positive views than the latter. While more than 78% of African respondents believed that there was sufficient commitment and allocation of funds from government with regards to HIV/AIDS, less than half among other racial groups (46.6%) shared this view. In addition, less than 70% of the non-African group thought there was public recognition of the importance of the disease or that the government was doing more this year in treating PLWHA, compared to 84.8% of Africans.

Human rights

The results showed that many participants held negative views about PLWHA, with over 37% of both males and females indicating that they would not buy from an HIV-infected shopkeeper nor trust any HIV-infected person. Over 27% indicated that HIV-positive children should be kept separate from those who were not infected with the virus. A quarter of both males (24.7%) and females (26.7%) also believed that it was a waste of money to train HIV-infected people, while close to half (49.5% of males and 48.7% of females) indicated that they would not marry an HIV-infected partner. More males (56.5%) than females (52.1%) indicated that they would have a problem having protected sex with an HIV-infected partner.

Substance abuse

The present findings about substance use among respondents aged 12 years and older shows that more males (49.7%) than females (28.6%) reported using alcohol across all age and racial groups. The rate of alcohol use increased with age, with very few male (3.0%) and

female (1.6%) children in the 12–14-year age group reporting alcohol use. Male respondents aged 50 years and older (63%) reported the highest rate of alcohol use. The reported use of alcohol among African male (42.8%) and female (20.3%) respondents was relatively low in comparison to other male (71.0%) and female (52.2%) racial groups combined.

Perceived susceptibility to HIV infection

The way people perceive themselves either at risk or not at risk of contracting HIV largely determines their sexual behaviour patterns. When participants were asked to rate themselves on a scale of 1 to 5 regarding becoming infected with HIV, the overwhelming majority of participants (98%) reported that they probably or definitely would not get infected with HIV. Only 3% of those individuals who tested positive in this study rated themselves as high risk. Over a third (35.8%) of those who thought they were at high risk were found to be HIV-positive.

Voluntary counselling and testing

Voluntary counselling and testing (VCT) for HIV is a necessary precursor to developing effective treatment, care and support services. Overall more than a third (34.6%) of respondents reported to have had an HIV test. The main reason participants went for an HIV test was due to ill health. More respondents (40.4%) who perceived themselves to be at high risk of contracting HIV had had an HIV test, compared to those classified as low risk (31.2%).

Risk environments for children aged 2–14 years

In the present study, we identified care and protection and knowledge and communication about sex and HIV/AIDS as two important components of children's vulnerability to HIV infection.

Care and protection

Overall, the majority of children were well looked after at home. However, only 4% of caregivers were 'sometimes' present when children aged 2 to 11 were at home. Eight per cent of older children aged 12 to 14 were at times not required to inform their caregiver about their whereabouts. Sixty per cent of younger children were never sent out on errands alone, as compared to almost a fifth (19.8%) of older children. Almost half (45%) of older children were left alone at home.

We also examined the nature of the care children received at school. The large majority (75.6%) of school-going children reported that educators always attended classes. Less than half (43.7%) reported that educators always monitored children during break and even fewer (36.5%) indicated that the school toilets were always monitored. Educators did not always monitor children coming and leaving school. Almost two-thirds (61.5%) of children reported that educators made sure that no unauthorised people entered the school.

Sexual harassment of girls at school was found to be serious, with almost two-fifths (38.2%) of children reporting that boys sexually harassed girls, and over a tenth (11.3%) reporting that male educators proposed relationships with girls.

Communication and knowledge about HIV/AIDS

Caregivers were more likely to discuss sex with girls than boys. The overwhelming majority of children (81.4%) felt that it was good for parents to speak about sexual abuse. Teachers were the most important source of information about HIV/AIDS and sexual

abuse for children aged 12 to 14 years. Families provided much more information about sexual abuse than HIV/AIDS. Peers provided very little information on either topic.

There were a few areas where children had inadequate knowledge about HIV transmission. A small majority of respondents (54.4%) agreed that a baby can become HIV-positive through breastfeeding. Over a fifth (23.8%) felt that a person can become infected from a mosquito bite.

Conclusions and recommendations

HIV prevalence

The study found that the overall HIV prevalence in the municipality mirrored that found in the Shisana & Simbayi national survey (2002), with 11.8% of the respondents testing positive for the HI virus. HIV prevalence in the younger age group of 15–24 years was lower than the national average. For males, it was a low of 2.8% while for females it was 12%. It is therefore important to intensify efforts aimed at prevention of HIV infection so that those who are HIV-negative remain so. Of concern is that the age group 25–49 years showed an infection rate of 21.9%, which is much higher than the national average of 15.5% for the group. This finding suggests that extra efforts aimed at prevention may be needed to target this age group. The rate of HIV prevalence found in Klerksdorp Municipality also suggests a need to scale up the provision of antiretrovirals in the district to alleviate the suffering of those who are already infected with the disease.

False sense of security

It is recommended that HIV/AIDS campaigns and programmes address the false sense of security that exists in the community. Too many respondents who were found to be HIV-positive in this study perceived themselves to be at low or no risk of contracting HIV. More people should be encouraged to make use of VCT services to determine their HIV status.

Risk environments for children

Regarding risk environments, it is evident that care and protection of children in both homes and school could be improved. Myths and incorrect knowledge about HIV/AIDS transmission and prevention should be addressed, and communication about sex and HIV/AIDS between caregiver and children should be improved.

Gender

The present study found that women had higher HIV prevalence than men. It is recommended that one long-term measure to address women's vulnerability to HIV infection is social and economic empowerment of women. In addition, current mother-to-child prevention programmes need to be intensified, and broadened to include counselling of both male and female partners.

Knowledge and attitudes

Knowledge of HIV causation was very high, with almost all respondents showing understanding that HIV infection does not occur through casual contact. However, this knowledge did not seem to dampen the stigma of HIV/AIDS. Participants' attitudes towards people infected with the virus were largely negative. It seems that more needs to be done to reduce or remove the stigma of HIV/AIDS and creative ways need to be developed to address this issue.

Prevention

One strategy of the national approach to HIV/AIDS prevention in South Africa is the use of condoms during sexual intercourse. The findings of this study showed that while condom usage seems relatively high in the 15–24 age group, it falls to less than a third in the 25–49 age group and only 6% in those aged 50 and above. The reason for this may be that the older people are more likely to be in a monogamous relationship and therefore see themselves as being at less risk of HIV infection. However, data from other surveys indicate that it is precisely the age group 25–49 years that is at most risk of HIV infection. Accordingly, it is recommended that there be an intensification of awareness programmes for this age group. It is also recommended that, in view of the comparatively low frequency of condom usage among women, programmes consider more effective ways of empowering women to negotiate safe sex practices with their partners, including promoting the use of female condoms and microbicides.

Another approach that is promoted in the South African national HIV/AIDS strategy is faithfulness to a sexual partner, as multiple partners increase the risk of HIV infection. This study found that at least 90% of both men and women in all age groups reported only one sexual partner over the past 12 months. This finding is quite encouraging, as it suggests that there may be a resulting reduced risk of HIV infection. Therefore, this message needs to keep being reinforced by intervention programmes.

Care and support

The study found that awareness of home-based care programmes in the community was quite low. Only about a fifth of all participants reported knowing about such programmes. Males were less aware of home-based care programmes than females. In addition, welfare grants were reported most frequently as providers of home-based care programmes. It seems that there is a need to increase community awareness of care and support programmes that are available in the district. Such awareness will alleviate the plight of PLWHA and their families in the district. The results also suggest that community members are receiving some support from services provided in the community with regard to medicine, food and emotional support. However, lack of money seems to be a major concern. It must be mentioned that the South African government's Department of Social Development caters for a variety of social welfare grants, including child support and social relief, which is aimed at alleviating poverty. One challenge facing the government is to promote awareness and improve accessibility of such programmes to the general public.

Policy perceptions

The perceptions of people in Klerksdorp Municipality were generally supportive of government policies related to HIV/AIDS. Although more than 70% of the participants surveyed were supportive, there was some concern that the government is not spending enough resources for effectively dealing with the problem. Since the government has greatly expanded the amount of resources, especially through higher budget allocations every year, there is a need for an advocacy campaign to highlight the diversity of services available to PLWHA at local community level, not only in Klerksdorp Municipality but throughout the whole country.