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Planning, Access to Water and HIV/AIDS Driven Health Challenges in Ivory Park, ward 77.

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A research report submitted to the faculty of Engineering and the Built Environment, University of the Witwatersrand, Johannesburg in partial fulfilment for the degree of Masters of Science in Development Planning.

Johannesburg, 2008.

DECLARATION

I, Mndze Siphumeze, declare that this research report is my own work, unaided work. It is being submitted for the degree of Masters of Science in Development Planning in the University of the Witwatersrand, Johannesburg. It has not been submitted before any degree or examination in any other University.

_____

(Signature of candidate)

___day of _____year _____

ABSTRACT

Apartheid planning led to the unequal distribution of social services in South African communities. This happened since apartheid planning delivered social services on the basis of colour. In this process, the white communities got proper delivery of social services while the black communities got very limited or no delivery of social services. In doing this, the apartheid planning hindered access to water in many areas of South Africa (S.A) especially in informal settlements such as those of Ivory Park, Soweto and Alexandra. Blacks who tend to be unemployed with very low levels of education, training and skills dominate these areas. Constitutionally, black people are made up of Africans, Coloureds and Indians. In addition, blacks who reside in informal settlements tend to be poverty stricken. The lack of reliable access to water in Ivory Park, ward 77 which is the focus of this report is accompanied by high rate of Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) that comes with health challenges.

The HIV/AIDS driven health challenges are manifested by excessive periods of diarrhoea, repeated release of faeces, HIV/AIDS infected body fluids including urine that contaminate the beds, linen and clothes of the HIV/AIDS patients to mention just few examples. In the initiative that aims to respond to the HIV/AIDS driven health challenges, the communities formed HIV/AIDS based care giving institutions which are normally run by the HIV/AIDS based caregivers. The HIV/AIDS based care giving institutions counter HIV/AIDS driven health challenges by the use of water. That means, without access to water, the HIV/AIDS based care giving cannot be undertaken in an effective manner. Ivory Park, ward 77 has poor access to water, and the informal settlement has a high rate of HIV/AIDS.

This report shows the role that can be played by access to water in dealing with health challenges that are driven by HIV/AIDS in Ivory Park, ward 77. It does that by revealing the challenges of access to water and the correlation between water and HIV/AIDS. In showing the role of water in dealing with HIV/AIDS driven challenges, this research report acknowledges that water cannot cure HIV/AIDS. It also accepts the fact that the Antiretroviral drugs, nutritious food and proper medical care should accompany access to water to provide a comprehensive care and support to the HIV/AIDS patients. This research report dwells on access to water in the context of dealing with health challenges that are posed by the epidemic. It strongly contends that quantity and quality of water are of paramount importance in the efforts that aim at providing an effective HIV/AIDS based care giving. In arguing on access to water and HIV/AIDS based care giving, the Communicative Theory which calls for a dialogue guides the facts and issues that are documented in this report. In applying the Communicative Theory, this report argues that HIV/AIDS based caregivers should be included in the decision making that has to do with planning the delivery of water. This is done with the application of the perspectives that are borrowed from Advocacy Theory.

THIS DOCUMENT IS DEDICATED TO GERALDINE NOMBULELO TYANI

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CHAPTER ONE

1. INTRODUCTORY CHAPTER

1.1 Introduction and Background

The advent of democracy in South Africa (S.A) brought to an end the apartheid policies that have to do with a discriminatory delivery of social services such as water, electricity, sewage and garbage collection. This discriminatory service delivery provided comprehensive social services to white only societies while it provided less or no services in black societies (South African Government, 2003). The new democratic era is faced with a huge legacy of apartheid policies that has to do with socio-economic and spatial backlogs (Treiman, 2005). Such socio-economic and spatial backlogs are marked by poor access to water, poor garbage collection, poverty, unemployment and retarded sewage services (IRIN, 2007). Such problems are severely manifested in informal settlements such as those of Ivory Park, Alexandra and Soweto.

The huge backlog in access to water is accompanied by the widespread of HIV/AIDS epidemic in informal settlements (Tomlinson, 2007). Great numbers of people have died and some of them are offered palliative care in their homes and in HIV/AIDS based care centres (Treatment Action Campaign, 2003). Water is of paramount importance in efforts that aim at providing HIV/AIDS based care (Ashton et al. 2002). That means, water has the potential to affect the quality of HIV/AIDS based care giving, which can be provided to the HIV/AIDS patient.

There is a link between poverty and HIV/AIDS. The poor people normally engage in commercial sex with the intention to earn money to meet basic needs such as purchasing food and clothes (Tomlinson, 2007) Most of HIV/AIDS patients and caregivers constitute poor people. Such people are predominantly found in informal settlements. These areas have poor access to water. The case in point is Ivory Park ward 77, which is the focus of this research report.

It is widely known that water is a 'God given gift' (Ashton, 2002:218). In addition, water is a renewable resource and its availability relies on a variety of geographic and climatic factors (Ibid). 'S.A is located in a semi arid part of the world and it is a water-scarce country. The country's climate varies from desert and semi desert in the west to sub-humid along the eastern coastal area, with an average rainfall of about 450mm per year (mm/a), well below the world average of about 860 mm/a while evaporation is comparatively high' (Department of Water Affairs and Forestry, 2005:595). The combination of the aforesaid factors makes the country's water resources, in global terms, scarce and limited. To counter the scarcity of water, S.A buys water from Lesotho to meet the water related needs of the citizens (Ibid). Lesotho has water in abundance. The abundance of water is revealed by the capacity of the country to use water for domestic activities and export it to generate revenues.

Background

While clean water is taken for granted in many places, it is a scarce resource in others. This is made possible by the climatic and geographic factors that determine the availability of water. In addition, the mismanagement of water and lack of enough resources and capital to extract it from the bowels of the earth and other sources creates its scarcity. The following table represents the facts and issues about water. The United Nations Development Programme (UNDP) (2006) reveals such matters by the use of the following table.

Table 1: Water access related facts for the world in 2005

FACTS ABOUT WATER AND SANITATION	NUMBERS
Poor access to water	1.1 Billion
Lack of access to sanitation	2.4 Billion
Lack of access to clean water	2.2 Million

Source: United Nations Development Programme (2005) Water Governance

According to the above table, some 1.1 billion people of the world's population, lack access to safe drinking water. Water scarcity left over 2.4 billion people without any access to adequate sanitation. In addition, more than 2.2 million people in developing countries, most of them children, die each year from diseases associated with lack of

access to clean water, inadequate sanitation and poor hygiene. A large proportion of people in developing countries suffer from diseases caused either directly or indirectly by the consumption of contaminated water or food or by disease-carrying organisms that breed in water (United Nations Development Programme, 2007). 'With adequate access to clean water and sanitation, the incidence of some illnesses and death could drop by as much as 75 per cent' (World Health Organisation, 2006:11). About half of the drinkable water in water supply systems in the developing world is lost through leakage and its contamination (United Nations Development Programme, 2007). This exacerbates the scarcity of water.

In some countries, clean water is highly subsidized for those connected to water infrastructure such as pipes which extract it from its sources like dams (African Environment Outlook, 2000). Generally, poor people who are normally not connected to the water infrastructure tend to rely on expensive private sellers or have to rely on unsafe sources. This has led to the transmission of malaria (Ibid). Some areas of South Asia and sub-Saharan Africa are examples. The United Nations (2002:15) argues that 'the World Summit on Sustainable Development (WSSD) which was conducted in Johannesburg in 2002, involved proposals that aim to mobilise global financial and domestic resources at all levels to be exploited with the intentions of facilitating access to clean water and sanitation'.

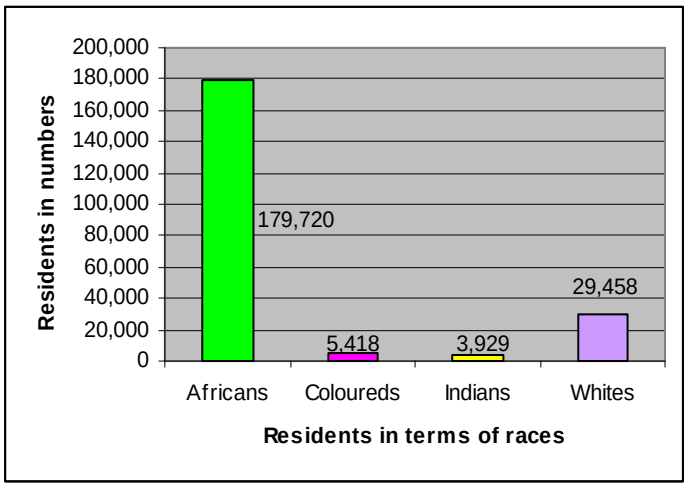
In S.A, the access to water is unevenly distributed (Van de Walt et al. 2005). This means that there are those who have proper access to high quality and sufficient water and those who have not. Those with proper access to water are found in formal settlements (Crankshaw et al. 2000). Such areas have adequate water infrastructure as compared to informal settlements, which have less developed water infrastructure. 'The people in informal settlement have low educational standards. They are unemployed and most of them are severely stricken by poverty. They travel long distances to fetch water. The sources of water are not safe and they exacerbate illnesses' (Crankshaw et al. 2000: 834). Such incidents are also found in the informal settlements of Soweto and Alexandra (Statistics South Africa, 2001).

Many areas of the City of Johannesburg (CoJ) have poor access to water. This made the city to embark on strategies that aim at facilitating water delivery. The Operation

Gcin'amanzi is a case in point (City of Johannesburg, 2006). But, such strategies that aim at delivering water are applied within the neo-liberal framework that advances the cost recovery principle.

'Ivory Park, a place that is found in S.A is one of the areas that lack adequate access to clean water' (City of Johannesburg, 2006:2). It is a home to over 70% of Midrand population (ibid). The area has huge informal settlements, which lack access to sufficient clean water. The following figure demonstrates the demographics of Ivory Park.

Figure 1: Demographics of Ivory Park in 2001



Source: Statistics South Africa (2001) The demographic Analysis of Ivory Park

According to the Statistics South Africa (SSA) (2001), Ivory Park has 218,510 people. The above figure depicts that Africans make up 179,720, Coloureds 5,418, Indians 3,929 and whites 29,458. The access to clean water in Ivory Park is unevenly distributed. The people who reside in formal settlements have more access to water as compared to those who live in informal settlements. This is made possible by the good water infrastructural networks in the formal settlements. The following table gives a reflection on access to water including its sources.

Access to water and its sources in Ivory Park.

Table 2: Access to water in Ivory Park, 2001

SOURCE	NUMBERS OF PEOPLE
Water within dwellings	27,648
Water inside yard	33,201
Community stands	6,336
Community stands (over than 200 Metres)	4,596
Borehole	432
Spring water	15
Stagnant water (dam/pool)	21
Rivers or streams	6
Purchases	105
Other	1,389

Source: Statistics South Africa (2001) Access to water In Ivory Park

All the statistical analysis was taken in 2001. Taking into consideration the table which is depicted above, the people who had access to water in their dwellings totaled 27,648, those inside their yards totaled 33,201, those who accessed water through community stands totaled 6,336. This is a decline in the number (8,621) of those who had an access to water via community stand in 1996. The SSA (2001) also revealed that those who had an access through community stand over than 200 Meters totaled 4,596, those who accessed water by borehole totaled 432, those who used spring water totaled 15, those who used stagnant water (dam/pool) totaled 21, those who accessed water through rivers or stream totaled 6 and those who purchased it totaled 105. There is the category of the so-called other that also had an access to water. These people made up 1,389 in 2001 (Statistics South Africa, 2001). These people get water from the rivers or streams. Sometimes they buy it. They do not have one stable source of water. Given what is revealed by the afore-mentioned statistics about access to clean water in Ivory Park, it can be concluded that in 2001 some people struggled to attain access to potable water. These people reside in ward 77 where the access to clean water is very minimal.

The lack of access to clean water is accompanied by a wide spread of HIV/AIDS in Ivory Park, ward 77 (Southern African Regional Poverty Network, 2007). But, there has been an improvement in the access to water. This is shown by an increase in the

number of people with access to potable water. Such water can be utilised to tackle the HIV/AIDS driven health challenges. In relation to water and HIV/AIDS, Koffi Annan, the then secretary of the United Nations (United Nations) said, 'the war on HIV/AIDS cannot be won without access to clean water in the African continent' (Southern African Regional Poverty Network, 2007:4). This raises a question and an interest on the side of the researcher to find out if water can play a role in dealing with HIV/AIDS driven health challenges.

1.2 PROBLEM STATEMENT

The large numbers of people who reside in Midrand are found in Ivory Park. This is the case since, 'Ivory Park is the home of over 70% people of Midrand. The majority of people reside in informal settlements. Such people are found in ward 77. These people have poor access to clean water. Those who have access to it travel long distances such as more than 200 metres to fetch it' (Statistics South Africa, 2001:11).

As it is stated that water can play a crucial role in countering diseases, it can be noted that access to clean water is very critical in dealing with diseases in Ivory Park, ward 77. That means, the lack of access to clean water compromises the efforts that aim to counter HIV/AIDS driven health challenges in ward 77. The ward 77 has many HIV/AIDS infected people (City of Johannesburg, 2002). The HIV/AIDS based caregivers contend that the poor access to water is a huge threat in the war on HIV/AIDS (Van Rensburg et al. 2006). This is made possible by the increase in water demand that is made possible by HIV/AIDS. Such HIV/AIDS driven water demand skyrocketed the HIV/AIDS based caregivers and patients' needs for clean water. But, ward 77 has a lack of access to clean water as stated before.

1.3 RESEARCH AIM

This main aim of this research is first, find out if there is a relationship between water and HIV/AIDS. More specifically, this research will find out if access to clean water can help in countering the health challenges posed by HIV/AIDS in Ivory Park, ward 77. Secondly, this research will highlight that, in order to meets water related needs of HIV/AIDS patients and caregivers there is a need to have a dialogue with them with

the intentions to make them active participants in planning the delivery of water. This will be done by the applications of Communicative Theory and Advocacy Theory as guiding instruments.

1.4 RATIONALE

The uncontrolled and rapid growth of informal settlements in S.A with adverse socio-economic and health challenges still attracts the interests of researchers. It is noted that such places lack capacity to make their voices to be heard by those who plan the delivery of social services such as water. As such, many are plagued by several diseases including HIV/AIDS. The majority of the Ivory Park people are not immune to this. Given the fact that people in Ivory Park, ward 77 are severely affected by HIV/AIDS pandemic, this research will try to find out how access to clean water can contribute to the initiatives that aim at countering health challenges that are posed by HIV/AIDS epidemic.

Since the government decided to provide only six thousand (6000) litres of free water a month per household, thus, this research will investigate if those litres can meet all the water related needs of the HIV/AIDS based caregivers and patients of ward 77. In doing so, this research will help to find out if there is a gap between water supply and water demand in the context of ward 77. In assessing the aforementioned gap, attention will be paid to HIV/AIDS implications on the demand for water.

The health and socio-economic aspects of HIV/AIDS has been researched extensively. In this matter, 'the effects of the disease are rarely considered beyond the clinical on affected person' (Barnett et al. 2002: 4). Thus, this research will show the impacts of HIV/AIDS on households that are affected in the context of access to water. This will be done in reference with the changing demand of water among the HIV/AIDS affected households.

Ultimately, more research work has been done on water supply in relation to health of people. Taking that into consideration, this research report will reveal the importance of water quality in relation to HIV/AIDS based care giving and patients. In this manner, it will show the importance of water quality in dealing with HIV/AIDS health

driven challenges. This will not underestimate the importance of water quantity, which will also be revealed in this research report.

1.5 METHODOLOGY

1.5.1 Quantitative Approach

This approach covers the statistics of the people in relation to their access to clean water in Ivory Park, ward 77. The information that is collected include, the numbers of people with an in-house tap, the numbers of residents with taps in their yards, the numbers of people with taps within a walkable distance of less than 2 kilometres, the numbers of residents who get water from springs, the numbers of residents who get water from dams, the numbers of people who get water from tanks, the numbers of those who get water from boreholes.

This approach involves the use of census data, which is revealed by Statistics South Africa (SSA). Demographics and the different amounts of income, in the context of access and affordability in regard to water, are also taken into account. The purpose of using quantitative approach is to find the actual background of the residents without taking into account their attitudes and perceptions.

1.5.2 Qualitative approach

This approach is utilised to find out the attitudes of HIV/AIDS based caregivers towards access to clean water. This approach helps to find out how those caregivers feel about access to water while they are taking care of the HIV/AIDS patients. The Ivory Park HIV/AIDS based caregivers were interviewed. Because of the constraints in relation to extracting HIV/AIDS related information, the HIV/AIDS patients were not interviewed.

There were questions regarding the needs of the HIV/AIDS based caregivers and patients. The questions were asked to the HIV/AIDS based caregivers who were willing to participate in the interview. Philani Support Group, which provides HIV/AIDS based care, was a participant. The organisation is found in the old

municipality building in Ivory Park. There are seven (7) HIV/AIDS based caregivers that were interviewed by the researcher. All those caregivers are members of the Philani Support Group. The Philani Support Group HIV/AIDS based caregivers were asked to fill a questionnaire (see the questionnaire at the back of the report). After filling the questionnaire, there was an interview about the relevance and the use of water in the initiatives that aim at providing effective HIV/AIDS based care to the HIV/AIDS patients. In this interview, questions were asked. The interview was made up of seven HIV/AIDS based caregivers. This really helped in finding out the caregivers' perceptions regarding access to water in the context of providing care and support to the HIV/AIDS patients.

1.5.3 Literature

This research utilises the secondary sources, the available literature on published books, internet and newspapers, which place emphasis on access to water, HIV/AIDS affected households, HIV/AIDS based care giving, guidelines for effective HIV/AIDS based care giving, cost recovery strategies in the delivery of social-services, Free Basic Water policy and socio-economic trends in relations to water supply.

There is also a use of the Constitution of the Republic of South Africa (RSA) in relation to water. In this context, the right of access to water is elaborated upon. In doing so, there is a reflection on the facts and issues that affect the above-mentioned water related right. Looking at the challenges of access to water from the socio-economic perspective and constitutional point of view also does this. In the application of the Constitution, there is a consideration of the socio-economic issues that involve access to water such as poverty and unemployment, quantity and quality of water in relation to HIV/AIDS based care giving.

In addition, the Constitution is used in dealing with the guiding theories, which constitute Communicative Theory and Advocacy Theory. But, the Constitution does not specifically call for the application of Communicative and Advocacy Theories. It shows the need to engage the community in decision making. In elaborating on the Constitution regarding Communicative and Advocacy Theories, the position of the Constitution in relation to the engagement of community in decision making about the

services to be provided to them will be reflected upon. There will also be a reflection of the constitutional support of Advocacy Theory. This will be done by looking at the sections that make possible the representation of HIV/AIDS patients and HIV/AIDS based caregivers in planning the provision of basic services such as water, which is the focus of the research.

1.6 LIMITATIONS OF THE RESEARCH

Firstly, the HIV/AIDS is a sensitive issue and it is treated as a human rights matter. This posed a stumbling block in obtaining some information from those who are directly affected by the epidemic such as HIV/AIDS patients. In addition, the human right status, which is given to HIV/AIDS based information, demanded the researcher to treat HIV/AIDS issue with respect. This led to the acceptance and use of only the information, which was provided.

The sensitivity of the HIV/AIDS was severely manifested when the researcher was conducting interviews. In those interviews, the respondents were asked to elaborate on their preferred answers on the questionnaire. In objection to some of the questions such as the one that says, why do you think HIV/AIDS should be taken as a priority? (Refer to the questionnaire at the back of the research report). They openly stated that they do not have to respond to all the questions since some of the questions require them to speak about the status of their HIV/AIDS patients and other HIV/AIDS based caregivers. This nearly created a very adverse environment for the open and friendly interviewing process. As a result the researcher only focused on asking neutral questions regarding HIV/AIDS with the intentions to maintain a good and cooperative environment for the interviews.

Secondly, the researcher did not undertake a comprehensive case study because of time and resource constraints. The nature of this research poses a huge limit on the side of the researcher. This occurs since this research has to be undertaken on a one-year basis. This led to the very small group of the HIV/AIDS based caregivers who were interviewed. The focus only to the Philani Support Group is a manifestation that time was not on the side of the researcher. This focus on the one organisation that offers HIV/AIDS based care giving without including a variety of others that are

found in other places led to the lack of some information, which could be utilised to answer the research question. More specifically, the time constraints led to a more focus on the documented material and small group interviews.

Thirdly, the language was one of the limitations in acquiring information. The majority of HIV/AIDS based caregivers did not prefer to be interviewed in English. Many of them preferred their indigenous languages such as Sesotho. The researcher does not understand Sesotho. This led to the focus towards only those who were willing and able to understand and speak English. This led to the exclusion of the most interested HIV/AIDS based caregivers who could give information, which was not provided by the interviewed but highly sensitive caregivers.

The number one economics problem says, ‘Resources are limited, therefore choices have to be made’ (Mujahid, 1973: 124). In the context of this research, financial resources were very limited. This occurs since this research has no sponsor and it is done as one of the requirements to attain the Masters of Science in Development Planning. This made the researcher to focus only on less costly areas in terms of accessibility. That means, the researcher was able to pay only for the one trip to Ivory Park, ward 77 to look at the spatial problems of the informal settlement that affect access to water. He was also able to pay only for a one trip to undertake interviews of the Philani Support Group caregivers. This resulted to the acquiring of information to a limited extent as more trips to the Philani Support Group and other caregivers would help in providing more information that is related to water and HIV/AIDS based care giving. The researcher encountered this obstacle by the accumulation of the written data on the importance of water in the efforts of providing effective HIV/AIDS based care and support.

1.7 CHAPTER OUTLINE

Chapter One

This is an introductory chapter which starts with the issues that propelled the initiative to undertake this research. Among other things, this chapter states the research problem, how the research was conducted and the obstacles of the research.

Chapter Two

This chapter is based on the theoretical and conceptual framework that shape and guide this research report.

Chapter Three

This chapter shows the role that is played by water in the efforts that aim at providing effective HIV/AIDS based care giving.

Chapter Four

This chapter analyses the research findings with the aim of showing how water plays a role in tackling HIV/AIDS driven health challenges.

Chapter Five

This chapter is based on the recommendations and conclusions. It does this with the consideration of what is argued in the previous chapters. It applies a SWOT analysis in the context of access to water and HIV/AIDS driven health challenges.

CHAPTER TWO

2. THEORETICAL AND CONCEPTUAL FRAMEWORK

2.1 INTRODUCTION

This chapter is based on the core concepts and theory that shapes and guides the argument of this research report. In using the theories, this research is severely concerned with principles that should play a notable role in guiding the facilitation of access to water. In doing this, this research report applies Communicative Theory with contributions from scholars in the field of Advocacy Theory. The chapter commences by defining the concept of access to water, relating it to urban socio-economic challenges by the poor that involve unemployment and lack of service delivery while living with HIV/AIDS in informal settlements.

Furthermore, this chapter gives an overview of poverty and reveals a relationship, which is found between access to water and poverty. In doing so, it applies the dimensions of poverty with reference to the informal settlements and access to water. Since water is assumed to play a huge role in HIV/AIDS based care giving, this chapter also reflects on HIV/AIDS epidemic and HIV/AIDS based care giving. It gives an overview about the genesis of the epidemic and the ways in which it affects households. It also provides different perspectives on the right of access to water. In doing this, it looks at the four aspects of Section 27 of the South African constitution, Act 108 of 1996 as amended. The last part of this chapter places it emphasis on the guiding theory of the research, which is that of Communicative Theory. As there are similarities that are shared by Communicative and Advocacy Theories, this chapter will also reflect Advocacy theory and similarities that are found in the two theories. This has to be done since this report will draw from the Advocacy Theory perspectives in applying the Communicative Theory to guide the argument.

2.2 DEFINING ACCESS TO WATER

Access to water is measured by the number of people who have a reasonable means of getting an adequate amount of water that is safe for drinking, washing, and essential

for household activities, expressed as a percentage of the total population (Dooly, 2004). It cannot be ignored that access to water depends on many factors, and one of the notable factors is economic growth (Sociolingo's Africa, 2007). If the economy grows, its capacity to supply social services to the people of the country enhances. Put differently, as a country's economy becomes capacitated a larger percentage of its people tend to have access to drinking water and sanitation. The highly capacitated economy is evidenced by the increase in its Gross National Product (GNP) per capita. Precisely, 'Gross National Product (GNP) is the total value of all final goods and services produced by a country's factors of production and sold on the market in a given time period' (Todaro,2003:21).[1] The capacitated economy reflects good health of a country's people and the country's capacity to collect, clean, and distribute water to consumers. Access to water should be marked by the affordability of water by the residents of townships and informal settlements. It should be also revealed by the reachability of water by the poor and the rich easily and conveniently.[2] Such water must be available within an easily workable distance and within a house.

Taking into account the definition of access to water is can be noted that quantity of water in terms of access matters. In this context, the quantity of water refers to the amount of its litres that are accessed by the households. Such litres of the accessed water should enable households to do their washing, cooking, cleaning, bathing and other households' activities that need water.

The definition of access to water also includes the issue of quality. That means, people can have enough amount of litres of water, but if that water is not in a good quality it cannot be used. The good quality water is that one which does not lead to detrimental effects on the users or consumers.[3] Such water is intended to be ingested by humans. Water of sufficient quality to serve as drinking water is termed potable water whether it is used to be ingested or not.

[1] 'Factors of production include land, labour and capital, and they are utilised to produce goods and services' (Todaro, 2003:5). The ability of these to produce goods and services in an efficient manner results to growth in the economy. This happens as people start to have access to those produced goods and services without limitations that are associated with underproduction. This enhances the quality of life.

[2] This is based on the fact that the capacity of the factors of production will result in the installation of water pipes and taps that are able to distribute water to the people.

[3] This is premised on the fact that, high quality water lacks bacteria or pathogens that are detrimental to its consumer. Such bacteria or pathogens should be eradicated by the use of water cleaning chemicals.

Although many fresh water sources are utilised by humans, some contain disease vectors or pathogens and cause long-term health problems if they do not meet certain water quality standards (United Nations Development Programme, 2005). 'Water that is not harmful to human beings is sometimes called safe water' (World Heath Organisation, 2004: 5). It is water which is not contaminated. Many nations in the universe have set water quality regulations for water that should be used for consumption purposes. The World Health Organisation (WHO) has also set international standards that focus on quality of water (United Nations Development Programme, 2002). All countries of the world have to meet those standards so that they can provide safe water to their citizens. The aim is to enhance the quality of water which is accessed by humans. That means, water that has to be accessed by HIV/AIDS based caregivers can be in a good quality if the WHO standards are met. A constant and reliable access to water is necessitated to replace the fluids lost through normal physiological activities such as sweating and urination by HIV/AIDS patients.[4]

Access to clean water can be faced with challenges. This can be manifested by privatisation of water, contamination of water, demolished water pipes and underdeveloped water infrastructure. These are normally found in underdeveloped rural and urban areas.

2.3 THE SIGNIFICANCE OF WATER FOR HUMAN HEALTH

Access to water is not just a fundamental human need or a human right. Access to water also has substantial health and economic benefits to households and individuals. According to the WHO (2004), access to water means a considerable improvement in the lives of people, especially those of women. In this context, access to water is of paramount importance in the initiatives that aim at alleviating poverty. This is the case since an easy access to water makes people especially women spend more time on doing productive activities instead of travelling long distances to fetch water. The WHO (2004:8) says, 'estimates for the economic gains per $1 invested in water

[4] This idea is based on the fact that the loss of water from the body of an HIV/AIDS patient can lead to detrimental health problems which are associated with dehydration (World Health Organisation, 2001).

supply and sanitation to range from $5 to $28 depending on the level of services offered and the region. Major benefits are gained from less time spent on being ill, patient costs due to reductions in the low prevalence of diarrhoeal diseases and the value of prevented deaths'. The WHO (2004) advises that such investments should give water a priority status. This reveals that access to water is important in upgrading living and health standards of households.

On the other hand, the lack of access to sufficient and good quality water contributes massively to death and illness of people especially children (United Nations Development Programme, 2002). Thus, the improvement of access to water is a crucial element in the reduction of under-five mortality and morbidity, particularly in poor urban areas. According to the WHO (2004), the lack of sufficient access to clean water has the following negative health implications:

Diarrhea: In many countries, especially the developing world, diarrhea is the most important public health problem affected by water and sanitation. It can be both waterborne and water-washed. Hygiene promotion, which includes the simple act of washing hands with soap and water, can prevent one third of diarrheal disease and is therefore key in the prevention of waterborne diseases. About 4 billion cases of diarrhea per year cause 2.2 million deaths, mostly among children under five.

Intestinal worms: They infect about 10% of the population of the developing world and, depending upon the severity of the infection, lead to malnutrition, anaemia or retarded growth, and diminished school performance.

Trachoma: About 6 million people are blind from trachoma, a disease caused by the lack of water combined with poor hygiene practices. Studies found that providing adequate water supply could reduce the infection rate by 25%.

Schistosomiasis: About 200 million people are infected with schistosomiasis, of whom 20 million suffer severe consequences. Studies found that adequate water supply and sanitation could reduce infection rate by 77%.

Water-washed disease: It occurs when there is a lack of sufficient quantity for washing and personal hygiene, which facilitates, among others, the spread of skin infections.

Cholera: It is a worldwide problem, which can be prevented by access to safe drinking water, sanitation and good hygiene behaviours.

In terms of access to water, its quality also matters, as stated before. This is the case since water is capable of carrying fatalistic germs that can lead to terminal illness. There are water based disease transmissions that come by drinking contaminated water. Precisely, drinking polluted water is responsible for the outbreak of faecal-oral diseases such as typhoid and viral hepatitis A and dysentery and dracunculiasis as mentioned by the WHO.

The type of location determines the quantity and quality of water that is accessed (Ombogo, 2003). This happens since, those who reside in informal settlements tend to have water, which is in a low quality as compared to those who reside in formal settlements. Ivory Park is an informal settlement. Given this fact, it is important to look at the facts and issues around an informal settlement with the intention to create a proper understanding of that settlement. This type of information helps in detecting the type of water that is accessed in Ivory Park as an informal settlement. It also assists in looking at the assumed access regarding the quantity of water in the context of informal settlement.

2.4 INFORMAL SETTLEMENTS

Concisely, informal settlement can be described as a unit of irregular, low cost dwelling usually on land belonging to the third parties, and almost located on the periphery of the cities (United Nations Human Settlement Programme, 2005). ‘Informal settlements are normally made up of pieces of Polywood, corrugated metal, sheets of plastic, and any other metal that can be able to yield shelter’ (Durand-Lesserve, 2006:6).

Informal settlements are sometimes called shanty towns and they are mostly found in developing countries or partially developed nations with an unequal distribution of

wealth (Durand-Lesserve, 2006). In extreme cases, informal settlements have populations that exceed that of a city. Historically, informal settlement tended to originate on the outskirts of cities and this was manifested during the Great Depression of 1930s when informal settlements appeared across North America because of massive unemployment (Ibid). Such settlements were also found in Canada (Aiken, 1981). The informal residents blamed the governments for the socio-economic problems that led to the establishment of shanty towns.

There are some detrimental activities that are associated with the establishment of informal settlements. This is the case since, informal settlements are always built without a license (Ibid). 'Given the fact that construction is informal and unguided by urban planning, there is a near total absence of formal street grids, numbered streets, sanitation and water networks, electricity, or telephones' (Crankshaw, 1993:838). Even if these resources are present, they are likely to be disorganised, old or inferior.[5] Informal settlements also tend to lack basic services present in more formally organized settlements, including policing, medical services, and fire fighting. Fires are a particular danger for shanty towns because of the close proximity of buildings and flammability of materials used in construction. The example of the repeated outbreaks of fire is that of Cape Town informal settlements (Internal Africa, 2006).

'The other detriments that are massively associated with informal settlements constitute crime, suicide and disease' (Mathole, 2005:20). In addition, they are extensively associated with the high levels of poverty.

2.4.1 Access to water in South African Informal Settlements

South Africa (S.A) is faced with spatial problems that are the outcomes of the apartheid policies and legislations such as the 'Black Local Authorities' (Makgabo, 2005: 21). These policies complicated the delivery of social services such as, among other services, water, in black dominated areas especially informal settlements. This is still an existing trend in informal settlements. The poor delivery of water in informal settlements is accompanied by poor socio-economic conditions such as poverty and

[5] This is based on the fact that informal settlements lack constant upgrading of infrastructure as they develop uncontrollably without any planning guidance and regulations (Huchzermeyer, 2002)

unemployment including HIV/AIDS (Mathole, 2005). In informal settlements, many people are poor and marginalised as stated before in chapter one.

The socio-economic and health facts that are elaborated in the above paragraph do not only mirror the challenges that are faced by the poor and vulnerable people who are living in poor conditions, they also reveal the detrimental day-to-day challenges that face the HIV/AIDS patients and caregivers and their special needs for adequate quantities of water which is also in a good quality. Most of HIV/AIDS infected people live in informal settlements (Tomlinson, 2007). These are areas that are located in the periphery of the urban opportunities, far from city centres as a result of previous spatial apartheid, with their income generating capacity to afford sufficient water services needed for their care and prevention.

Access to water can also be approached from the perspective of Reconstruction and Development Programme (RDP). The RDP is a policy that was implemented by the African National Congress (ANC) led government in 1994 and it was abandoned in 1996. 'The primary aim of RDP was to meet the basic needs of people such as water through people driven development approach' (RDP, 1994:25). This policy tried to achieve that by undoing previous apartheid injustices in spatial development and delivery of services that was based on racial backgrounds. Despite climatic and geographic factors that make S.A a water scarce country, 'RDP recognised water as a basic need to be provided in a manner that it will meet everyone's health and other crucial requirements for now and in the near future' (RDP, 1994:28).

According to Bojo et al. (2001), access to water is not without challenges. Many countries in the world especially the developing ones, experience poor access to water. S.A is not excluded from that problem. The country has many problems in terms of access to water as stated before. In the following are challenges of access to water that face S.A including its informal settlements.

2.4.2 The challenges of access to water

The focus on economic benefits at the expense of the environmental concerns has adversely affected the quality of water (Ibid). Put simply, manufacturing and agriculture have led to the pollution of clean water. In this context, water quality has

to do with purification of water against bacteria, germs and viruses that breed on water. Such bacteria, germs and viruses can lead to the detrimental consequences for those who consume it. 'Many developing countries have failed to meet the international standards in regard to clean water' (Bojo et al. 2001:9). This is made possible by the lack of adequate technology that purifies water (ibid). Such countries are severely found is sub-Saharan Africa.

In referring to S.A, Makgabo (2005) approaches the challenge of access to water within a neo-liberal context which is coined, maintained and supported by the Growth Employment and Redistribution (GEAR) policy that is implemented by the African National Congress (ANC) led government. This economic terrain has facilitated an application of the cost recovery strategies in the delivery of social services. The implementation of GEAR resulted to the initiatives that aim at the privatisation of delivery of social services such as water (Bright et al. 2003). The poor and unemployed are unable to buy additional litres of water that are necessary to carry out their domestic water related activities (Ibid). But, the government tried to counter this by the introduction of the Free Basic water policy, which offers 6000 litres of free water per month to each household. But, 'the 6000 litres of free water per month that is provided by the policy does not meet the water related demands of the HIV/AIDS affected households' (Bright et al. 2003:5).

The inadequacy of clean water is predominantly found in informal settlements and in other areas that are close to activities that exacerbate pollution (Statistics South Africa, 2001). In South Africa, the informal settlements of Ivory Park are the examples. In Ivory Park, residents especially those of informal settlements have polluted water based diseases such as malaria and cholera to mention just few instances (City of Johannesburg, 2002). There is a dire need to facilitate access to clean water.

Privatisation of water is one of the challenges of access to water. This is the case since there are many people who are poor and unemployed that cannot afford to purchase water at the market price (Statistics South Africa, 2001). Such people are frequently found in informal settlements. This occurs since 'informal settlements lack infrastructural capacity that can connect them to the reliable sources of water' (World Bank Group, 2002:7). In addition, the residents of informal settlements are unable to

purchase water on the grounds that they live below the poverty line (living with less than one US dollar a day) (Ibid).

The combination of the afore-mentioned infrastructural and socio-economical facts and issues retards access to potable water. The South African example of such people is those in the informal settlements of Ivory Park, ward 77. Many residents of ward 77 do not have any source of income (Statistics South Africa, 2001).

Given the above matters on water, it can be argued that access to water is still a challenge in many areas especially in informal settlements such as Ivory Park, ward 77. But, there are initiatives that were taken by the government, which aimed at facilitating access to water such as Operation Gcin ámanzi. This made some people to have access to water while there are still others without any access to it. This limited and uneven access to water is coupled with the spread of HIV/AIDS epidemic.

The link between poverty and HIV/AIDS has been stated. But, taking into account what is already stated above around access to water, it can be noted that there is also a link between access to water and poverty. This is the case since poor people afford to reside in marginalized areas especially informal settlements. These areas lack proper water delivery infrastructure as stated before.

2.5 THE DEFINITION AND DIMENSIONS OF POVERTY

Poverty is understood in a variety of senses. The highly noted understandings of the concept include clothing, shelter, food and health care. In this sense, 'poverty can be clearly understood as a state of affairs in which a person or a community is deprived of, and or lacks the essentials for a minimum standard of well-being and life' (Tarp et al. 2002:5). These essentials may be material resources which include food, safe drinking water, and shelter or they may be social resources which constitute access to information, education, health care, good social status and political power or the chance to coin and maintain meaningful connection with other people and institutions in society (Tarp et al. 2002).

According to the UNDP (2005) poverty can be described as absolute or relative. 'Absolute poverty is a situation where people live with less that one dollar (US$) a

day. An example of people who are in absolute poverty would be the percentage of the population eating less food than is required to sustain the human body' (UNDP, 2005:4). Such people normally go to bed with empty stomachs. This type of poverty is normally stated as an extreme poverty that depicts the most severe situation of poverty (Ibid). In this situation, people hardly meet basic needs for survival, such as food, shelter, water, clothing, sanitation, education and health care.

On the other side, relative poverty involves a standard of living or level of income that is high enough to satisfy basic needs such as water, food, clothing, shelter, and basic health care, but still significantly lower than that of the majority of the population under consideration (World Bank, 2006). This type of poverty is also called 'moderate poverty' (Ibid.: 3). It is widespread in many people of the developing world.

In the attempt to create proper understanding of poverty, it is important to consider the dimensions of poverty.

According to the World Resource Institute (WRI) (2007) poverty has five dimensions. In the following are the dimensions of poverty.

2.5.1 Poverty proper

This is a situation where there is a huge need or shortage of enough income or assets that can be utilised in generating income. That means, in this state of affairs, people have no sources of income.

2.5.2 Physical weakness

This situation is severely propelled by under-nutrition, sickness and disability. This condition is a result of the excessive shortage of income generating activities, which result to famine.

2.5.3 Physical and social exclusion

This is a situation that exists as a result of peripheral location, lack of access to goods and services, ignorance or illiteracy. The people in this situation have inability to develop social relationships that can enable them to participate in their societies. They

lack education and information, the tools that are supposed to be utilised in participation.

2.5.4 Vulnerability

The poor are severely susceptible to crisis. They are also exposed to the risk of becoming even poorer. This is the case since they lack resources to counter disasters they come across in their lives.

2.5.5 Powerlessness

Powerlessness refers to when individuals have no economic, social and political powers not only to acquire reputable living standards, but to influence socio-economic policies, which have impacts on their daily lives also.

The above stated facts and factors around poverty are severely experienced in Ivory Park, ward 77. This is the case because of the apartheid legacy, which led to socio-economic and service delivery challenges. These facts and factors of poverty are accompanied by the presence of the HIV/AIDS. HIV/AIDS based caregivers lack adequate income to purchase more litres of water, which are required to carry out and maintain their care giving roles. In addition, these people are powerless and vulnerable as they lack enough resources. This makes them not to be listened to in terms of shaping the agenda of planning regarding access to water. They are excluded and they lack delivery of social services.

2.6 HUMAN IMMUNODEFICIENCY VIRUS/ACQUIRED IMMUNE DEFFICIENCY SYDROME (HIV/AIDS)

The HIV/AIDS poses a detrimental health challenge to many countries especially those found in Africa. According to Whiteside et al. (2003), HIV/AIDS was discovered in United States (US) in 1980. ‘Initially, the people who were severely affected by AIDS were homosexuals’ (Whiteside et al. 2003:5). HIV is not spread through casual or inadvertent contact like flue or chicken pox. In order to be infected, a person has to do something or have something done to him or her, which brings him or her to the exposure to the virus (Ibid). Sexual contact is the leading cause of HIV infection (AVERT, 2007). After entering the body, the virus attacks the immune

system and makes it less capable of fighting other infections (TRC, 2005). HIV/AIDS is not just one disease (Whiteside et al. 2003). It is a constellation of diseases that come about as the immune system stops working. Hence, it is regarded as a syndrome.

'The HIV/AIDS epidemic is killing so many people especially in sub-Saharan countries' (Okigbo et al. 2002:8). In S.A, HIV/AIDS infects many people through sexual contact. This happens in the form of rape and commercial sex which normally happened without using condoms (Tomlinson, 2007). In the context of commercial sex, women do sex for money. This is done with the intention to meet basic needs such as purchasing food and clothes. This shows the already said link between HIV/AIDS and poverty. There are other ways of being infected such as the entering of the virus into the blood stream through the use of contaminated blood or sharing of intravenous drug-injecting equipment and from mother to child, for instance, breast milk (AVERT, 2007). This reveals that there is no single way of getting infected by HIV/AIDS.

HIV/AIDS is a huge social and health threat in S.A especially in informal settlements such as Ivory Park (City of Johannesburg, 2002). This occurs since HIV/AIDS is associated with enhanced patterns of changes in demand for social services such as water and sanitation, good sewerage system, provision of electricity and the removal of waste.

2.7 HIV/AIDS BASED CARE GIVING

Concisely, HIV/AIDS based care giving was set up in response to the growing problem of care for people living with AIDS (Chirwa, 1998). It is normally done by a variety of organisations and concerned groups of those interested. The organisations and concerned groups involved are the so-called Non-governmental Organisations (NGOs), clinics, hospitals, families, relatives and friends. This is revealed by Akintola, (2004:3) when he argues that 'care giving organisations are usually set up by hospitals, particularly Mission hospitals, to cope with the overstretching of health facilities. The concerned groups constitute those who may be affected with HIV/AIDS or retired health professional, religious and international organisations'. But, the concerned groups are not always made up of those that are already stated by Akintola.

They sometimes include those who are not infected by HIV. Such people include volunteers and other people that are sympathetic to HIV/AIDS patients and those that are concerned about HIV/AIDS implications in their societies.

HIV/AIDS based care giving is organised in different ways. This is manifested by different HIV/AIDS based care models. Such models reflect diverse aims and origins of the caring organisations. According to Akintola (2004), there are six HIV/AIDS based care models. In the following are the different models of HIV/AIDS based care giving.

2.7.1 Community home-visiting care programme

This HIV/AIDS based care model utilises volunteers who are not paid to recruit and provide care to patients with basic nursing care. Furthermore, these caregivers provide patients with spiritual and moral support.

2.7.2 Home-based palliative care programme

'This model utilises hospitals and volunteers to recruit and refer patients to specialist nurses and doctors who visit homes regularly, using modern methods of pain control to relieve the pain of the patients' (Akintola, 2004:3). It is clear that patients are normally referred to specialist nurses and doctors in situations where the health problems are severe for the patients, such as uncontrolled diarrhoea, bleeding and vomiting.

2.7.3 "Step down" care with palliative care

In this model, the patients are given care for severe opportunistic infections in stage three (3) of HIV/AIDS related illness and the dying are given palliative end of life care. According to the WHO (2004), the stage three of HIV/AIDS related illness comprises unexplained chronic diarrhoea and pathogens that are difficult to treat. 'The cornerstone of HIV/AIDS stage three management is an aggressive replacement of fluids that cause dehydration and treatment of pathogens' (WHO, 2004:6). Those fluids become lost during lasting diarrhoea. The WHO (2004) states that such pathogens are caused by drinking contaminated water or eating food that has been in contact with contaminated water, flies or soiled hands. This shows a dire need of

access to clean water. That water should also be in a good quality to facilitate domestic, personal and food hygiene. This can play a huge role in preventing detrimental opportunistic infections.

The TRC (2003) states that palliative care, which is given to the dying, involves discussions that are about dependants and very important concerns of a patient especially if the patient was a parent.[6] In addition, 'Palliative care is an approach to treatment that is centred on the experience of the individual and family suffering directly and indirectly from an illness, which addresses their symptoms and concerns directly, and which is complementary to and does not exclude continuing efforts to treat the causes of that illness' (Medilink ,2003:3). Taking into account this definition, it can be agreed that palliative care considers the fears of patients. TAC argues that such fears can include funerals arrangements that have to be communicated with patients. This has to happen on the grounds that some patients start to worry about who will bury them and how (TAC, 2007).

It is important to also consider the perspective of the Health Resources and Services Administration (HRSA) that is found in United States of America (U.S.A) on palliative care. According to the HRSA (2007:3) 'Palliative care is patient-and family-centred care. It optimizes quality of life by active anticipation, prevention, and treatment of suffering. It emphasizes use of an interdisciplinary team approach throughout the continuum of illness, placing critical importance on the building of respectful and trusting relationships. Palliative care addresses physical, intellectual, emotional, social, and spiritual needs. It facilitates patient autonomy, access to information, and choice'. In this context, TAC (2007) says, palliative care includes solving family problems that are a concern of patients, bringing friends to communicate with the patients and to tell patients that there is life after death and death will bring a relief and rest for patients. In also includes telling good stories about patients and also voice how much they will miss them.[7] This can make patients

[6] This idea originates from the fact that the HIV/AIDS infected parent worries about the children who will be left behind after his or her own death. The worry revolves around the fear that has to do with the question of who will take care of the children especially if he or she is the only parent or a breadwinner left (Treatment Action Companign, 2003).

[7] This is based on the fact that the patient feels inferior after being humiliated by HIV/AIDS health challenges such as repeated and uncontrollable diarrhoea that contaminates the patient. This kind of a situation creates low esteem on the side of the patient (Treatment Action Campaign, 2007).

feel important and know that there are people who care. All these activities are organised by caregivers.

2.7.4 Tertiary outpatient care programmes

'This model of HIV/AIDS based care giving yields comprehensive, rehabilitative and palliative care' (Akintola, 2004:3). In doing this, it receives referrals from hospitals, religious groups, local chiefs and other NGOs (Health Resources and Services Administration, 2007). These can help in bringing the health of patients into a stable state as sound medical advice can be given to the HIV/AIDS based caregivers.

2.7.5 Semi comprehensive care programme

'This model is severely associated with home visiting by a team of medical personnel as well as councillors and religious people' (Akintola, 2004:3). These people talk with HIV/AIDS based caregivers and HIV/AIDS patients with the intention of creating and facilitating an effective and high quality care giving (TAC, 2004). In this process, they come up with constructive hints that arm caregivers and calm the health and psychological fears of patients to mention just few examples.

2.7.6 Comprehensive care programmes

'This model of care giving places its emphasis on providing services that include HIV/AIDS prevention, voluntary counselling and testing as well as treatment, care and support for people living with AIDS' (Akintola, 2004:3).

It cannot be denied that all models of care require access to clean water. The models that have to be applied in poor societies especially in informal settlements such as Ivory Park ward 77, leaves so much to be desired in terms of research. Some of the models of HIV/AIDS based care giving are applied especially Community-home visiting care programmes, which use volunteers, and Home based palliative care programmes. This is the case since these are less costly to the poor people of Ivory Park.

2.8 THE NATURE OF HIV/AIDS BASED CARE GIVING INCLUDING THE CHALLENGES IT FACES

The HIV/AIDS based care giving is normally executed by family members who serve as primary caregivers, and by community members who are recruited and trained to serve as volunteer caregivers (Southern African Regional Poverty Network, 2007). 'Care giving activities comprise physical and emotional support to the patients and work such as carrying, lifting and bathing of patients, staying awake at night to attend patients who are in the terminal stages of their illness, and cleansing those with frequent bouts of diarrhoea among other debilitations' (Akintola, 2004:3). In S.A, HIV/AIDS based care giving is massively dominated by women.[8] More specifically, the number of women involved in HIV/AIDS based care giving exceeds that of men. Family members and volunteers repeatedly take on household chores and assist with the care of children of the sick people.

The HIV/AIDS based care giving is very demanding for the family and volunteer care givers. The work creates physical stress; emotional and psychological stress including social and economic stress. The physical stress that is experienced by caregivers reveals itself in the form of headaches, backaches and general body weakness and fatigue. 'Some of the family members run the risk of being infected with TB because of frequent close contact with patients. In addition, family members run a risk of HIV infection since most of them do not use protective devices when caring for the sick' (Akintola, 2004:24). This reveals that there are many challenges that face South African HIV/AIDS based caregivers. These challenges complicate care giving. Such challenges especially economic stresses are massively manifested in Ivory Park. This occurs since unemployment and poverty are high in the area. 'The emotional and psychological stress manifest in tearfulness, sleeplessness, nightmares, feelings of guilt, helplessness and hopelessness about the imminent and frequent deaths of patients and tearfulness. Caregivers experience social stress as a result of alienation from friends and other social activities and also strains in caregiver-care-recipient relationship' (Mutangadura, 2005:5). Such alienation results from stigma and

[8] This happens since women are the most unemployed citizens of the country (Statistics South Africa, 2001). In addition, they are normally associated with domestic work such as that of cooking and taking care of children. This situation is frequently created by the tendencies driven by some cultures and patriarchy.

discrimination against caregivers. Stigma and discrimination against caregivers occurs because of the widespread stigma surrounding HIV/AIDS (Adebajo et al. 2003).

In that context of stigma and discrimination, Akintola (2004) says, stigma and discrimination force caregivers who feel not compelled to disclose the HIV/AIDS status of their patients to work effectively in silence and amidst lies about their work. They are constrained with regard to asking assistance from neighbours or other members of the community. In some cases, caregivers report stress arising from the lack of appreciation and outburst of anger from those they are caring for.

In looking at the economic stress in the context of HIV/AIDS based care giving, 'the economic burden of caring for the sick sometimes fall on the caregivers who often have to grapple with increased cost of living, decreased income from loss of jobs or job opportunities, transport to health facilities and transport of dead or funeral costs' (Akintola, 2004:24). This happens since some of the HIV/AIDS patients especially the young ones at the age that ranges from 14 to 21 have their inheritances taken by their relatives. This also happens to female HIV/AIDS patients. These patients lack money to pay for transport to the hospitals especially when there is a need for them to see medical specialists. In addition, HIV/AIDS patients need to consume nutritious food. This contributes to efforts that aim at creating good health for them. The lack of money to purchase nutritious food for patients creates financial burden, which leads to a financial related stress on the caregivers. The caregivers also experience a problem that has to do with a shortage of food (United Nations AIDS, 2006). This happens as they lack job opportunities because of stigma surrounding HIV/AIDS.

As stated before that it is women who normally carry out HIV/AIDS based care giving, thus, it is them who carry almost all burdens of HIV/AIDS based care giving. This occurs since they are viewed as main providers of care in homes. But, Akintola (2004) goes further by stating that women engage predominantly in HIV/AIDS based care giving on the grounds that many of women may have lost their male partners, or have never married, and, therefore, have to bear alone the financial costs of caring for self and sick family members. Moreover, men hardly ever help with care giving because they are usually involved in formal and informal activities to earn an income for the family. Some, however, deliberately shirk their responsibilities. 'When men do assist (e.g. bathing patients, cleaning and treating pressure sores), female caregivers

often feel uncomfortable as opposed to when men assist with hospital visits and arranging transport for the sick' (Akintola, 2004:7).

Taking into account the above stated facts of Akintolo, it is clear that HIV/AIDS based care giving, particularly in S.A, is faced with a challenge that has to do with the lack of resources especially financially. In addition, it can be noted that the lack of resources adversely affects the quality of HIV/AIDS based care giving. In S.A, women make up a large number of the unemployed, thus, it can be argued that HIV/AIDS based care giving can be compromised as they have no purchasing power to buy additional quantity of water which is required to carry out their roles. The different sorts of stress and challenges that are faced by caregivers mean that they can develop a dislike for the HIV/AIDS based care giving. This can exacerbate deterioration of HIV/AIDS based care giving.

Given the fact that HIV/AIDS poses so many health challenges that require a response financially, emotionally, socially and psychologically from the HIV/AIDS based caregivers, there is a necessity for HIV/AIDS based caregivers to be capacitated so that they can respond to those challenges in an effective way. According to the United Nations, cited by Ruland et al. (2005), there are five strategies that have to be applied in responding to the challenges posed by HIV/AIDS. These strategies are more relevant to the HIV/AIDS based care giving. In the following are the strategies that have to be implemented by the HIV/AIDS based caregivers in taking care of HIV/AIDS patients. These strategies will capacitate the caregivers to carry out their duties and roles in an effective way.

2.9 CAPACITATING STRATEGIES FOR HIV/AIDS BASED CARE GIVING

2.9.1 Strengthen Capacity of Families

Many families that are engaged in HIV/AIDS based care giving lack capacity to carry out this task. In addition, some of those who are engaged in care giving reside in areas that are distant from the HIV/AIDS based care giving centres (Ruland et al. 2005). This huge distance cripples the effort that is supposed to be put by the relatives in HIV/AIDS based care giving. Many families have been crippled by lack of resources that keep them far from each other (United Nations AIDS, 2004).

In addition, such families lack social capital that can play a crucial role in HIV/AIDS based care giving.[9] Social capital makes families to stay together and support each other. Put simply, social capital makes families to provide financial, emotional, and psychological support to those who are HIV/AIDS infected. The lack of social capital makes them lack that sort of support that is afore-mentioned. That means, when the caregivers are away, the HIV/AIDS patients stand more chances of experiencing problems that have to be tackled with the assistance of the caregiver. In situations where there is no caregiver the patients experience psychological trauma. Ruland et al. (2005) also shows that by stating that some of the problems that are associated with the absent caregiver include patient's anger, anxiety and depression. Strengthening the capacity of families that are involved in care giving is one of the strategies that are necessitated to address difficult psychological and emotional issues among caregivers and patients. There is more work that needs to be done in strengthening the capacity of HIV/AIDS based caregivers especially in S.A. Building social networks among the families with the intentions to create a support system for the HIV/AIDS based caregivers can do this.

2.9.2 Mobilise, Strengthen Community Response

Like families, many communities face the health problems that are driven by HIV/AIDS epidemic. This is the case since HIV/AIDS patients demand social services and they have to be buried in the graveyards of communities. It has been reported that there is a high rate of HIV/AIDS related deaths in KwaZulu-Natal (Russel et al. 2000). This shows that, community response is necessitated with the intentions to partake and support HIV/AIDS based care giving. This is also agreed by the United Nations (UN) when the organisation said, 'community-based interventions are urgently needed as the most appropriate way to address the challenges of HIV/AIDS in our families and communities' (United Nations, 2005:5). In the process of enhancing community capacity there is a need to address the issues of complex reality in which cultural factors, kinship ties and poverty are interwoven. This will

[9] Social capital is based on the idea of having networks that enable people to work together to solve problems (Castells, 1996). It goes further by entailing the capacity to interact with powerful institutions to deal with challenges. Basically, it has to do with joined-up efforts that aim at creating joined-up solutions.

assist in creation sustainable solutions in dealing with the HIV/AIDS based care giving.

One of the needs that require capacitating of the communities involves the HIV/AIDS positive orphans that have to be taken care of. The UNAIDS (2005) argues that the HIV/AIDS has re-configured families. This led to the situation where households are led by children of parents who died of HIV/AIDS (UNAIDS, 2005). Most of such children tend to have a positive HIV status (Ibid). But, this is not always the case as it is possible for those children to have a negative HIV status. Such children tend to be in poverty as the parent who is also a breadwinner dies.[10] This situation makes them lack resources to maintain themselves. That means, they lack money to buy basic needs such as food. They cannot even pay for social services such as water and electricity. This situation makes them unable to maintain their lives. In this situation the community has to intervene to assist such children. The community cannot assist children if it is not capacitated. There is a need to capacitate the community so that it can provide an effective support for the HIV/AIDS based caregivers.

Taking into account what is argued in the above paragraphs, it can be argued that the community can effectively respond to the health challenges that are posed by HIV/AIDS by providing its groups of volunteers that aim at assisting and partaking in efforts that aim at taking care of the HIV/AIDS patients. That means, a community must be capacitated by being organised into groups that provide HIV/AIDS based care giving. In addition, the community can be capacitated by building HIV/AIDS based care giving institutions. Such institutions can include clinics and other well organised group organisations that aim at giving care and support to the people who are living with HIV/AIDS. The community must be capacitated so that it can be in a position to generate its revenues (UNAIDS 2005). These revenues can be of help in supporting HIV/AIDS based care centres especially financially. The money, which is generated and provided by the community to the HIV/AIDS, based care centres can be used to buy nutritious food for the patients. It can also assist in financing water related charges for the social services especially water which is of dire need for the patients. The support of the community must not end there, it can also come in the

[10] This is based on the fact that when the breadwinner dies, the source of income for the family also disappears.

form of material support such as giving some property, which is necessitated by HIV/AIDS based caregivers. That property can include beds, tables, dishes, blankets and clothes for the patients and caregivers who are poor to mention just few examples. The community members can also donate food in the form of buying grocery for the HIV/AIDS based caregivers and patients.

The efforts of capacitating the community also mean the building of social institutions such as churches (Ruland et al. 2005). The churches can play a huge role in palliative care. They can offer prayers for the patients who are at the advanced stage of HIV/AIDS related sickness. They can go far by offering psychological and emotional assistance. In this manner they can ensure the patient that death is associated with rest without pains of sickness.

In the effort of capacitating and mobilising the community, the UN (2005) says, 'Among the interventions recommended in the study is the provision of training in psychological support to the community leaders and developing peer support networks with other youth in the community' (United Nations, 2005:6). This should be accompanied by the mobilisation of the vulnerable groups and families of community to build livelihoods skills. In addition, community groups should be used to reduce stigma, which surround HIV/AIDS groups. People must be encouraged to work hand in hand with caregivers.

2.9.3 Ensure Access to Education, Health Care and Other Services

Education is a dire need for the HIV/AIDS based caregivers.[11] According to Ruland (2005) the knowledge that has to be offered to caregivers should be based on HIV/AIDS based care giving and strategies that can help in achieving effective HIV/AIDS based care. The initiatives that aim at educating HIV/AIDS based caregivers should include teachers, doctors, social workers and nurses to mention just few examples. All these should have times to go to the HIV/AIDS based care centres. They must teach caregivers about ways of caring for the people living with HIV/AIDS. They should also give information on diet and on how to care for the patients in different stages of HIV/AIDS driven illness. This will position HIV/AIDS

[11] This is based on the fact that education provides knowledge for the HIV/AIDS based caregivers. It is taken as a necessity since knowledge can capacitate HIV/AIDS based caregivers to provide effective care and support for the HIV/AIDS patients.

based caregivers in a better way to effectively deal with the HIV/AIDS driven health challenges.

The UN (2004) recommends that HIV/AIDS infected people should go to school. In stating this, the UN (Ibid) refers to those who are not in terminal stages of HIV/AIDS related illnesses. It refers only to those who are just HIV positive but feeling healthy. It is a good idea especially if such people will dedicate themselves in HIV/AIDS based care giving. But, this is unlikely to happen as trained HIV/AIDS positive people will compare the benefits of HIV/AIDS based care giving with benefits of working in other places such as government and private sector. The higher the benefits of government and private sector, the lesser the chances of having a trained and educated HIV positive person working for the HIV/AIDS based care giving institution. But, educating them is still a good idea as they can minimise the burden of HIV/AIDS based caregivers. This can happen since they can take care of themselves especially financially. They can purchase nutritious food for them. If more HIV positive people get educated, the number of the HIV/AIDS patients that are dependent on the HIV/AIDS based care giving institutions can be limited. Thus, HIV/AIDS caregivers can be in a position to offer an effective care to a small and manageable number of HIV/AIDS patients.

Ruland et al. (2005) states that education, which is provided to the HIV/AIDS based caregivers should be accompanied by a health care, which is targeted, to HIV/AIDS based patients. This means a provision of medication to HIV/AIDS patients. The patients that require pills as a result of pains need to have a reliable and convenient access to those pills. Those who require medicines to treat wounds also need to access them with ease. But, this has a challenge in many developing countries especially in informal settlements. The challenge is posed by vast distances that are found between some informal settlements and hospitals and clinics that supply those pills and medicines. This complicates health care that is supposed to be offered to the HIV/AIDS patients.

Ruland et al. (Ibid) does not ignore the fact that the provision of services is important in capacitating HIV/AIDS based caregivers. In mentioning those services, Ruland et al. (Ibid) considers transport and water. In HIV/AIDS care giving processes, transport has to be used in transporting HIV/AIDS patients from HIV/AIDS based care centres

to hospitals and clinics. This occurs during emergent times where patients are very ill. Ruland deals with water from the perspective of ploughing vegetables for the patients in HIV/AIDS based care centres. Water has to be used in irrigating vegetables to be consumed by patients and caregivers. If water is not available, the ploughing of vegetables becomes impossible.

2.9.4 Ensure Government Protection

To capacitate HIV/AIDS based caregivers, there should be better laws, policies and support for communities and families including HIV/AIDS based caregivers by the government (UN, 2004). In this manner, the government must make sure that it provides support for HIV/AIDS infected people who do not have adequate family care. 'A sound and vigorous legal and policy response is necessitated to mobilise political and financial resources to safe-guard access of HIV/AIDS based caregivers to education, social services especially water, and to protect them from all forms of discrimination, neglect, abuse, exploitation and loss of inheritance' (UN, 2004:8).

It is reported that some families have the capacity to take care of their HIV/AIDS infected people (UN, 2004). These families simply do not decide not to care for their HIV/AIDS infected people. They decide to give them to the HIV/AIDS based care giving institution. This is the abuse and exploitation of HIV/AIDS based caregivers and services they offer. So, the government has to prevent the exploitation of HIV/AIDS based caregivers by the introduction and implementation of a policy and law. Some of policies that aim at capacitating HIV/AIDS based caregivers can include providing life-skills education to HIV/AIDS based caregivers enabling them to make sound care related decisions and to care for themselves when offering care to patients (Ruland et al. 2005).

In addition, the legal provisions must protect the rights of HIV/AIDS infected people and caregivers. In doing this, the government has to create various mechanisms at national, district and community levels to facilitate the implementation of laws that protect HIV/AIDS based caregivers and patients. It must also do the same in regard to policies that discourage stigma that surround HIV/AIDS and induce access to water and other social services by caregivers. This should be accompanied by the involvement of the Ministry of Justice and Constitution with the purpose of defending

inheritance and property rights of the HIV positive people especially children who have their parents died as a result of HIV/AIDS. The example of this happened in Uganda where the property and inheritance rights of dependants of parents who died of HIV/AIDS were protected by the state (UN, 2004).

The government protection must also include intervention of Courts of law. Courts should enforce the law that protects the rights of HIV/AIDS based caregivers and patients. In doing so, they must respond to the needs of caregivers and patients. This was done in Zimbabwe. In Zimbabwe, the courts adopt a friendly approach to the patients including to all HIV/AIDS positive children who are victims of sexual offences. 'The Zimbabwean courts offer child friendly environment by taking into account children's different cognitive and developmental stages. In addition the courts are linked to multi-sectoral team that provides counselling, community outreach and medical treatment such as the provision of antiretroviral as well as HIV testing, support and treatment' (Ruland et al. 2005:15).

Judging from what is argued above, it can be said that the supportive legal and policy framework, which aim at protecting HIV/AIDS patients, receives a growing support. Although, the government protection seems to be a good idea, there is always a gap between rhetoric and action. That means, having laws and policies that protect and encourage the rights of HIV/AIDS based caregivers and patients does not necessarily mean that they will be implemented. This is revealed by Ruland et al. (Ibid) when he says, there is a lacking data on the extent of implementation, as well as examples of how laws and policies have been used to protect and promote the rights and needs of people living with HIV/AIDS and vulnerable adolescents. 'Mechanisms to monitor responses at the policy level, including appropriate indicators need to be put in place' (Ruland et al. 2005:19).

2.9.5 Use of Advocacy and Social Mobilisation

The UN (2004) raises three strategies that should be utilised to increase awareness and create a supportive environment for people who are infected by HIV/AIDS. Such strategies involve 'conducting a collaborative situation analysis, mobilising influential leaders to reduce stigma, silence and discrimination, and strengthening and supporting social mobilisation efforts at the community level' (UN, 2004:6).

In terms of situation analysis, there should be a participatory analysis process that involves various stakeholders, including people living with HIV/AIDS (Ibid). In this context, participatory analysis should aim at understanding situation that makes HIV/AIDS based caregivers and patients experience vulnerability that is based on stigma and discrimination. Such situation analysis should also include the role that can be played by delivery of water in efforts that aim at creating effective HIV/AIDS based care giving. 'Broad participation assists to enhance social mobilisation and promote community actions' (Ruland et al. 2005:11).

In supporting and strengthening community mobilisation, faith based and civil society organisations have a role to play (UN, 2004). This can come in the form of strengthening and mobilising HIV/AIDS based caregivers by providing information and education on HIV/AIDS, campaigning to reduce stigma and discrimination and strengthening the community to respond to the day-today needs of caregivers and patients such as water. This initiative was revealed in Zambia. 'In Zambia a large scale community project called Strengthening Community Partnerships for the Empowerment of Orphans and Vulnerable Children (SCOPE-OVC), implemented by CARE/Zambia has reached more than 200,000 HIV positive children and youth through local NGOs with life sustaining care and support services. District committees assessed needs, developed action plans, and mobilised resources to implement the action plan. Those plains aimed at helping HIV/AIDS positive adolescents and children' (UN, 2004:12). This can be done in the initiative that aims to strengthen and support HIV/AIDS based care giving in South African informal settlements.

The combination of the above strategies can assist HIV/AIDS based caregivers to provide effective care to patients. That means, the application of the strategies can assist in facilitating the roles and duties of HIV/AIDS based caregivers. This is the case since their rights to access water would be protected and promoted. This would be accompanied by community support and initiatives that aim at eradicating stigma and discrimination. But, water that is accessed should be in sufficient quantities and it should be in a good quality so that it can assist in the efforts that aim at providing successful HIV/AIDS based care.

As suggested by Ruland et al. (2005) that laws should be made and be applied with the intentions to protect the inheritance and property rights of HIV/AIDS positive adolescents and children, the South African government also realised the need of laws and other statutory arrangements that aim at creating access to water in the form of making it a right for all citizens. No one is supposed to have this right to water violated by any policy, institution or person. Any policy, institution or person that violates the right of access to adequate water is considered as acting unlawful. This can lead to penalties with the intentions to stop that conduct. This is manifested in the Grootboom case in the Cape of Good Hope High Court where the Ostenberg municipality was given an interdict to provide basic services to the residents such as water (Wickeri, 2004). In the following is the overview of the South African constitutionally determined right of access to adequate water.

2.10 CONSTITUTIONALLY DETERMINED RIGHT OF ACCESS TO WATER

According to section 27 (1) (b) of the Constitution of the RSA (1996), everyone has a right to have access to sufficient food and water. The Constitution goes on by directly stating, 'the state must take reasonable legislative and other measures within its available resources to achieve the progressive realisation of the right of access to sufficient water which is stated above' (Republic of South Africa, 1996:13). This is manifested by the provision of section 27 (2) of the South African constitution as amended (Ibid). In considering what is stated above, one can argue that access to water is viewed as of paramount importance in sustaining human lives for the people in formal and those in informal settlements. All those people must not have their access to water hindered either in the form of legislation or policy.

The second provision of section 27, which is elaborated in the above paragraph, reveals that the state has a responsibility to have the right of access to water realised (Ibid). This section goes further by suggesting legislative and other measures that should be undertaken by the state to ensure access to water. The measures can be policy, programmes and other reasonable initiatives that aim at making access to water attained.

But, section 27 (2) brings the issue of resources into attention. This part of the section says, 'The state must take legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights' (Republic of South Africa, 1996:14). This shows that each and every initiative that intends to yield social services needs financial and non-financial resources such as intellectual or human resources. Precisely, resources especially financially must be committed to the initiative that is stated in the above sentence. With that in mind, economics states that 'resources are limited, therefore choices have to be made' (Todaro, 2003:7). That means, the state is faced with the scarcity of resources in its processes of providing basic services to the people and that is recognised in the Constitution. Given what is already stated in the above paragraph, it can be argued that there is a need of resources to have the right of access to water realised in a progressive manner.

The lack of resources requires prioritisation of needs. This means that the needs of the communities should first be assessed in order of their importance. The needs that are more important as compared to others should be given a priority status. For instance, water, which is one of the needs of the residents in Ivory Park, should be given a priority status as compared to other needs such as recreation facilities. In assessing and prioritising needs, the community should be involved. This can be made possible by the application of Communicative Theory.

2.11 COMMUNICATIVE THEORY

According to Fainstein (2000) this type of planning model encourages dialogue, negotiation among the planning stakeholders. It also aims at making the marginalized groups to partake in planning actively. 'In the dialogue and negotiation, the communicative planner encourages objectivity, openness and truth. In this process, stories are told and experiences are shared. The objective is to achieve mutual understanding among the stakeholders in planning' (Fainstein, 2000: 453). The poor groups are encouraged to communicate so that their interests can be represented in planning. This provides a platform for the decision makers to know the day-to-day needs and aspirations of the society especially the poor people. In the context of communicative theory, the planner's role is that of a mediator (Ibid). He or she mediates between different groups with diversified interests and aspirations. The

communicative planner tries to make sure that all the interests are represented. This places the planner into a difficult situation where there are sharp conflicting interests.

But, the communicative theory does not exist without challenges. The major challenge involves the imbalanced relations of power (Flyvbjerg, 2000). In many cases, the interests of the powerful groups tend to dominate in planning. This normally occurs at the expense of the weak groups. The powerful stakeholders have the ability to influence planning in their own favour. They shape the agenda of planning. Put simply, they determine how to discuss and reflect on planning issues. In addition, they also dictate what has to be decided. In this process the weak stakeholders become marginalised.

Power has many sources. The first source is made up of resources. Resources appear in the form of assets, finance and intellectual capacity. In the context of money, the resourced stakeholders normally use their finances to sponsor some programmes at the expense of others. They withdraw their finances from the non-profitable and doubtful programmes. This is normally done by the private sector. The private sector finances programmes and projects which are likely to result to profits. The projects and programmes that are unlikely to result to profits get marginalised in terms of funding. The water and land development projects are the examples of this. Given what is stated above, it can be argued that the highly moneyed stakeholders can use their financial muscle as a tool to influence planning.

Intellectual competency or creativity also gives the stakeholders that possess it more leverage in planning than those who lack it. ‘Intellectual capacity manifests itself in the form of brainpower, knowledge, and skills. Knowledge and skills are normally accumulated in the form of education, training and extensive experience’ (Alves et al. 2007:123). The stakeholders that possess these use them to influence the agenda of planning. This leads to the marginalisation of the unskilled and illiterate. The highly educated and knowledgeable stakeholders come with technical approaches and other techniques, which are applied in planning. They involve planning tools such as the Geographic Information Systems (GIS) and other technological applications. Such approaches and techniques are normally not understood by those without know-how

that is related to them. This exacerbates their marginalisation as these give more power to the stakeholders with some know-how about those techniques.

In the context of power, stakeholders who possess resources and creativity shape the agenda of planning. But, the proponents of communicative theory challenge this. Such proponents argue that power is countered by open dialogue that promotes trust, truth and mutual understanding as stated before. Mutual understanding is complemented as the requirement that leads to consensus. The strong and the weak stakeholders who are engaged in planning make such consensus. On the contrary, Harbemas, cited by Flyvbjerg (2000) states that there is nothing like consensus. In backing up this, he states that the powerful group will shape the consensus in their own favour. In this context, there is no consensus. From the Habermas perspective, one can argue that power can be a huge limit to the abilities of success of the communicative theory. Therefore, there should be an engagement of advocacy planners that will stand behind the interests and needs of the weak people in planning. Concisely, there should be an engagement of the Communicative Theory and Advocacy Theory to represent the weak people in the planning exercise.

2.12 ADVOCACY THEORY

'The advocacy theory aims at making the marginalized groups to partake fully in planning' (Sandercock, 1998: 97). That means, the advocacy planners aim at capacitating the weak and marginalized people so that they can have their interests and needs fully represented in planning.

Advocacy theory emerged in the mid 1960s in the United States (US). The reasons for its emergence involved riots and demonstrations that were initiated by the people who felt that they were underrepresented in planning. Advocacy theory traces its genesis from Paul Davidoff and it was published in the *Journal of the American Institute of Planners* in 1965. 'The idea of advocacy planning was that those who had previously been unrepresented would now be represented by advocacy planners' (Sandercock, 1998:98). In this context, the advocacy planners would go to the poor neighbourhoods, find out what those folks wanted and bring that back to the table in the planning office and city hall (ibid). One can argue that this model of planning

induces the planners to take into consideration the trends of the society. Put differently, the planner takes into account the needs of the people, their experiences and their problems. The planner goes to the people and talks to them. He or she listens to their grievances and files them. That means the planner works with the people. He or she advocates their needs and interests to make sure that they are represented in planning. In this manner, the planner views him or her as the servant of the people.

But, the advocacy theory is not without problems. The model positions the planners at the centre of the planning process (ibid). In this context, the planner interprets the problems of the people solely. In his or her own interpretation, the planner can underestimate the priorities of the poor people. This can lead to the exclusion of the poor people who are supposed to be represented in planning.

2.13 COMMUNICATIVE THEORY AND ADVOCACY THEORY IN RELATION TO ACCESS TO WATER AND HIV/AIDS BASED CAREGIVING

It is stated before that the Communicative Theory encourages story telling about the experiences of the people that are part and parcel of planning. In addition, it is already said that the Communicative Theory promotes negotiation between the planning stakeholders. Taking into consideration the above-mentioned aims of the Communicative Theory, it will be argued that the water suppliers should communicate with the HIV/AIDS based caregivers before they plan an access to water. This will help to make the water suppliers know how much the HIV/AIDS caregivers need water. Moreover, this will help to find out the water's access challenges that are faced by HIV/AIDS caregivers and HIV/AIDS patients.

Although, the Communicative Theory of planning is recommended in the context of access to water in relation to HIV/AIDS in Ivory Park (ward 77), the limitations of this theory will also be manifested. In doing so, relations of power in planning and representations of interests will be manifested.

The HIV/AIDS based caregivers, HIV positive residents participated in the protests against the provision of only six thousand litres per month for each household. This shows the lack of consideration that the HIV/AIDS based caregivers need more than six thousand litres of free water. In consideration of what is stated in the above sentence in relation to the needs of the HIV/AIDS based caregivers, the Advocacy Planning Theory will be highly recommended.

In the context of access to water, the advocacy planner will go to the people and ask them how many litres of water they want. The planner would also consult the HIV/AIDS based caregivers and patients. In doing so, he or she will be able to find out their needs for the clean water. After finding out those day-to-day needs for water, the advocacy planner will file and table them to the local municipality. In taking this initiative, the planner radically makes sure that the needs of the people for water are represented in planning. The success of the planner in this initiative will result to the delivery of more than six thousand litres of water to the HIV/AIDS affected households and HIV/AIDS based care giving institutions. This will happen especially if the local municipality has enough resources to deliver water. This was the case in the US where more advocacy planners represented the interests and needs of the poor people in planning (Ibid). These planners took the ideas of the poor people and translated them into the technical language of plans to make them forceful in the policy arena.

In terms of interpreting and translating the ideas of poor people into a planning language by the planner, the advocacy planner has to take into consideration the ideas and needs of the HIV/AIDS based caregivers and patients. This can help to make sure that their interests and needs are fully represented in planning.

2.14 COMMUNICATIVE THEORY AND ADVOCACY THEORY IN THE CONTEXT OF THE SOUTH AFRICAN LEGAL FRAMEWORK

The South African Constitution takes into account the need to have all people of the country represented in planning practise. This is done by the endeavour to make them active participants in their communities that aim at facilitating the delivery of social services such as water, electricity, sewerage and removal of waste to mention just few

examples. In this context, the municipalities are encouraged to communicate with people who are in the area of their jurisdiction. This is reflected by chapter 4, section 16 of the Municipal Systems Act 33 of 2000. The Municipal Systems Act 33 (2000:636) reveals that by stating, 'a municipality must communicate to its community information concerning:

(a) the available mechanisms, processes and procedures to encourage and facilitate community participation
(b) the matters with regard to community participation is encouraged
(c) the rights and duties of members of local community and
(d) municipal governance, management and development'

The type of information that is supposed to be communicated by the municipalities to the public is stated in section 18 of the Municipal Systems Act 32 of 2000. In passing that information, the municipalities must take into account the language preferences and usage in the municipality and spread news to people who cannot read or write. This is demonstrated by section 18 (2) (a), (b) respectively of the Municipal Systems Act 32 of 2000.

Given what is stated above, it can be noted that Communicative Theory is encouraged in the Act. The Act also talks about the meetings to be held with the public by the municipalities. The venues and agendas should be brought to the public before the meeting (Municipal Systems Act 33, 2000). People are expected to meet the officials and converse with them about the provision of basic services. The nature and extent of those services should be debated. In this context, the people of Ivory Park are encouraged to participate in planning the provision of water. Consensus has to be reached. That consensus must reflect the needs of the people for water.

In the context of Advocacy Theory, the planners and municipal officials must make sure that the needs of the people are tabled and supported in the planning offices. They must not be just voiced in meetings. They must mould the planning agenda. The success of that will result to the provision of more than six thousand litres of water to the residents of Ivory Park, ward 77. Taking into account the sections of the Act that are stated in the above paragraph, one can argue that Communicative Theory

is supported legislatively. But, that does not mean that the interests of the poor people will be represented in the planning exercise. Given this fact, Advocacy Theory should be applied. The planners must advocate the needs of the people for water as stated before.

2.15 SIMILARITIES BETWEEN COMMUNICATIVE THEORY AND ADVOCACY THEORY

Both Communicative and Advocacy Theories reveal the importance of a dialogue that has to be conducted among stakeholders, which are engaged in planning process. These two theories also encourage participation of the weak, the marginalised and disadvantaged groups in planning. Given the afore-mentioned facts, it can be argued that both Communicative Theory and Advocacy Theory can be instruments to be used by weak and marginalised people who are affected by poverty to have their needs represented in planning especially the delivery of social services such as water. Both these theories aim at attaining information from the people who are directly affected instead of using models and statistics on the planning table to get and interpret the problems of the people. In this manner, they allow people to tell their stories and speak out about their socio-economic challenges that affect them on a day-to-day basis. In addition, these theories aim at making the weak and marginalised people's concerns to shape the agenda of planning in the effort of trying to resolve their problems.

2.16 CONCLUSION

Access to water is still a challenge in many developing countries. This is the case since developing countries lack proper resources that can enable them to develop good infrastructure, which can make them access water. The lack of resources and technological competency to extract water from its sources such as bowels of the earth and big rivers made the nations of the developing countries to resort to the unreliable sources of water such as dams and rivers. Such sources normally yield poor quality water, which leads to illnesses such as waterborne diseases. The low quality of water is exacerbated by its contamination, which is made possible by incompetent industries, which use polluting technologies such as manufacturing, mining, and agricultural industries.

Access to water is faced with many challenges. Such challenges involve, poor developed water related infrastructure and privatisation of water delivery to mention just few instances. The people who have poor access to water are those who are found in locations that are peripheral from the cities. Such locations are mostly made up of informal settlements. These settlements do not follow planning standards in their processes of development. They are made up of shanties, which are severely built in contradiction with planning standards. This makes the installation of water pipes and the delivery of other social services very complex.

The South African government has realised the importance of access to water by making it a right, which is enshrined in the constitution. The constitution states that everyone has a right of adequate access to sufficient water. The constitution goes on by stating that the states must take reasonable and legislative measures to achieve the realisation of that right. The state made attempts to create access to water by implementing initiatives such as RDP and implementing policies such as Free Basic Water Policy, which gives each and every household 6000 litres of free water a month. But, some of the experts in the delivery of water and households state that the 6000 litres of free water per month is not sufficient to tackle water related domestic activities such as bathing, cooking and washing to mention just few examples.

The poor access to water in South African informal settlements is accompanied by the spread of HIV/AIDS epidemic. This is made worse by poverty, which is the order of the day in those areas. HIV/AIDS poses detrimental health challenges in many communities especially those that are poor such as informal settlements. Many people died and some of HIV/AIDS infected people are taken care of in hospitals. This created complications in hospitals as they perpetually fail to accommodate the increasing numbers of HIV/AIDS patients.

The spread of HIV/AIDS triggered a response among various groups to deal with health challenges that are posed by the epidemic. This is manifested by the formulation of the so-called HIV/AIDS based care giving initiatives. HIV/AIDS based care giving includes groups such as, among others, family groups, volunteers, friends of the HIV/AIDS infected families and faith based organisations. The common objective of such groups is to provide care for those affected or infected by the HIV/AIDS epidemic. But they differ in the nature and extent of support they provide.

Water is believed to play a huge role in HIV/AIDS based care giving. This is the case since there is a link between water and HIV/AIDS. That means, if there is access to water, the health challenges that are posed by HIV/AIDS can be tackled. But, water needs to be supplemented by other measures that aim to counter health challenges to be in a position to deal effectively with health challenges that emanate from HIV/AIDS.

It is high time for the water suppliers to create conditions of participation by the HIV/AIDS based caregivers especially in terms of access to water. They must create a platform that enables water related dialogue between the HIV/AIDS based caregivers and water delivery stakeholders. This will assist in detecting water related needs of HIV/AIDS based caregivers. This means application of Communicative Theory. The planner must go to the HIV/AIDS based care giving centres such as Philani Support Group and listen to their ideas and stories as they try to expatiate their water related day-to-day needs and challenges and table them at the planning office. In doing so, the planner must convert HIV/AIDS based caregivers' language into a planning language that can be understood by other planners and social service deliverers such as water suppliers. In doing so, the planners will start to know the water related challenges that face caregivers. As they table them in the planning office, this will mean a representation of HIV/AIDS based caregivers in planning the delivery of water. This is a way of planning from the borderland as articulated by Sandercock[12].

[12] Planning from the borderland means taking into account the needs, interests and aspirations of the poor people who are normally found in the periphery of the city. Such people are normally found in informal settlements and rural areas where access to social services such as water, electricity, removal of waste, and sewage is very minimal. Some of these areas totally lack access to such services. In addition, informal settlements lack access to socio-economic opportunities as they tended to develop in segregated portions of land (Huchzermeyer, 2002).

CHAPTER THREE

3. THE CORRELATION BETWEEN WATER AND HIV/AIDS BASED CARE GIVING

3.1 INTRODUCTION

The scarcity of water is still a problem that faces many people in the universe (Johnson et al. 2001). Water scarcity is severely accompanied by uneven distribution of wealth and resources, which affects access to water (Tilly, 2003). The uneven distribution of resources such as financial resources determines who can access water and who cannot. In addition, resources also determine the place of residence. Put simply, those with resources especially the affluent people, tend to reside in areas with advanced water delivery infrastructure such as reliable water pipes and taps. On the contrary, those without any resources such as the poor, tend to settle in areas, which have underdeveloped water delivery infrastructure. South Africa (S.A) is not excluded from these international water related trends. The water scarcity has so many implications in the lives of people. It remains a challenge in some formal and informal settlements.

Although S.A is a water scarce country, efforts to cater for water related needs of its people have been undertaken. Such efforts are manifested by payable connection of water pipes from Katse Dam, which is in Lesotho, and Reconstruction and Development Programme (RDP) initiatives (Lundhl et al. 2003). Many water delivery initiatives have been targeted towards informal settlements such as Soweto, Alexandra and Ivory Park (City of Johannesburg, 2006). These areas are affected by a scourge of HIV/AIDS epidemic, which brings so many people into death, hospices and terminal illness. Given the fact that HIV/AIDS poses detrimental challenges in such communities, there has been a focus of many researchers on socio-economic and health impacts of HIV/AIDS. In addition, as water is seen as crucial for people, there has been an extensive research on social and health impacts of water on the lives of people. But, there are some researchers who focused on water in the context of HIV/AIDS, but such experts did not adequately focus on quantity and quality of water in relation to HIV/AIDS based care giving. This is of paramount importance as it

vividly expatiates on how access to water can contribute in the initiatives that aim at countering HIV/AIDS driven health challenges, which is the focus of this research report.

This chapter looks on how water plays a role in HIV/AIDS based care giving in reference to the quantity and quality of water. This will be done by focusing on informal settlements especially Ivory Park, ward 77. This chapter will, first, start by placing its emphasis on the South African water delivery context, which is the legacy of apartheid-based delivery of social services. In doing so, there will be a brief focus on the apartheid approach to the delivery of water in S.A. Secondly, this chapter will look at the legacy of apartheid and the initiative taken to solve the water delivery problem such as the Reconstruction and Development Programme (RDP). This will be done in the context of access to water and HIV/AIDS. Ultimately, this chapter will severely reveal the correlation between access to water and HIV/AIDS based care giving.

3.2 THE SOUTH AFRICAN STATUS QUO OF ACCESS TO WATER

The victory of the National Party (N.P) in the 1948 general elections was totally a nightmare in the black dominated communities especially when it comes to the delivery of social services such as water. This was the case since apartheid prohibited infrastructural development in those areas that would capacitate them to access adequate water, which is in a good quality (Seidman, 1999). There was very minimal or no development in informal settlements.

During the apartheid system of governance and planning, black people started to be clustered in areas that were underdeveloped and informal (Mamdani, 1999). In addition, the apartheid system of planning did not develop facilities and schools that would enable people to be capacitated so that they could take control of their self and infrastructural development (Ibid). The nature of apartheid delivery of social services created a status quo where there was no consultation of the black people in terms of planning the delivery of water. They could not seat on the planning table to have a dialogue with other planning stakeholders as required by Communicative Theory. They were marginalised. In addition, the black societies were not viewed and

accepted as having a right of access to adequate water and other social services. This exacerbated lack of delivery of water in black dominated areas.

On the other side, the apartheid system of planning took concerted initiatives to develop infrastructure of white societies (Christopher, 2002). This led to the high capacity of those areas to access water. This was the case since such areas are close to city centres, which make them close to administrative institutions and opportunities (Giliomee, 2003). In addition, white societies were engaged in planning dialogues. There was an inclusion of white societies in planning (Williams, 2006). The inclusion of white societies in planning resulted to proper access to social services such as water. The apartheid system made the structures of such white only societies to have facilities such as halls, schools that created conditions for participation in planning the delivery of social services.

The approach of apartheid to the delivery of social services created a legacy that provided a colossal challenge in the delivery of water. This water delivery quagmire is elaborated in the following part of this chapter.

3.3 THE LEGACY OF APARTHEID REGARDING ACCESS TO WATER

3.3.1 Spatial legacy in the context of access to water

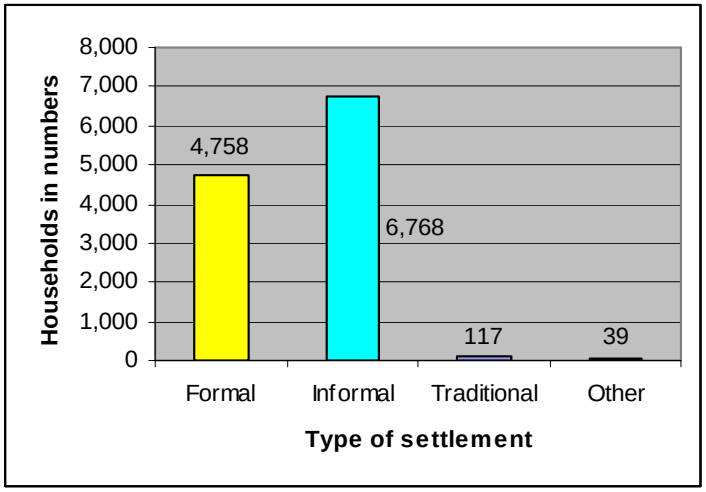
The apartheid legacy regarding spatial elements is vivid in informal settlements. Administration and planning tools of apartheid, which were associated with the delivery of social services such as Black Administration Act of 1927, and Black Local Authorities created these adverse elements. The tools of apartheid planning resulted to a huge spatial fragmentation in S.A (National Spatial Development Framework, 2007). Spatial fragmentation made the delivery of water and other social services to be very costly (Ibid). This is the case because of the great distances found among black dominated residential areas. Such large distances require very long water pipes to connect black areas to reliable and advanced sources of water.

In addition, the destabilisation policies of the apartheid system led to the unplanned clustering of black people in areas that are far away the city centres (Sachs et al.

2000). In those areas, they built shacks. Such places are not conducive for the delivery of water. These areas have no structure.[13] Their development is uncontrolled since people just come and construct shacks without any consideration and application of planning regulations (Huchzermeyer, 2002). This complicates delivery of water in those areas.

Ivory Park, ward 77 is also a manifestation of the apartheid legacy. The informal settlement is far away from the city, which is that of Johannesburg. It has no adequate access to water. The water that is accessed is found in great distances (Statistics South Africa, 2001). Some sources of water are not safe. This is the case because of high levels of pollution in the area (City of Johannesburg, 2002). In addition, some sources of water are not reliable (Ibid). This leads to periods where people cannot access water. There is also an uncontrolled development of the area (Ibid). Uncontrolled development is on the increase since there are people who come from different provinces of S.A and from other countries such as Zimbabwe (Zimbabwe Independent News Agency, 2006). This uncontrolled and fast growing clustering of people enhanced demand of water in ward 77. The following figure reveals the people who reside in informal settlements in comparison with those who are living in formal settlements. Basically, it shows the dwelling type of residents of ward 77 in 2001.

Figure 2: the representation of dwelling types of ward 77 households in 2001.



Source: Statistics South Africa (2002) Informal Settlements

[13] This idea is premised on the fact that informal settlements are built without considering the installation of the basic services related infrastructure that can facilitate the delivery of basic services such as water, sewage, and electricity to the residents. This is viewed as a structural or spatial related problem.

According to the above figure, the households who lived in informal settlements in Ivory Park, ward 77 constituted 6768 in 2001. The figure also shows that there was 4758 households who were living in formal settlements in the very same year (2001). In addition, the figure also reveals that there was 117 households who lived in traditional areas. These areas were made up of mud shelters. The figure finally depicts the category of the other, which is made up of 39 households. This category includes households who built plastic shelters for themselves to use as homes.

Judging from the above stated statistical analysis, it can be concluded that the households who lived in informal settlements in 2001 exceeded those who resided in formal settlements in Ivory Park, ward 77. The households who reside informally are on the increase. This is also revealed by Statistics South Africa (2001) when it reveals that there was 4872 households who resided informally in 1996. The great number of households, which reside informally means that there are more people who have no access to water as compared to those who have access.

The spatial problem, which is the legacy of apartheid, also complicates the installation of water related infrastructure (Christopher, 2001). This happens since the structures of informal settlements are not properly arranged in a way that allows suitable development. The shacks that are built in informal settlements make it difficult to install water pipes that aim at delivering water inside those informal settlements (Ibid). There is a need to restructure those areas to facilitate the installation of water infrastructure. These spatial trends also prevail in Ivory Park, ward 77. This complicates access to water. Many residents have to get out of their shacks to get water in huge distant areas.

3.3.2 Socio-economic legacy in relation to access to water

The apartheid planning also left many people of peripheral informal settlements jobless (United Nations Development Programme, 2007). This made many of them to earn very low salaries and some to live below the poverty line. This situation compromises their capacity to purchase additional litres of water that are required to carry out domestic activities such as cooking and bathing to mention a few examples. In the following is the table, which shows different earnings of people in ward 77.

The earnings of households in Ivory Park, ward 77 in 2001

Table 3: Annual incomes of ward 77 households in 2001.

Amount of Annual income	Households in numbers	Year
None	4182	2001
R1 - 4800	711	2001
R4801 - 9600	1416	2001
R9601 - 19200	2640	2001
R19201 - 38400	1815	2001
R38401 - 76800	672	2001
R76801 - 153600	156	2001
R153601 - 307200	27	2001
R307201 - 614400	15	2001
R614401 - 1228800	6	2001
R1228801 - 2457600	30	2001
Over R2457600	15	2001

Source: Statistics South Africa (2001) Incomes in Ivory Park

The above table shows that, in 2001, R4182 households did not have any source of income annually. The 711 households have an income that ranged from R1 to R4800. The 1416 households had income, which ranged from R4801 to R9600. In addition, there were households who had incomes that ranged from R9601 to R19200. The other income ranges are depicted as one goes along the figure to the bottom.

The most relevant category of households in the figure is that which shows that there was 4182 households who had no income annually. These are people who live informally in Ivory Park, ward 77. Their lack of income makes them live in abject poverty. This situation makes them not to access water. After the finishing of 6000 litres of water, which have to be delivered to each household monthly, they tend to lack money to buy additional litres of water. This brings a compromise to their sanitation standards.

Demographically, the category of people with low incomes, which compromise their access to water, are Africans. Africans dominate Ivory Park, ward 77. Their number constituted 38521 in 2001 (Statistics South Africa, 2001). They have low educational levels that, *inter alia*, make them unemployable.

On the other hand, in Ivory Park, there are very few whites that are educated and earning very high (Ibid). They have reliable access to water. They fetch water in very short distances such as from taps in their yards and in houses. They make up a minority in Ivory Park and they reside formally. The type of water they get is in enough quantity and in a high quality. The Africans who reside informally do not have sufficient water and they reside informally. 'Africans are the people who are severely affected by HIV/AIDS' (Bruyn, 2004:93). The most of them makes up the poorest of the poor. The demand for water is not stable, but it is increasing as there is a constant, abrupt and uncontrolled inflow of people.

3.4 ACCESS TO WATER AND HIV/AIDS IN WARD 77

The poor access to water in ward 77, which is accompanied by poverty, makes the residents vulnerable to HIV/AIDS driven health challenges. There are so many people in Ivory Park, ward 77 who are infected by HIV/AIDS (City of Johannesburg, 2003). Some are taken care of by their families, some are placed in HIV/AIDS based care giving centres such as Philani Support Group to mention just one example of the centres. This is an initiative that aims at dealing with health challenges that are posed by HIV/AIDS in Ivory Park societies and households. 'In taking care of the HIV/AIDS infected and affected households, Philani Support Group does the following:

- Organising education on primary health-care for HIV positive people
- Organising pre and post HIV test counselling
- Organising and co-operating home-based care for AIDS-patients
- Provide and organise support for Aids-orphans
- Organise ongoing training of the members, and others, in order to fulfil the different objectives of the organisation
- Participate in the disclosure about Aids
- Participate in the change of lifestyle necessary to curb the spread of the virus
- Work together with organisations having similar objectives' (Missionaries of Sacred Hearts, 2004:4)

Like in other areas, females in Ivory Park execute the HIV/AIDS based care giving. This is also the case in ward 77. The ward 77 female caregivers are people who are mostly uneducated and unemployed. They live below the poverty line and they are African. They lack adequate access to water. But, the Statistics South Africa (2001) reveals that there has been an improvement in the number of residents who have access to water. The following figure represents households that lack access to water in ward 77.

Access to water in Ivory Park, ward 77 in 2001

Table 4: representation of ward 77 households with access to water in 2001.

SOURCE	NUMBERS OF HOUSEHOLDS	YEAR
Water within dwellings	840	2001
Water inside yard	7899	2001
Community stands	1761	2001
Community stands (over than 200 metres)	864	2001
Borehole	0	2001
Spring water	0	2001
Rain tank	3	2001
Stagnant water (dam/pool)	0	2001
Rivers or streams	9	2001
Purchases	3	2001
Other	300	2001

Source: Statistics South Africa (2001) Access to water in Ivory Park

The above figure reveals that, in 2001 there was about 840 households that were able to access water within their places of residence. The 7899 households were able to access water inside their yards. There were those who had to travel to the community stands to fetch water. These residents constituted 1761. They did not have water in their own dwellings or yards. The figure also reveals that 864 households had to travel more than 200 metres to fetch water to use for domestic activities. If such people are engaged in HIV/AIDS based care giving, they become absent as they have to travel some moments to fetch water. This is not good for effective HIV/AIDS based care

giving. At the bottom of the figure the category of the other makes up 300 households. These households have no stable source of water. They get it from any source. They even ask it from other households. Taking this into consideration, one can argue that their access to water depends on the mercy of other households. In addition, they get water from rivers and dams. The river is polluted and it can bring their health into a compromise by leading to illnesses (City of Johannesburg, 2002). This poor access to water is accompanied by poverty. Those who are engaged in HIV/AIDS based care giving do not have adequate money to purchase additional litres of water to take care of HIV/AIDS patients which have a high demand for water as compared to other households that are not infected by HIV/AIDS.

As the Statistics South Africa (2001) reveals that it is the Africans that dominate the population of Ivory Park, this is also the case in ward 77 (Statistics South Africa, 2001). It is clear that African females dominate the number of HIV/AIDS based care givers and they lack access to adequate water. The authorities that are involved in planning the delivery of water in ward 77 do not consult them and their water related needs are not taken into account in planning the delivery of water.

3.4.1 Quantity of water and HIV/AIDS

The number of litres of water to be utilised by HIV/AIDS based caregivers and other HIV/AIDS affected households are very crucial in dealing with HIV/AIDS driven health challenges. This means, litres of water, which is accessed, should be adequate to tackle all the domestic water related activities. The scarcity of it will complicate the execution of domestic activities that demand water. In this context, the water suppliers have to make sure that water that is supplied to people is adequate. This should be done by consulting the community, which is viewed as the recipient of water that is supplied. That dialogue should provide a platform for recipients of water to air the amount of litres that are necessitated to tackle domestic water related activities.

In taking into account the quantity of water that has to be utilised by a HIV/AIDS unaffected households, Engelbrecht (2005: 6 quoted in Makgabo, 2005:94) states that ‘it is estimated that it is only 6000 litres of water per month that can be able to cater

for all domestic water related activities'. Such 6000 litres of water per month is assumed to be consumed by an unaffected HIV/AIDS household of six members. The following table shows the calculations of Engelbrecht, which were made in 2005.

Consumption of water by a household which is made up of six members per month.

Table 5: representation of water consumption per month by an HIV/AIDS unaffected household with only six members in 2005.

EACH TIME	MONTHLY
Kettle consumes 1.5 litres	4000 Kettles
Kitchen Sink 30 litres	200 times
Bath 200 litres	40 times
Automatic washing Machine 50 litres	120 times
Toilet Flush 12 litres	500 times
Total litres used per month	*6000 litres*

Source: Makgabo, T. (2005) Calculations of 6kl/6000 litres per households per month

The above table shows that it is only 6000 litres of water per month that has to be consumed by HIV/AIDS unaffected household with six members. This conclusion manifests lack of consultation and proper household setting of people who reside in many informal and formal settlements of S.A. This assumption is based on the fact that the maximal number of household member in S.A constitutes only six people. There are many households, which constitutes more that six members. Such households' demand for water is automatically high reflecting the bigger number of household members. This is manifested by Manyathi who heads a household of 12 members in Ivory Park, when she said, 'the 6,000 litres supplied free often run out in 11 days for those with big families like me. After that, the meter cuts the supply, and I have to pay more for additional water. On average, the household can go for up to six days per month without water because we do not have the money. We are all unemployed' (Investor Relations Information Network, 2006:3). This shows that big households lack access to adequate amount of water to carry out their domestic water demanding activities.

Taking into account what is stated in the above paragraph, there is a need to consult the communities especially in water related planning that aims to water delivery. This will assist in finding out the number of litres of water, which are demanded by different households in relation to their day-to-day domestic activities that require water. The above paragraph also shows different patterns of demand for water by different households. That means, the bigger the household, the greater the number of litres of water, which is demanded by that household. On the other hand, the smaller the households, the lesser the number of litres of water that are demanded by that household. The supply of water has to take into account the different demands for the litres of water that has to be consumed by different households.

In addition to the quantity of water, 'the Free Basic Water policy also requires only 6000 litres of water to be delivered to every household of S.A per month' (Hall et al. 2006:58). Like Engelbrecht's (2005) calculations, show that the policy fails to reflect the different patterns of households in the country. This makes so many households to run out of water for many days as revealed by Manyathi. As the number of household's members affects the demand for water, the HIV/AIDS driven health problems also affect the demand for water (International Water and Sanitations Centre, 2007). That means, the litres of water demanded by the HIV/AIDS affected households are higher that their counterparts who are not HIV/AIDS affected. This is revealed by Phukube who is a Home Based caregiver when she said, 'The 590 rand ($82) foster-care grant she receives each month is insufficient to provide the basic needs and pay for adequate water supplies. Phukube said, the free supply of water lasts only six days, but that is only if we try our best to save it. The patient needs more water for regular bathing, and they drink a lot per day. When the water runs out, residents are forced to hire vans for up to 20 rand ($2.75) per person to bring water from wherever they can successfully beg for it. Many neighbours are less willing to share' (Investor Relations Information Network, 2006:2). This reveals that HIV/AIDS based care giving requires adequate litres of water to make it effective. In the context of supplying adequate litres of water, the water suppliers should make sure that sources are reliable. But, the 6000 litres of water that are supplied to the households per month fails to take into account the increased demand for additional litres of water that are needed by the HIV/AIDS affected households.

There is a dire need to assess the quantity of water that is provided in dealing with the HIV/AIDS posed health challenges and to facilitate effective HIV/AIDS based care giving. That initiative should also take into account the number of the HIV/AIDS patients that are taken care of. This now reveals that, the greater the number of patients, the greater the amount of litres of water which are necessitated to execute and maintain effective HIV/AIDS based care giving.

Although there should be more litres of water to be accessed, its abundance means nothing if it is not in a good quality. This is the case because it is the quality of water that makes it consumable without any harmful effects to the people. In the following is the analysis of quality of water in the context of HIV/AIDS based care giving.

3.4.2 Quality of water and HIV/AIDS

The residents of informal settlements have experienced water related diseases because of consuming water which in a low quality (Boyd et al. 2006). This type of water becomes contaminated by very close industries, which are severely located near to the sources of water. Such industries include mining and agriculture to mention just few instances. In addition, the faeces of informal settlement's residents contaminate water since they normally lack toilets (Ibid). This is normally termed as water pollution and it is against the quality of water. In Ivory Park, the farms that are close to the area contribute to factors that compromise the quality of water. This is done in the form of water pollution. Water pollution is visible in the river that runs through Ivory Park. This is revealed by the City of Johannesburg (CoJ) by saying, 'A highly polluted river - more polluted than water reaching sewage farms - runs through the area' (City of Johannesburg, 2002:4). In addition, the quality of water in the informal settlements of Ivory Park is compromised by hazardous waste dump. This waste is dumped in areas that are very close to the sources of water such as rivers and dams (Ibid). The combination of the above-stated factors causes a huge contamination of water, which creates a difficult situation for the residents to get drinkable water.

The water that is in a low quality, which is contaminated water, brings HIV/AIDS based care giving into a big compromise. This is the case since contaminated water leads to illnesses. In the context of HIV/AIDS, it can be argued that contaminated

water leads to opportunistic infections. These opportunistic infections place the health of HIV/AIDS patients at risk. The water that is in a low quality does not end there as it also leads to health problems for the HIV/AIDS based caregivers. HIV/AIDS based caregivers need water which is in a good quality to execute effective care.

As the apartheid system led to so many spatial and socio-economic problems which negatively impacted on the delivery of water as well as its quantity and quality in informal settlements such as Ivory Park, ward 77, it is important to consider briefly the initiative that was taken by the new democratic government that aimed at addressing challenges of access to water. The notable initiative that is looked at in this report is Reconstruction and Development Programme (RDP).

3.5 RECONSTRUCTION AND DEVELOPMENT PROGRAMME

RDP is the socio-economic policy framework which was implemented by the African National Congress (ANC) led government under the leadership of Nelson Mandela after months of consultations, discussions and negotiations between the ANC, its alliance partners the Congress of South African Trade Unions (COSATU) and the South African Communist Party (SACP) and mass organisations in a wider civil society (African National Congress, 1997). RDP aims to address the socio-economic and spatial problems that were created by the apartheid regime (Ibid). Specifically, it sets its sights on alleviating poverty and addressing the massive shortfalls in social services across the country. Such social services include, *inter alia*, delivering water to the masses of the people with no access to water who live formally, informally in urban areas and those who reside in rural areas (Ibid). This is the case since RDP considers ‘water as the basic need to be provided in a manner that will meet everyone’s health and other crucial requirements for now and in the near future’ (African National Congress, 1997: 6).

By focusing on creating the delivery of water that will meet everyone’s health, one can argue that RDP recognizes the importance of quality of water. That means, RDP aims at delivering water which results to no harmful effects on the citizens of the country. This can assist HIV/AIDS based care givers in their efforts of providing safe and effective care for the HIV/AIDS patients. In addition, the water of good quality

can assist HIV/AIDS based car givers not to be susceptible to diseases that can be caused by contaminated water.

3.6 HIV/AIDS AND SOUTH AFRICAN INFORMAL SETTLEMENTS

The HIV/AIDS epidemic remains a global health disaster. This is divulged by AMREF (2006) which says, 'sub-Saharan Africa (SSA) harbours nearly 65% of the estimated 40.3 million people living with HIV/AIDS in the world in 2005. AMREF (Ibid) goes further by stating that in 2005, there was 4.9 million new infections in the world, 3.2 million (65%) of them in SSA. This is said to be the largest infection since the commencement of the epidemic. The largest number of infections was found in marginalized communities' (AMREF, 2006: 2). Women are more vulnerable than men. This is evidenced by a huge number of women that are infected as compared to that of men (Ibid). That means there is an urgent need for strategies that aim at alleviating the susceptibility of women to HIV/AIDS epidemic.

'New infections are now frequent among young people particularly those that are between 19 and 24 years of age. It is at least three times higher among girls than boys of the same age. Moreover, the association between HIV infection and other infectious diseases, especially malaria and TB, has exacerbated the negative impact of not only HIV/AIDS but also of these other infections. Tuberculosis (TB) control efforts have been hampered by the escalating HIV/AIDS epidemic to an extent that TB has now been declared an emergency on the African continent' (AMREF, 2006:4). In considering the above facts about HIV/AIDS, it can be argued that HIV/AIDS infection and prevalence are different among genders. This is also the case in S.A. women are more vulnerable than men. This is made, among other things, by a huge dependency of women on men. This happens since women tend to be unemployed than men (Statistics South Africa, 2001). This makes men to dictate all the terms of love affairs including how sexual intercourse is done (Tomlinson, 2007). Men dictate the use and non-use of condoms without any women's say or approval. This exposes them to high risk of being infected by HIV/AIDS. These aforementioned trends are severely found in informal settlements. Ivory Park, ward 77, which is a focus of this research report, is one of the examples. In Ivory Park women are severely illiterate, uninformed and extremely susceptible to HIV/AIDS.

According to AVERT (2007) one in five of adults in S.A is HIV positive. But, the Treatment Action Campaign (TAC) (2007) states that at least one in ten people in South Africa is HIV-positive. TAC goes on by stating, 'We are sure that three out of every ten women who attend public antenatal clinics is HIV-positive. We know with similar confidence that up until 2003 several hundred thousand people died of AIDS. We are also sure that relatively few people had HIV in 1990 but that the epidemic exploded over the next decade and that mortality from the epidemic has increased steadily, such that many more people died of AIDS in 2003 than 2002 and many more people died of AIDS in 2002 than 2001 and so on. We are sure that in 1997 most adults in South Africa died when they were over 60. This has changed. By 2000 most adults were dying in their 20s, 30s and 40s' (TAC: 2007:6). For each person living with HIV/AIDS in South Africa not only does the epidemic impact on their lives, but also on those of their families, friends and communities.

With antiretroviral (ARVs) drug treatment, HIV-positive people can be in a position to maintain the good status of health (Ibid). This can also make them to be able to relatively live normal lives without any fatalistic vulnerability to opportunistic infections that can lead to their health weaknesses. Unfortunately, few people in S.A with access to ARVs. This makes AIDS death to be high in the country. 'It is thought that almost half of all deaths in South Africa, and a staggering 71% of deaths among those aged between 15 and 49, are caused by AIDS. So many people are dying from AIDS that in some parts of the country, cemeteries are running out of space for the dead. A recent survey found that South Africans spent more time at funerals than they did having their hair cut, shopping or having barbecues. It also found that more than twice as many people had been to a funeral in the past month than had been to a wedding' (AVERT, 2007:7).

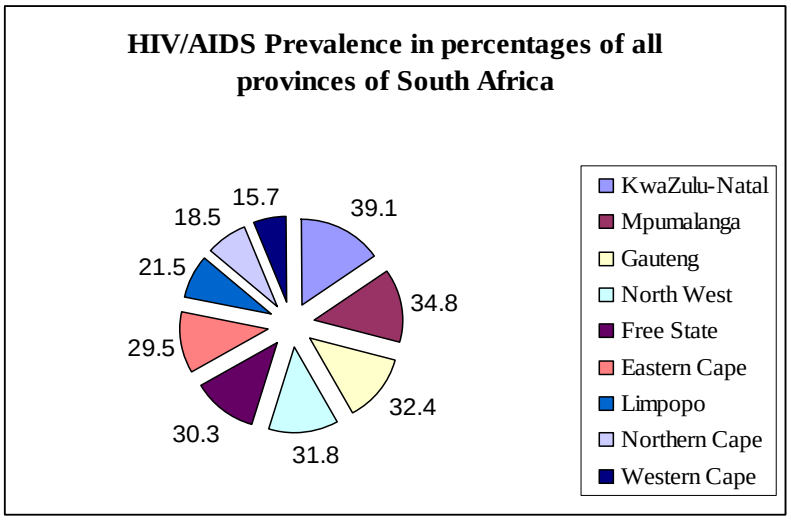
The HIV/AIDS epidemic has a devastating impact on the country's socio-economic progress. This is manifested by AVERT when it issued the following devastating facts.

- 'Average life expectancy in South Africa is now 54 years – without AIDS, it is estimated that it would be 64. Over half of 15 year olds are not expected to reach the age of 60.

- Between 1990 and 2003 – a period during which HIV prevalence in South Africa increased dramatically – the country fell by 35 places in the Human Development Index, a global directory that ranks countries by how developed they are.
- Hospitals are struggling to cope with the number of HIV-related patients that they have to care for. In 2006 a leading researcher estimated that HIV-positive patients would soon account for 60-70% of medical expenditure in South African hospitals.
- Schools have fewer teachers because of the AIDS epidemic. In 2006 it was estimated that 21% of teachers in South Africa were living with HIV".
- The HIV infections are still accumulating. This is revealed by the Avert when it released its findings about the HIV/AIDS prevalence' (AVERT, 2007:6)

The following figure dipicts the HIV prevalence for the provinces of SA.

Figure 3: representation of HIV/AIDS prevalence in South Africa.



Source: Avert (2007) Estimated HIV prevalence among antenatal clinic attendees by province

According to the above figure, the KwaZulu Natal province is leading in terms of prevalence. This is demonstrated by 39.1 %. The Gauteng province which is the focus of the research is number three. This is demonstrated by 32.4% in the pie chart. The

huge part of that prevalence is found in informal settlements such as those of Ivory Park, Soweto and Alexandra to mention some few instances.

The AIDS pandemic has posed so many health challenges in the informal settlements of SA (AIDS Foundation, 2005). 'The rate of HIV/AIDS infections in formal settlements is higher than those in the formal settlements' (AIDS Foundation, 2005:5). There are many factors that cause this high HIV/AIDS rate in the informal settlements. Such factors include gender inequality, cultural factors and very low socio-economic status of the residents especially women to mention some few examples (bid). The HIV/AIDS epidemic led to the deaths of many people in the informal settlements. Some of them are in hospices where they are taken care of.

According to AVERT (2007), there are a variety of factors that have been blamed for the rapid rise of HIV/AIDS prevalence in S.A. In S.A HIV/AIDS was diagnosed in 1982 (AVERT, 2006). AVERT (2007) states that 1,500 HIV infections occur everyday. Although initially HIV infections seemed mainly to be occurring amongst gay men, by 1985 it was clear that other sectors of society were also affected (Ibid). Avert (Ibid) reveals that since 1999, HIV/AIDS prevalence among pregnant women has been on the increase in S.A. In the following is the HIV/AIDS prevalence among pregnant women since 1999 that is revealed by AVERT (2007).

- '1999 - The HIV prevalence rate among pregnant women was 22.4%.
- 2001 - The HIV prevalence rate among pregnant women was 24.8%.
- 2003- The HIV prevalence rate among pregnant women was 27.9%.
- 2005- The HIV prevalence rate among pregnant women was 30.2%' (AVERT, 2007:15).

This above prevalence rates also include Ivory Park. They are increasing instead of declining. On the contrary, the prevalence of HIV/AIDS on pregnant women for 2006 is said to be dropping. This is revealed by the South African Department of Health in July 2007. The department revealed that the prevalence of pregnant women for 2006 is 29.1. The decline is very minimal. This shows that HIV/AIDS prevalence is still high. In addition, the antenatal survey done by the department in revealing those statistics did not include all pregnant women in informal and formal settlements. In

addition, the survey only focused to women who use public hospitals. It did not include those who use private hospitals. Given these facts one can argue that the decline is a reflection of many women that did not participate in it. The prevalence of 29.1 is still high and this reveals that HIV/AIDS remains a problem. There is a lot of work that has to be done by HIV/AIDS based caregivers. This is expected to happen since in poverty stricken societies such as Ivory Park, the transition between HIV towards AIDS is very short. Water is part and parcel of efforts that aim at dealing with HIV/AIDS challenges.

The focus of RDP on delivering water that aims at meeting crucial requirements for now and in the future means a realisation of providing adequate amount of water to the people. The provision of water has to be balanced with the needs of the people as stated before. This can assist HIV/AIDS based caregivers. This is the case since adequate water means that HIV/AIDS based caregivers have sufficient water to carry out their care giving roles.

The above stated water related and HIV/AIDS based facts and issues reveal a role that can be played by water in HIV/AIDS driven health challenges. As argued in the above paragraphs, it can be said that such challenges frequently face caregivers and patients. Taking into consideration all the facts and issues that are elaborated above, it is now very important to consider how water can play a role in dealing with HIV/AIDS driven health challenges.

3.7 THE CORRELATION BETWEEN WATER AND HIV/AIDS BASED CARE GIVING

Firstly, it has to be noted that water cannot cure HIV/AIDS. Similarly, water alone cannot provide a HIV/AIDS based comprehensive care giving. There is a need to apply ARVs, and other social services such as electricity, removal of waste including the addressing of poverty and malnutrition to mention just few examples. But, water can be utilised in initiatives that aim at dealing with HIV/AIDS driven health challenges. This is the case since water helps to attain hygiene. In areas where there is no access to water, hygienic standards become low. Water plays a huge role in cleaning the places where HIV/AIDS patients are taken care of. This does not end

there as water also helps in cleaning the hands of the HIV/AIDS based caregivers. This is the case since caregivers have to regularly wash the linens and clothes that become dirty as a result of excessive diarrhoea incurred by the patients. This helps in countering some infections that are associated with the lack of hygiene.

'It is universally proven that the lack of hand washing, which is necessitated as one of the hygienic requirements, in hospitals and clinics by nurses contributes to the transmission of infections' (Lancet, 2005:3). The litres of water have to be enough to counter the dirt that results from diarrhoea, constant bleeding and other dirty fluids that come from the patients. In this manner it is important to consider the following comments made by one of the HIV/AIDS based caregivers, Sofi Phukube. Phukube said, 'the free supply of water lasts only six days, but that is only if we try our best to save it. The patient needs more water for regular bathing, and they drink a lot per day. When the water runs out, residents are forced to hire vans for up to 20 rand ($2.75) per person to bring water from wherever they can successfully beg for it. Many neighbours are less willing to share' (Investor Relations Information Network, 2007:5). This reveals that there is a need to enhance the litres of water to provide and maintain HIV/AIDS based care giving.

Water also plays a role of countering dehydration, which is very detrimental to the health of the patients (Borderland Sciences Research Foundation, 2007). In countering dehydration patients have to drink a lot of water. But, the water, which has to be ingested by patients, has to be in a good quality. In this manner, it must not lead to harmful effects for patients. This can be very detrimental to the patient as cholera can be faced with the already compromised immune system. The compromised immune system fails to counter the diseases and this leads to deaths for the patients. This reveals that there is a need for water to be in a good quality. Water also cools the patients during very hot temperatures as stated before. This is one of the biological functions of water in the body of a human being. 'Water regulates body temperature' (College of Tropical Agricultural and Human Sciences, 2007:4). A regular drinking of water makes the cooling of patients possible.

Water is very important in cooking for patients. The water, which is used for cooking, should be uncontaminated to facilitate better health of patients. Water should always

be available to facilitate cooking, as HIV/AIDS victims have to eat regularly. Clean water results to clean and healthy food (Hayes, 2003). 'Public health and food safety experts estimate that millions of episodes of illnesses annually can be traced to contaminated food and water' (Hayes, 2007:5). This reveals that clean water is extremely important to persons infected with HIV/AIDS. Hayes (Ibid) goes on by stating that 'A compromised immune system causes people with HIV/AIDS to be more susceptible to food-borne illness from eating foods that are unsafely handled and poorly prepared and from using contaminated water from unsafe sources. Food that is prepared by the use of contaminated water can lead to illnesses such as diarrhoea, nausea, and vomiting that can lead to weight loss. These illnesses can be minimized or prevented if proper precautions are taken' (Hayes, 2007:9). Such precautions should involve cleaning of water and make it more accessible in sufficient quantities to the patients and caregivers. In the context of cooking, water also facilitates eating. The well-prepared or boiled food becomes easy to swallow. This is very helpful for the patients with thrush in their mouths.

In addition, water plays a role in the so-called formula feeding. Formula feeding is applied to children with HIV/AIDS positive mothers. Formula feeding is sometimes called bottle-feeding. The aim is to prevent the so-called mother-to-child transmission of HIV. 'Mother-to-child transmission (MTCT) of HIV is one of the major causes of HIV infection in children. It is estimated that about 600 000 children are infected in this way each year. This figure accounts for 90% of HIV infection in children in S.A. Unless preventive measures are taken such as Nevirapine for mother and baby, up to 40% of children born to HIV-positive women are infected. HIV can be transmitted from an infected mother to her baby either

- Via the placenta during pregnancy,
- Through blood contamination during childbirth, or
- Through breastfeeding' (Health 24, 2007:1).

Formula feeding is used as an alternative to breastfeeding. Without water, formula feeding becomes impossible. The HIV/AIDS positive mothers need to have access to adequate amount of water. That access has to be reliable so that it can be able to keep on playing its role in feeding children of HIV/AIDS positive mothers. If the HIV/AIDS positive mothers do not have access to water, food for their children will

be unavailable. This can result to malnutrition and poverty. It is important to note that the type of water to be accessed by HIV/AIDS positive mothers has to be in a good quality. That means, it should be uncontaminated so that it must not leads to infections. It is noted that in many countries of sub-Saharan Africa access to clean water complicates the formula feeding. This is the case even in informal settlements such as Ivory Park, ward 77.

Water is of paramount importance for the medication of patients. Treatment requires water. This happens since water facilitates the taking of treatment. Precisely, water makes the swallowing of pills easy. Without water, the swallowing of pills becomes difficult. This happens since mouths of HIV/AIDS patients normally develop thrush. This enhanced the role of water as it facilitates the swallowing of pills. In doing this, water helps in providing an effective HIV/AIDS based care giving.

In addition, clean water helps in the bathing of HIV/AIDS patients (United Nations Children Fund, 2004). This happens since, those HIV/AIDS patients which are in the advanced stage of HIV/AIDS experience regularly and incontrollable diarrhoea. In doing this, the patients make themselves dirty. In countering this, the HIV/AIDS based caregivers have to wash them. This also assists in creating good hygienic standards, which are necessary for the health of the patients and caregivers. Even in situations where there is no diarrhoea, patients have to be cleaned up constantly for hygienic purposes.

In addition, water is also necessitated to wash the clothes of HIV/AIDS based caregivers and those of patients. The clothes of patients demand more water since they have to be washed regularly. This happens as a result of repeated diarrhoea, bleeding and vomiting. These health problems normally occur on patients who are at the advanced stage of HIV/AIDS. The HIV/AIDS based caregivers need a lot of water to wash clothes. In situations where there is no water, the hygienic standards become compromised. This exposes caregivers and patients to the risk of additional infections especially those that are associated with a lack of sanitation. It should also be noted that, water, which is utilised for washing the clothes of patients, should be in a good quality. This can assist in preventing water-related opportunistic infections.

In flushing the toilets water is necessitated. The amount of water to be used for this purpose should be enough. It is argued that, toilets should be close to the HIV/AIDS patients. This is the case since the patients fail to walk long distances to toilets. This means that toilets should be at home. These are the type of toilets that are assumed to be very close and conducive for HIV/AIDS based care giving. Such toilets need a lot of water to flush the faeces of the patients. The long frequent periods of diarrhoea makes patients to use flushing toilets extensively. In this context, the demand for water to be used becomes high. This is manifested by more litres of water to be used per day in flushing the toilets. This shows that, water supplies need to consider this when planning the delivery of water. In situations where there is no adequate water, the flushing of toilets stops. This is also revealed by Manyathi when she said, 'we have adopted stringent water-conservation measures like flushing the toilet a maximum of two times a day, sharing baths and re-using water for washing clothes and kitchen implements' (Investor Relations Information Network, 2006:3). Taking this into consideration, it can be argued that insufficiency of water makes the flushing of toilets difficult and it compromises good hygienic standards. Moreover, this complicates HIV/AIDS based care giving.

Cleaning HIV/AIDS based care centres also requires sufficient water. In situations of uncontrolled diarrhoea, the patients unintentionally release the faeces on the floors. They also vomit on the floors. Some times such faeces and vomits become mixed with blood (Philani Support Group, 2007, pers. comm. 10 Aug.). This required a lot of water to clean up the floors. When it is easily accessed with convenience and reliability, the HIV/AIDS based caregiver's job becomes easy. When water is insufficient, care giving becomes difficult as the caregivers cannot clean the floors or their places of HIV/AIDS based care.

The HIV/AIDS based caregivers are severely encouraged to plant vegetables in their areas of care giving. This occurs since the patients need to eat a lot of vegetables to maintain good health. Such vegetables need to be irrigated. The lack of water by the HIV/AIDS based care giving centres makes the tilling of vegetables impossible. This disrupts an effective HIV/AIDS based care in HIV/AIDS based care giving centres. The water that has to be used for irrigation purposes must be sufficient and it should be in a good quality. This should be the case so that vegetables can grow and be

healthy. If water that is used for irrigation purposes is contaminated, the irrigated vegetables will perish.

3.8 CONCLUSION

The legacy of apartheid is still severe in informal settlements. This is the case because they lack good water related infrastructure networks such as water pipes that facilitate access to water. The lack of access to water in informal settlements is accompanied by poor socio-economic conditions. Such conditions include, *inter alia*, abject poverty, low unemployment rate and diseases to mention just few examples. The legacy of apartheid in informal settlements is the opposite of that which is in formal settlements. In formal settlements there are developed water related infrastructure networks such as reliable and good quality water pipes and tapes that make them able to access water. This is coupled by good socio-economic conditions such as, *inter alia*, high employment rate, low levels of poverty and high literacy rates. The discriminatory planning of apartheid regime created the above stated diversity between the settlements.

The government led by the ANC inherited the legacy of apartheid. Initiatives that aimed at facilitating the delivery of water and other social services were formulated and implemented. RDP is a case in point. RDP aimed at creating access to water by all residents of the country. In the aim to attain access to water, RDP operated in a broad way by incorporating the urban and rural residents. There are some achievements that have been noted. But, there are still many residents both in urban and rural areas that lack access to water.

The poor access to water is accompanied by a widespread of HIV/AIDS. Although the Department of Health released statistics that reveal a decrease in the HIV/AIDS prevalence among pregnant mothers, the health challenges that are driven by HIV/AIDS are still severe. This shows that there is a need of HIV/AIDS based care giving.

Water plays a huge role in HIV/AIDS based care giving. This is the case since water assists in bathing HIV/AIDS patients and in washing their clothes. Water does not end

there. It assists in cooking for the patients and in encountering dehydration, which is a result of diarrhoeal illness. Water plays a role in cleaning the places where HIV/AIDS patients are taken care of. This is done with the intentions to maintain good hygienic standards, which are very crucial for HIV/AIDS patients and caregivers. Ultimately, water also assists in cooking for the patients. But, for water to play a meaningful role in HIV/AIDS based care giving, it must be in adequate quantity and quality. In terms of quantity, the litres of water have to be sufficient to carry out HIV/AIDS based care giving water related activities. In considering quality, water has to be drinkable to the extent that it does not lead to detrimental effects for the HIV/AIDS based caregivers and patients.

CHAPTER FOUR

4. ANALYSIS OF RESEARCH FINDINGS

4.1 INTRODUCTION

This chapter places its emphases on the presentation and analysis of the research findings gathered from the previous chapters and from the care giving institution that has been interviewed which is Philani Support Group. It intends to divulge the role of water in tackling HIV/AIDS driven health challenges by the use of those findings. In the presentation and analysis of findings, it will be manifested that there are direct roles that are inevitably played by water and indirect factors that determine the level of access to water which make possible the tasks that are associated with water in tackling HIV/AIDS driven health challenges. The direct roles constitute, bathing the HIV/AIDS patients, cooking for the HIV/AIDS patients, cleaning HIV/AIDS patients and HIV/AIDS based care-giving places including countering diarrhoeal challenges.[14] The indirect factors that determine the role of water include poverty, which is perpetrated by unemployment, voicelessness and resourcelessness, community safety, stigma and water related infrastructure such as easily damaged pipes and frequently blocked taps.

In the effort of revealing the role of water in tackling HIV/AIDS based challenges, this chapter will also compare the findings of other researchers and those of the author of this document in relation to the role of water in the initiatives that aim to provide effective HIV/AIDS based care. Analysis of the research findings is executed in compliance with the concern that guides this research which is that of engaging HIV/AIDS based caregivers and HIV/AIDS affected households in planning the delivery of water with the intentions of meeting their water related needs especially in care giving. This is done with the application of the Communicative Theory with an input from the Advocacy Theory.

[14] Diarrhoeal challenges include dehydration that fatalistically affects the HIV/AIDS patients. This is based on the fact that HIV/AIDS patients frequently experience bouts of diarrhoea, which exacerbate exodus of water in their bodies (Yerdaw et al. 2002). In addition, diarrhoeal challenges include malady that is associated with diarrhoea where the patients just release their faeces on their beds and floors of the HIV/AIDS based care giving places.

4.2 THE MEANING AND UNDERSTANDING OF COMMUNICATIVE THEORY

Chapter two shows the idea of Communicative Theory, which is one of the theories that should be applied in planning the delivery of social services. In reference to Communicative Theory, Fainstein (2000) argues that communicative planning model encourages dialogue, negotiation among the planning stakeholders. In this process, the marginalized groups play an active role in planning exercise. There is no exclusion of the weak and the poorest of the poor. With the application of Communicative Theory in planning, it can be said that their interests in planning can be represented. In this process, the planner encourages objectivity, openness and truth (Flyvbjerg, 2000). Stories are told and experiences are shared.

The above stated facts around Communicative Theory are necessary in planning the delivery of water to the HIV/AIDS based caregivers. The HIV/AIDS based care givers are not adequately involved in planning the delivery of social services especially water (Akintola, 2004). The water related needs of the HIV/AIDS infected households are higher than those that are not affected. The government decided to provide only six thousand (6000) litres of free water without consulting the HIV/AIDS based caregivers and HIV/AIDS affected households. Given this fact, it can be argued that, the government and other water suppliers do not exactly know the HIV/AIDS vetoed demand for water. HIV/AIDS has changed the demand of water in HIV/AIDS affected households.[15] There is a need to make the water suppliers understand and acknowledge this change in the demand of water so that they can provide water and other social services to the affected households and HIV/AIDS based care giving organisations in a way that enable them to execute their HIV/AIDS related roles and duties.

Philani Support Group caregivers practically revealed the importance of sharing stories and experiences that is manifested by the Communicative Theory. The

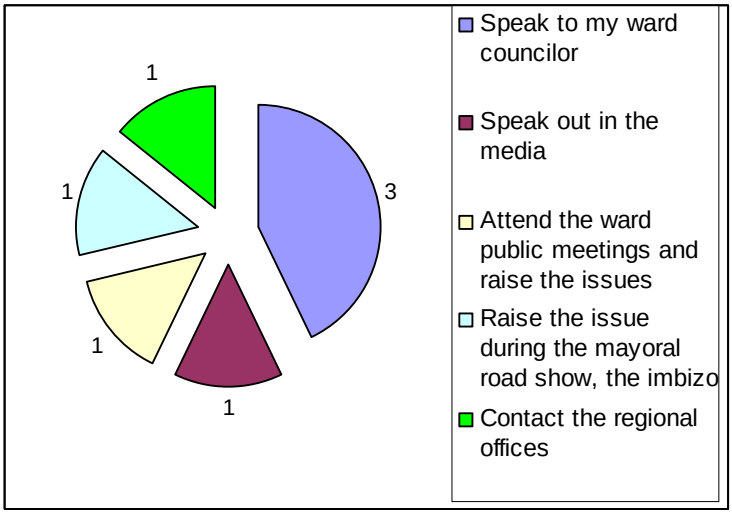
[15] This is based on the fact that HIV/AIDS affected households and HIV/AIDS based caregivers need water for washing the clothes of HIV/AIDS patients, bathing the patients, cooking for the patients, cleaning the places that offer HIV/AIDS based care giving and use water to facilitate the medication processes such as the process of swallowing pills and mixing food with medication (Ashton et al. 2002). These make HIV/AIDS affected households and caregivers to demand more litres of water with the intentions to execute effective HIV/AIDS based care.

caregivers of this HIV/AIDS based organisation were sharing stories and experiences about the HIV/AIDS affected households in relation to water and food parcels. They expressed the role of cooking which needs water. Some of them raised the issue of collecting water in distant areas. They said, collecting water is very exhausting and depressing since it makes the patient feel that you are not caring enough as you take long when you travel to the tap (Philani Support Group, 2007, pers. comm. 10 Aug.). In doing this, the caregivers were open and truthful by quoting households that were catered for in terms of HIV/AIDS based care giving. In this process, they expressed their concern, which was associated with the failure of the HIV/AIDS patients to speak about their health problems to them. They clearly stated the names of HIV/AIDS affected families and water related a problem including other challenges those families face. Most importantly, the majority of caregivers concurred that unreliable water supply was a problem in the provision of effective HIV/AIDS based care. Taking that into consideration, it can be noted that caregivers know their day-to-day water related challenges and they can be able to articulate them to the water suppliers if they are given a chance. This sort of a chance can only be provided by the application of Communicative Theory. This is a failure on the side of water suppliers and government.

But, chapter two reveals that the constitution of the Republic of South Africa, Act 108 of 1996, as amended, and the Municipal Systems Act 32 of 2000 promote participation of the citizens in any decision-making process that can affect their lives. In addition, the constitution provides a democratic environment for the people of all socio-economic classes to participate. But, the majority of citizens fail to partake effectively in the decision-making processes.[16]The Philani Support Group caregivers expressed the desire to partake in the initiatives that aim at solving the problems associated with the lack of water. When they were asked on how they would like to do that, the majority of them stated that they would like to speak to the ward councillor. But, there were different answers regarding the method of participation. The following figure represents the different methods of participation as preferred by caregivers in the delivery of water.

[16] This is based on the grounds that people of South Africa (S.A) that are poor and located in informal settlements tend to be illiterate, unskilled and uninformed. This makes them lack the necessary capacity to partake vigorously in the decision-making processes and development projects that aim at providing delivery of social services.

Figure 4: the representation of the participation methods in ward 77 caregivers in 2007.



Source: Interview conducted at the Philani Support Group, 10 August 2007

According to the above figure, the majority of caregivers prefer to speak to the ward councillor about their water related problems. This is demonstrated by three (3) of the caregivers who were interviewed. These caregivers argued that they know the ward councillor and they think that he is the best person to represent their interests. They said so since they believe that they get no attention to the City of Johannesburg officials who plan the delivery of water. In addition, the caregivers stated that, this is the only person to represent their water related needs as they know and vote for him instead of the City officials who do not even know them. But, one (1) of the respondents stated that, she would like to speak to the media about their poor access to water in relation to HIV/AIDS based care giving. She argued that media are very significant and fast in drawing the attention from the suppliers of social services. In supporting this idea she said that, there are many procedures to be followed when you want to see officials. They went further by saying that the media is easy to contact and speak to. The other one (1) of them stated that she would like to attend meetings with the ward committee and air her water related problems there. She said that the ward committee will take their grievances to the City of Johannesburg Council and it will be listened, as it will be a legitimate representative unit of the society at large. One (1) of the caregivers stated that she would like to air the water challenges during the mayoral imbizo. She said that, this is one of the best ways to speak with the officials.

The last one (1) of caregivers stated that she would like to contact regional offices to talk about their water problems.

4.3 THE INTERPRETATION OF ADVOCACY THEORY

According to Sandercock (1998), Advocacy Theory aims at making the marginalized group to participate fully in planning. The planner goes to the people and listens to their needs and come to table them in the planning offices (Sandercock, 1998). The planner participates fully in the societal activities and meetings. In this context, the planner starts to be positioned in a way that makes him or her understand the day-to-day challenges, needs and aspirations of the society. The planner speaks to the residents and represents them in planning offices (Ibid). He or she becomes the advocate of the people' needs and aspirations. This type of planning is lacking in many parts of informal settlements. This is revealed by the absence of planners who stay in informal settlements. Most planners reside in formal settlements. They do that with the intentions of accessing socio-economic services and opportunities that are associated with close proximity to the cities and proper developed infrastructure. That means, planners are in areas of high quality of life. It can also be said that they do not want to expose themselves to the difficult living conditions that are found in informal settlements such as low developed infrastructure, insufficient delivery of social services such as water, electricity and removal of waste, high rates of crime and lack of employment opportunities to mention just few examples. This cripples the probability of creating advocacy planners. This is the case even in Ivory Park, ward 77. There are no advocacy planners in that settlement.

The absence of advocacy planners retards the initiatives that are made by the HIV/AIDS based caregivers to represent their water related needs in the planning offices. There is no advocacy planner that visited the Philani Support Group since they started in a period of seventeen (17) years. But, there is sometimes a visit by social workers to assess the HIV/AIDS based care giving operations. According to the Philani Support Group, the social workers do not have influence in the delivery of water and other social services. This is the case since the organisation argues that they told social workers about the need for water, but there is no improvement in its delivery. Their needs for water are not tabled in planning offices. There is no presence

of a planner in their meetings. They talk about problems alone as caregivers. The City of Johannesburg, which supplies water in the area, has not sent any planner to listen to them. This makes the city not to know the distinct demand of water among the HIV/AIDS affected households. If the water suppliers can communicate with the HIV/AIDS based caregivers and table their water related needs to the planning offices, the City of Johannesburg can know the change in the demand of water which is created by HIV/AIDS.

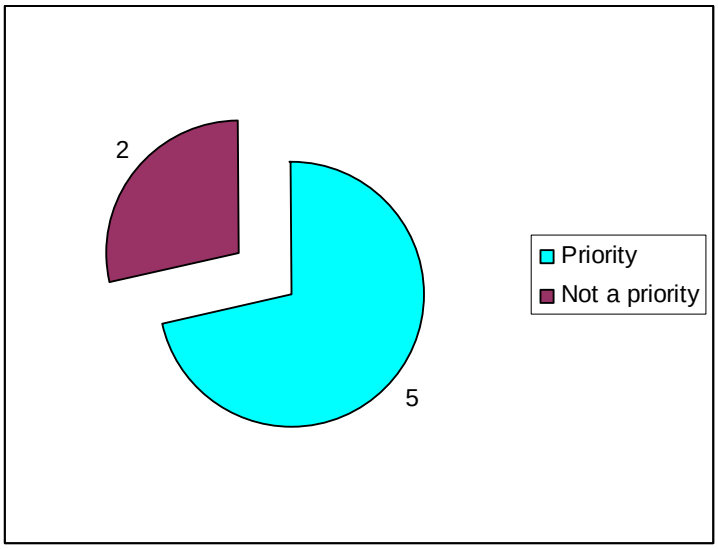
4.4 THE CONSTITUTIONAL ELUCIDATION IN RELATION TO WATER

Section 27 (1) (b) of the Constitution of the Republic of South Africa, Act 1996, as amended, says, 'everyone has a right to have access to sufficient food and water' (Republic of South Africa, 1996:12). This shows that water is essential to every individual in the republic. No one must be prohibited in terms of access to sufficient water. The constitution raises an important point in relation to the sufficiency of water. That means, water that is accessed should come in adequate litres that will enable the residents to execute water related activities. In applying this constitutional requirement to the context of HIV/AIDS, one can argue that water that is supplied should be in enough quantities to make the caregivers carry their HIV/AIDS water related duties effectively. Unfortunately, the Free Basic Water policy does not take into account the different water related needs of the HIV/AIDS affected households. It provides water on a general basis, assuming that each and every household of six people demand only six thousand litres of water per month. These litres of water are not sufficient for HIV/AIDS based caregivers to tackle their HIV/AIDS care related duties such as bathing the patients and cooking for them.

The Philani Support Group also revealed the lack of sufficient water, which is provided by the government. The caregivers of Philani Support Group stated that 'each HIV/AIDS affected household use more than fifty litres of water a day especially if the patient is in the advanced stage of the epidemic' (Philani Support Group, 2007, pers. comm. 10 Aug.). In this manner, the organisation revealed the importance of HIV/AIDS stage in relation to water. In the advanced stages of the epidemic, the patients need a lot of water. This is the case since patients that are in the advanced stage of HIV/AIDS experience excessive diarrhoea that leads to

dehydration. The caregivers stated that in cases where the patients are in the advanced HIV/AIDS stage, they take them to the hospices, which have access to water. They argued that water is critical in the provision of care and support to the patients. The following figure presents the findings of the Philani Support Group in relation to the importance of water. This information was obtained from the comments of the patients during the interview. It is not part of the questionnaire.

Figure 5: the representation of Philani Support Group findings regarding the importance of water in HIV/AIDS based care giving in 2007



Source: Interview conducted at the Philani Support Group, (10 August 2007)

According to the above figure, the majority of the caregivers of Philani Support Group argue that water is a priority in HIV/AIDS based care giving. This is manifested by five (5) of the respondents (caregivers). These caregivers argue that without water, there is no effective HIV/AIDS based care giving. They stated that they use water for irrigating vegetables gardens. These gardens assist in the provision of nutritional food for the patients. In addition, the caregivers stated that, they need water for cooking, bathing and cleaning the patients. In doing so, they visit families that have HIV/AIDS infected members to help on a day-to-day HIV/AIDS care giving roles. The caregivers stated that, sometimes water becomes inaccessible because of cuts in water and unreliable taps which get blocked several times. This complicates care giving work as it extensively relies on sufficient water. This shows that there is a need of sufficient water in the area. The figure also reveals two (2) caregivers who view water as a non-priority. These caregivers emphasised on Antiretroviral drugs stating that, there is a dire need to get them more accessible to the patients. In

supporting that idea, they argued that patients would not be in the advanced stage of HIV/AIDS if they get Antiretroviral drugs. This idea was immediately countered by one of the caregivers who said that even the Antiretroviral drugs need water to be swallowed. This caregiver stated that without water there is nothing can be done to counter HIV/AIDS driven health challenges (Ibid).

In terms of quality of water, the caregivers stated that, they have no problem. They said, they access clean water from the taps. They said they do not need to boil water before drinking. One of them said, 'the patients drink water and there are no side effects' (Ibid). This show that quality of water is in a good standard as it does not exacerbate opportunistic infections for the patients. But, some of the caregivers stated that they are not sure that water can exacerbate opportunistic infections. In relation to quantity, the caregivers stated that when they get water, they access it in enough quantities. But, they also revealed the fact that there are times of the long periods with a lack of access to water due to the damaged water pipes and blocked taps.

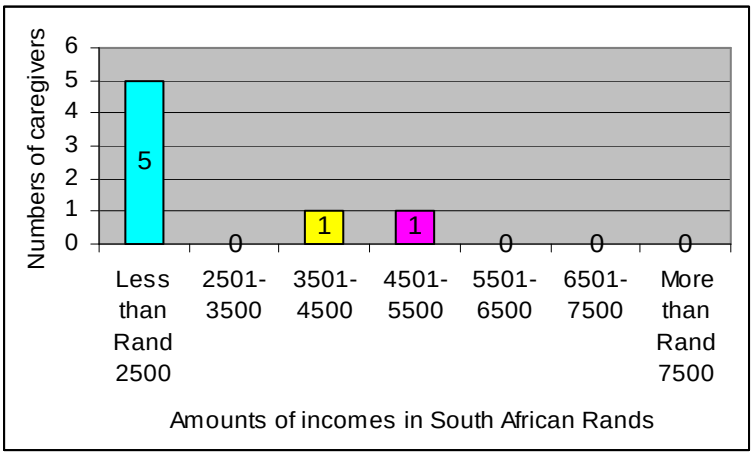
4.5 INTERPRETATION AND ANALYSIS OF WATER AND HIV/AIDS BASED CARE GIVING WITHIN THE CONTEXT OF POVERTY

In chapter two it is stated that there are many factors that determine access to water. These factors include spatial aspects such as poorly developed water related infrastructure and poverty. In addition, poverty is one of the socio-economic factors that make people vulnerable, voiceless and powerless.[17] Many HIV/AIDS based caregivers manifested the problem of poverty in HIV/AIDS based care giving. In reference to poverty, they said it should be taken as one of the priorities. The majority of caregivers do not have any source of income. They get stipends from Philani Support Group, which is R500 per month. They said that they take those stipends as their monthly incomes. Some of them get incomes that exceed R500. These caregivers

[17] This fact is based on the premise that poor people do not have enough resources to partake in the society. In addition, their lack of resources makes them unable to partake actively in political life and this makes them voiceless as they are not provided any platform to air their grievances. They become powerless as they lack, *inter alia*, intellectual capacity to influence and shape decision-making processes that affect their lives. Such people are found in the informal settlement and most of them live with less than one US$ (United States Dollar) a day (Southern African Regional Poverty Network, 2007).

get their incomes from external sources such as small shops and little liquor stores they own. The following figure reveals the amount of incomes they get.

Figure 6: the representation of incomes that are earned by Philani Support Group caregivers per month in 2007.



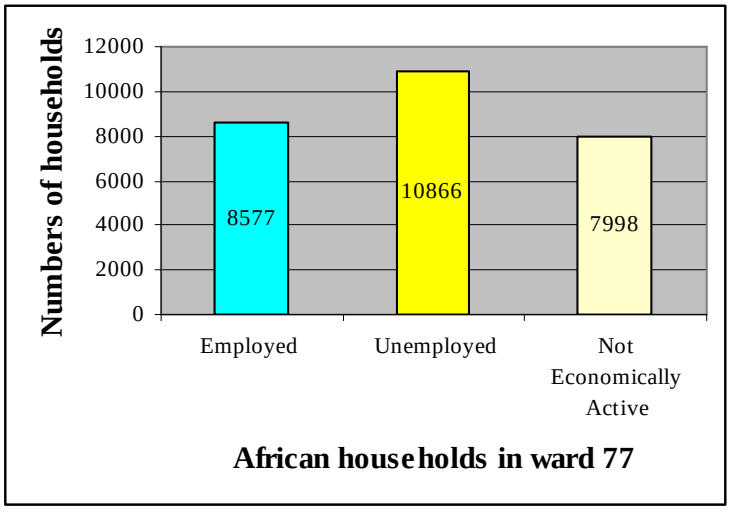
Source: Interview conducted at the Philani Support Group, (10 August 2007)

According to the above figure, there are five (5) caregivers that earn less than 2500. These caregivers rely on the R500 income, which is provided to them by Philani Support Group per month. These caregivers do not have other sources of income. They rely on that R500 per month. Most of them have three to six (3-6) household's members who also rely on that R500 income per month. Such household's members depend on that income. The figure also reveals one (1) caregiver who earns an amount that ranges from R3501 to R4500. This caregiver has a little liquor store in her own residence. There is also one caregiver who earns an amount that ranges from R4501 to R5500. This caregiver has a small shop that sells food products. The figure shows that, there is no caregiver (0) who receives incomes that range from R2501 to R3500, R5501 to R6500 and R6501 to R7500. Furthermore, the figure shows that there are no households who earn more than R7500 per month. This is caused by the lack of high educational levels by the caregivers of Philani Support Group. These caregivers are unemployed and most of them are women.

The lack of sources of income by the interviewed caregivers manifests the findings of the Statistics South Africa (2001), which shows that most Africans in ward 77 are

unemployed. This is the situation that is found in many informal settlements in S.A. There are many people who live in abject poverty as a result of unemployment and some of those people face challenges of HIV/AIDS (Thompson, 1999). The following figure shows the amounts of unemployed Africans in ward 77 as manifested by Statistics South Africa in the 2001 findings.

Figure 7: illustration of labour force among the African households in ward 77, 2007



Source: Statistics South Africa (2001) The demographic Analysis of Ivory Park

According to the above figure, the number of employed households in ward 77 is greater than the number of those who are unemployed. This is manifested by 8577 households who are working and 10866 households who are not working. Taking this fact into account, it can be noted that many people in ward 77 lack income. The figure also reveals that 7998 households in ward 77 are not economical active.[18]

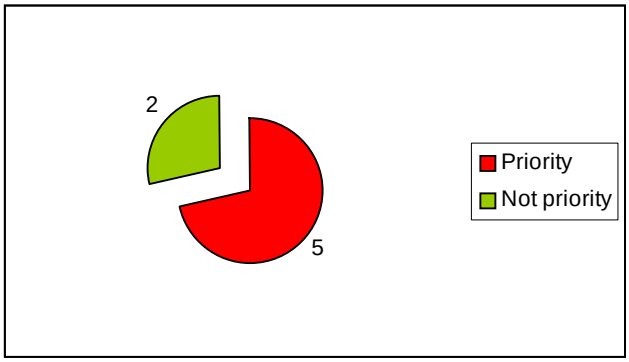
The low incomes that are provided by Philani Support Group and the lack of additional sources of income makes the HIV/AIDS based care giving organisation to experience problems in its initiative to provide effective HIV/AIDS based care giving. This is the case since, low incomes are faced with a neo-liberal context in South Africa (S.A) which is created by the introduction of Growth Employment and Redistribution Policy (GEAR). This neo-liberal status quo led to the installation of the

[18] This fact refers to those who do not partake to any economic activity because of age, heath and other commitments (Mujahid, 1973). It includes students, old age groups, the sick and the disabled people (Ibid). These people cannot undertake any work related activity. Students cannot work because of their school related commitments. The old age groups, the sick and the disabled people are frequently compromised by their health status to partake in any work related activity.

meter systems that requires households to purchase additional litres of water after the finishing of six thousand litres of free water that is provided to each household per month by the government. Philani Support Group is unable to buy the required additional litres of water to execute its HIV/AIDS water related duties such as cooking and bathing of patients to mention just few examples.

Philani Support Group caregivers revealed the urgency of creating jobs for people in ward 77. These caregivers stated that job creation should be taken as one of the priorities. They revealed that many people get into commercial sex with the intentions of getting money to purchase basic services. In that process they catch HIV as most of them engage in unprotected sex. The Philani Support Group caregivers also stated that. This enhances the level of burden in the initiatives they undertake to provide effective HIV/AIDS based care giving as the number of the HIV/AIDS patients increase. The majority of caregivers stated that, job creation can be able to assist in efforts that aim at providing effective HIV/AIDS based care. In supporting that idea they stated that, if the caregivers work and get enough incomes, the organisation (Philani Support Group) would not have to pay each caregiver R500 per month. This money would be used to purchase additional litres of water. The following figure depicts the responses of the seven interviewed caregivers.

Figure 8: the representation of the Philani Support Group findings in relation to job creation for ward 77 residents in 2007.



Source: Interview conducted at the Philani Support Group (10 August 2007)

The above figure shows that five (5) caregivers stated that job creation should be given a priority status. It is only two (2) caregivers who stated that job creation should not be taken as a priority. These two caregivers are those who have additional sources of income generated by the small shop that sells food products and a small bottle store

they own. These caregivers did not take job creation as a priority. They said caregivers should open small shops to generate more money.

The families that are taken care of by the HIV/AIDS based caregivers are also poor (Akintola, 2004). This is in line with the findings and comments of Tomlinson (2007) when he argued that HIV/AIDS epidemic reconfigures families. In this process, families start to be headed by young people who do not have any source of income as the HIV/AIDS infected parent dies.[19] They do no have any source of income as their breadwinners (parents) die of HIV/AIDS epidemic. This situation is exacerbated by the lack of desire by relatives to take care of the HIV/AIDS orphans. The HIV/AIDS orphans that are taken care of by Philani Support Group manifest this. One of the caregivers stated that, they give orphans food parcels and this cripples the financial resources of the organisation. The need to buy food for patients makes them unable to purchase additional litres of water that are necessary to carry out their HIV/AIDS based care giving related work. This exacerbates situations where there is no availability of water to the HIV/AIDS based caregivers. This brings into compromise the efforts of the organisation to provide effective HIV/AIDS based care giving to the patients.

It can be argued that poverty, which is experienced by HIV/AIDS based caregivers, makes them to be powerless and voiceless. This is one of the reasons why they are not taken into account by water supplies in the process of planning its delivery. This reveals the implications of power in planning.[20] The powerlessness of caregivers exacerbates their exclusion in planning the delivery of water. Their exclusion and the lack of impact on planning the delivery of water makes them lack chances of letting the suppliers know the amount of litres of water that they need in the efforts of

[19] This is based on the fact that young people are part of the non-economical active group of people. This happens since they have to attend school. In a situation where the bread winner dies as a result of HIV/AIDS, they leave school without finishing their studies and this makes them unemployable as they do not have necessary skills, training and education which can make them to be employable in the labour market (Ganyaza-Twalo et al. 2005).

[20] This is premised on the fact that, those who have power shape the agenda of planning in their own favour at the expense of those who are powerless. This is a manifestation of conflict of interests in the planning exercise. Those with resources such as money use them to sponsor the programmes that can generate revenues and improve their standards of living. They marginalise those that do not yield benefits for them by sanctioning them in terms of funding. Sometimes they criticise them to eradicate their legitimacy.

providing care and support for HIV/AIDS patients. They have no financial resources as they lack employment. This also cripples their possibilities to purchase additional litres of water.

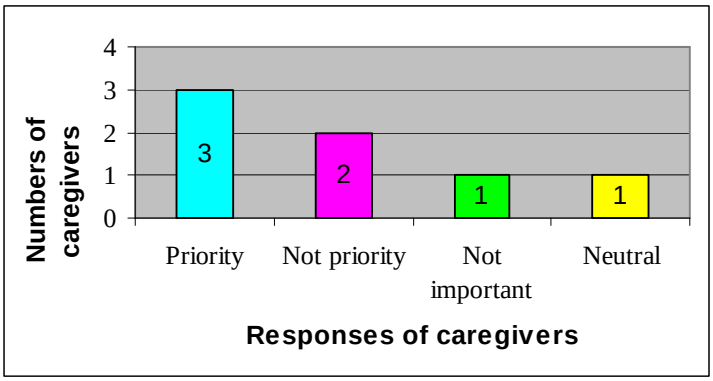
4.6 WATER AND HIV/AIDS IN RELATION TO SANITATION

It cannot be ignored that water plays a role in the attainment of sanitation. Sanitation is a dire need in the HIV/AIDS based care giving institutions. This is the case since lack of sanitation creates vulnerability of the HIV/AIDS based caregivers to diseases that are associated with a lack of hygiene. Good quality water is needed to wash hands regularly by the caregivers. This is the case since caregivers are regularly exposed to diarrhoea, bleeding wounds and other fluids that come from the HIV/AIDS patients who have reached the advanced stage of the HIV/AIDS epidemic. The lack of good quality water makes the washing of hands impossible. This makes caregivers vulnerable and it creates a situation where opportunistic infections are exacerbated.

The interviewed caregivers of Philani Support Group stated that water plays a role in sanitation. They said that there are clothes that need to be washed. They also said that when clean water is not available they do not wash clothes and blankets of patients and this creates a bad smell in the HIV/AIDS based care giving places. In times where there is no water, they use dams. This is in line with the findings of the Statistics South Africa (2001), which stated that there are still people who get water from dams for domestic use. Caregivers stated that dams tend to have contaminated water. This reveals that quality of water matters in HIV/AIDS based care giving efforts. The tanks are also used during the periods where there is no water. But, water that is contained on tanks tends not to be enough to cater for all the necessities of the HIV/AIDS based care giving.

Statistics South Africa (2001) revealed that the levels of sanitation in the area are slow. It is clear that this is caused by the lack of proper and reliable access to water. According to the caregivers, sanitations should be treated as a priority in HIV/AIDS based care giving. The following figure represents the responses of caregivers in relation to sanitation.

Figure 9: the demonstration of the Philani Support Group responses in relation to sanitation in 2007.



Source: Interview conducted at the Philani Support Group, (10 August 2007)

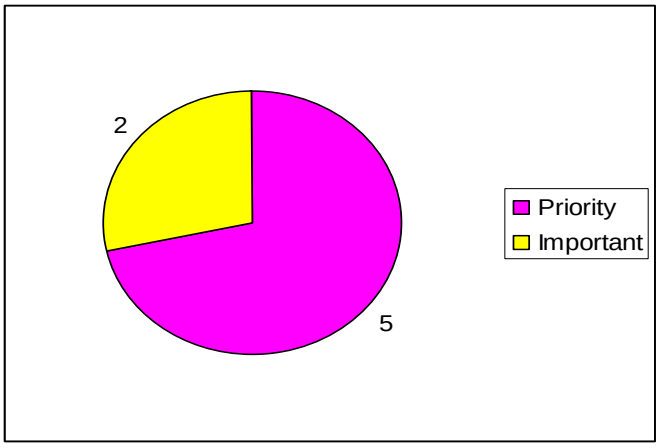
The figure above depicts that out of seven respondents, three (3) of them stated that sanitation should be given a priority status in the efforts that aim at taking care for HIV/AIDS patients. These caregivers stated that if there is no sanitation, opportunistic infections can be exacerbated. This can happen if there is no water to facilitate sanitary conditions.[21] These caregivers quoted their situations where there was no water to wash clothes and clean the HIV/AIDS based centres. One of them said, 'there was a difficult situation where we lacked water and everything was dirty, the place was horrible and the work was difficult for us' (Philani Support Group, 2007, pers. comm. 10 August). Two (2) respondents who stated that sanitation is not a priority countered this. The second bar of the figure depicts their position on sanitation. These caregivers stated that they need funding from the state to buy food parcels instead of water. One (1) caregiver who stated that water is not important at all when it is compared with funding backed these up. The third bar of the figure depicts this. One (1) caregiver stated that she is neutral. This caregiver said, 'You cannot separate water and funding. These go together in HIV/AIDS based care giving. You need money to buy food. But, that food has to be cooked by water' (Ibid). This is the position of the neutral caregiver who emphasised on the importance of water in relation to sanitation while giving a priority status to funding.

[21] This is based on the fact that water is necessary to flush toilets in the care giving institutions (Klaas-Makolomakwe et al. 2005). If there is no water to flush toilets, the sanitation standards of the care-giving institutions will be low as there will be no water to clean up the dirty clothes and blankets of patients who experience frequent bouts of diarrhoea.

4.7 HIV/AIDS AND ACCESS TO WATER WITHIN THE CONTEXT OF COMMUNITY SAFETY

According to the findings that are based on the interviews done in the Philani Support Group, it can be noted that community safety plays a role in the spread of HIV/AIDS. If the policing standards of the community are low, the members of the community become exposed to violent acts such as murder and rape. In S.A, there is high level of rape (Treatment Action Campaign, 2003). This is frequently done on women and girls. It is reported that, when women and girls go to fetch water from the river, tap or any distant source, women and girls stand more chances of being raped. This exacerbate HIV/AIDS epidemic. Incidents of rape have occurred in the paths of collecting water from distant sources in informal settlements. This is reported by the Philani Support Group caregivers who stated that community safety should be treated as one of the priorities. These HIV/AIDS based caregivers also stated that they are scared to go to the distant areas as they expect more chances of being raped. They stated that they have to go in groups to the taps of water. In situations where other caregivers are busy, they decide to wait for them even if water is not at the HIV/AIDS care centre. This brings HIV/AIDS based care giving into a compromise. The following figure shows the caregivers in relation to community safety.

Figure 10: the representation of the Philani Support Group responses in relation to community safety for ward 77 residents in 2007.



Source: Interview conducted at the Philani Support Group, (10 August 2007)

The figure shows that five (5) of the caregivers see community safety as an issue that has to be given a priority status. This is the case as it disturbs them in their ways of fetching water to execute HIV/AIDS related duties. The two (2) of the caregivers that

were interviewed took community safety as something that does not need to be treated as a priority. These caregivers stated that street lighting should be taken as a priority as many girls get raped during the night. They view this as one of the contributing factors to the exacerbation of HIV/AIDS. In response to the ideas of getting raped on the way to get water, these caregivers said, 'There is no problem as we go to the taps in groups. We do not get raped as rapists are afraid of groups' (Philani Support Group, 2007, pers. comm. 10 August). One of the five caregivers who viewed community safety as a problem in dealing with HIV/AIDS based care giving in terms of complicating access to water said, 'in a situation where HIV/AIDS patients need an urgent care in the absence of many caregivers, it is painful to leave the patients stranded as a result of diarrhoea' (Ibid). This caregiver was referring to a situation where there are only two caregivers doing the work on a particular day.

The problem of community safety which is accompanied by a challenge of long distance between the HIV/AIDS based care giving centres and sources of water in informal settlements is also a case in ward 77. This socio-economic challenge (the lack of community safety) and spatial problem (the taps that are found in distant areas) have been found by many researchers who based their research work on informal settlements. The long distances between the care giving places and taps compromise efforts that aim at providing effective HIV/AIDS based care and support.

4.8 THE IMPACT OF DISTANT SOURCES OF WATER TO HIV/AIDS BASED CAREGIVING

In travelling long distances with the effort to fetch water, caregivers have to leave patients for a couple of hours. This happens in the Philani Support Group as the caregivers stated that, when they go out of the care giving places to fetch water, they come back after two hours. If there is a shortage of water whereas there are only two caregivers (as they have to go as a group which is made up of two or more individuals), it becomes difficult for them to leave patients to fetch water from the distant taps. This reveals that water is not close to the HIV/AIDS based caregivers. The large proximity between taps and people was also revealed by Statistics South Africa in its findings of 2001. The Statistics South Africa (2001) reveals that these people have to fetch water from the community stands. They do not have water in

their yards as other people do in ward 77. These water related adverse trends have not improved yet as people still have to travel long distances to fetch water. This situation adversely affects HIV/AIDS caregivers who, like other people, have to travel long distances to fetch water.

Taking the above stated facts into account, it can be argued that, the long distances that have to be travelled by HIV/AIDS caregivers in fetching water create a situation where there is an absent caregiver. In this phenomenon, the HIV/AIDS patients struggle to take care of themselves as reflected in chapter three. HIV/AIDS based care giving needs caregivers to be always close to the patients to take care of them. This is the case since patients need very focused and committed caregivers who will keep on looking after themselves in the form of providing assistance in changing them their clothes and linens, in changing their sides while they are sleeping on the beds, in doing regular cleaning of them during the frequent periods of vomiting and diarrhoea. These require a caregiver who is always around the patients with sufficient access to water. This shows that access to water plays a crucial role in the efforts that aim at tackling the health challenges that are posed by HIV/AIDS epidemic.

4.9 STIGMA IN THE CONTEXT OF ACCESS TO WATER AND HIV/AIDS BASED CARE GIVING

In chapter two, it is divulged that stigma is one of the factors that undermine access to basic services. This is the case since stigma creates an environment that exacerbates exclusion of those who are affected by HIV/AIDS.[22] This situation, also affects HIV/AIDS caregivers. Caregivers get harassed in places of accessing social services such as water. This happens in taps when they want to fetch water to execute their duties. They become discriminated against. They are always put at the back as they are viewed as caring a fatalistic disease that is transferable to other residents. This is the case also in ward 77. Some of the Philani Support Group caregivers stated that

[22] This idea is based on the fact that, people who are not infected by HIV/AIDS become scared and discriminatory towards those who are infected thinking that they stand more chances of being affected when they get into a contact with and share services with them (Human Science Research Council, 2005). With this fear, they distance them from those affected. In situations where they find them in public places such as taps and shops where they have to share services, they prefer to be served separately from them. This creates a difficult among HIV/AIDS infected people and caregivers in terms of accessing services.

when they are in taps they get discriminated against. This makes them to be always put at the end of the queues. If someone comes after them, that one would be put before them. This happens since many people know them that they are HIV/AIDS caregivers. They argued that, they do not have to complain since the public will harass them. Such ideas were revealed by the two of the seven caregivers, which were interviewed. This was immediately countered by three of the caregivers stating that there is no stigma that is associated with undermining access to water. These caregivers stated that, people of ward 77 take HIV/AIDS as an ordinary infection. The two of the caregivers stated that, it depends on who you are. They backed their position by saying, 'if you give them chance they will do it, but if you do not give them, they wont' (Ibid). When they were asked what would happen if the residents know them as caregivers, they doubted. This shows that, stigma is still a problem in accessing water. This is the case since, if the residents know that such a particular person is a caregiver, they tend to discriminate against that particular individual.

In terms of HIV/AIDS based care giving, stigma by its role in eliminating access to water provides a huge compromise. This is the case since it makes caregivers wait a long time as a result of discrimination. This problem exacerbates a situation where there is an absent caregiver. Taking this into account, one can argue that lack of access to water which is driven by stigma leads to a retarded HIV/AIDS based care giving. In countering this, there is a need of taking into account the laws that can assist in dealing with stigma in relation to accessing social services especially water. In this context, Akintola (2004) talks about laws that should be instituted with the intentions to prevent discrimination and facilitate access to social services such as water. In making this a reality, the water suppliers, social workers and the City of Johannesburg should go to the caregivers with the intentions of engaging them into a dialogue. This dialogue must be open, truthful and is should be based on trust. This will arguably facilitate possibilities of reaching a consensus regarding the delivery of water. All power related obstacles must be eradicated and the voices of the poor caregivers of ward 77 HIV/AIDS based caregivers must be heard. These voices must be taken to the planning offices so that they can shape decision-making processes that have to do with the delivery of water.

4.10 CONCLUSION

The role of water is tackling health challenges that are driven by HIV/AIDS epidemic cannot be underestimated. Water is life and this is revealed in many instances where it is utilised in the HIV/AIDS based care giving initiatives. The caregivers of the Philani Support Group also reveal that water has a big role to play in the care duties and health of the HIV/AIDS based caregivers and HIV/AIDS patients respectively. This occurs since water is used for bathing the bodies and clothes of the HIV/AIDS patients cooking for them and cleaning the HIV/AIDS based care-giving centres. Water is also used for facilitating medication, creating hygienic conditions and countering diarrhoeal challenges. These are direct activities that make water play a role in tackling HIV/AIDS based driven challenges. Without water all the above stated HIV/AIDS based care giving roles become impossible to execute. That means, without water, effective HIV/AIDS based care giving cannot be provided.

The above-mentioned roles and duties of HIV/AIDS based care giving are best known by HIV/AIDS based caregivers. This is the case since they carry them on a day-to-day basis. They know the amount of water that is necessitated to carry out an effective HIV/AIDS based care giving. In addition, they know that households that are affected by HIV/AIDS need more litres of water as compared to those who are not affected. The government provides only six thousand litres of free water per month. Judging from their experience and their day-to-day water related challenges, caregivers state that these litres of free water per month are not sufficient to carry out the HIV/AIDS based care giving duties. Put simply, the six thousand litres of free water a month cannot help to provide an effective HIV/AIDS based care to the HIV/AIDS patients. Given the above stated facts and issues in relation to water and HIV/AIDS based care giving, there is a dire need to engage HIV/AIDS based caregivers in planning the delivery of water. This type of planning needs an application of Communicative Theory. In this process, the caregivers should be given a platform to elaborate on their day-to-day challenges. This should be done in the form of providing them a chance to tell their stories objectively, openly and truthfully without any political or socio-economic power that can serve as a obstacle to that process. This was practically demonstrated by the Philani Support Group HIV/AIDS based caregivers when they

told stories about their day-to-day water related challenges in the context of HIV/AIDS based care giving. This will facilitate understanding of the high demand of water that is found among the HIV/AIDS affected households.

Telling stories without tabling them in planning offices does not matter at all. In addition, the state of providing an open, truthful and objective dialogue without making the water related needs of the HIV/AIDS based caregivers shape the agenda of planning in the delivery of water will not necessarily solve water related problems that are faced by the HIV/AIDS based caregivers. The water related needs of caregivers should shape the delivery of water. There should be more litres of water that are provided to the HIV/AIDS care giving centres and households.

There are also indirect factors that also affect the role that is played by water in dealing with HIV/AIDS driven challenges in ward 77. These factors determine the level of access to water and this is critical in HIV/AIDS based care giving. Stigma is one of the factors that determine the access to water. This happens since stigma makes care givers to be excluded in accessing social services such as water. Their limitation in terms of access to water makes them unable to provide effective HIV/AIDS based care and support, as they tend to experience a lack of water. Such water has to be accessed as it is of a high necessity to execute HIV/AIDS based care giving roles. In addition, the second class status that is given to them in the form of making them access social services after those who are not affected have accessed them cripple their efforts to tackle HIV/AIDS driven health challenges. Caregivers have to wait long time in collecting water from the taps. This creates conditions of absent caregiver in HIV/AIDS based care giving institutions. Such condition makes HIV/AIDS patients to be stranded as they struggle to get help if the caregivers went to fetch water.

The other indirect factor that cripples possibilities of attaining effective HIV/AIDS based care giving is unsuitably and poor developed infrastructure in informal settlements such as water pipes and taps. This inappropriately developed water related infrastructure leads to frequent water related challenges in the form of repeated damages of taps and blocked water pipes. This condition cripples the distribution of

water to the HIV/AIDS based care giving centres. Put differently, it leads to the unavailability of water to the HIV/AIDS based caregivers.

Taking what is mentioned in the above paragraphs, it can be argued that stigma and poor developed water related infrastructure leads to the lack of access to water by the HIV/AIDS based care-giving centres. This, in turn, complicates efforts that aim at creating sanitary conditions, which are necessitated to eliminate opportunistic infections among the HIV/AIDS patients. Sanitary conditions are also needed to eliminate vulnerability of HIV/AIDS patients to infections that are associated with the lack of sanitation.

The call of the constitution for access to sufficient water is compromised by the Free Basic Water policy which wants each household to get only six thousand litres of free water a month. This policy which manifests the decision of the government in terms of providing water, fails to take into account the needs of the HIV/AIDS infected households and HIV/AIDS based caregiver's needs for water. That means, the Free Basic Water policy leads to an insufficiency of water as six thousand litres of water fall short in the efforts that aim at executing HIV/AIDS based care giving roles as such bathing the patients and cooking of them.

It is of paramount importance to take into account the quality of water that is utilised in the initiatives that aim to provide effective HIV/AIDS based care giving and support. Water to be used by HIV/AIDS caregivers must not lead to harmful effects to HIV/AIDS patients. Put simply, water must not exacerbate opportunistic infections. It must facility sound health for the HIV/AIDS patients. In addition, it must lead to vulnerability of HIV/AIDS based caregivers to infections that are associated with its contamination.

In a nutshell, it can be stated that water has a role to play in tackling HIV/AIDS driven health challenges such as countering dehydration challenges; dealing with diarrhoeal challenges such as cleaning the patients' clothes, lines and blankets which become polluted as a result of frequent bouts of diarrhoea that are normally experienced by HIV/AIDS patients; washing the patients bodies including creating and maintaining hygienic conditions in the HIV/AIDS based care giving centres

which assist in eliminating the spread of opportunistic infections to mention just few examples. Easy access to water also assists in minimising situations where caregivers become absent in the HIV/AIDS based care-giving centres. Given these facts and issues and findings in relation to water and HIV/AIDS, water has a role to play in the initiatives that aim at tackling HIV/AIDS driven health challenges.

CHAPTER FIVE

5. RECOMMENDATIONS AND CONCLUSIONS

5.1 INTRODUCTION

Water is necessitated by HIV/AIDS based caregivers and HIV/AIDS affected households. Its unavailability to the HIV/AIDS based care centres creates adverse conditions that retard the efforts that aim at providing effective HIV/AIDS based care giving and support especially to the HIV/AIDS patients who desperately need water. These facts reveal that water is life and its unavailability can inevitably lead to the end of life. This is manifested by Cohen (2006:5) when he says, 'people can survive without eating food, but without consuming water, they can survive only few days'. The high demand for water by the HIV/AIDS based caregivers and HIV/AIDS affected households has been revealed in chapter four.

In consideration of the above stated facts and what is argued in the previous chapters, this chapter intends to provide recommendations on how planning that takes into account the different water related needs of HIV/AIDS based caregivers and HIV/AIDS affected households can be attained. It does that by also providing conclusions in regarding what is argued in the previous chapters. In relation to recommendations, this research report contends that if the government and water related suppliers aim to facilitate the inevitable role of water in dealing with HIV/AIDS driven health challenges, the following is severely recommended:

Firstly, it should be noted that, there is a need to survey before making any plan that aims at addressing the water related challenges that are faced by HIV/AIDS based caregivers. In doing this, there should be an application of the so-called situation analysis to clearly assess and understand the day-to-day challenges of HIV/AIDS based care giving. In the initiative that aims to assess the water related situation in the context of HIV/AIDS based care giving, SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis should be applied. In the context of HIV/AIDS based care giving, strengths and weaknesses are internal factors while opportunities

and threats are external factors that can affect access to water and the way it is used in the initiatives that aim at providing HIV/AIDS based care to the HIV/AIDS patients.

5.2 SWOT ANALYSIS IN THE CONTEXT OF WARD 77

The previous chapters have demonstrated that the HIV/AIDS based caregivers in informal settlements face so many challenges that hamper their access to water and their efforts which are aimed at providing effective HIV/AIDS based care giving. The SWOT analysis that aims at assessing the situation in Ivory Park, ward 77 should be applied. This should be done with the intentions of attaining real information to use in the efforts that aim at dealing with HIV/AIDS driven health challenges. The SWOT analysis which has to be applied should be structured in the following manner:

5.2.1 STRENGTHS

It is important to first look at the strengths that have to be possessed by ward 77 in the context of HIV/AIDS based care giving. For the HIV/AIDS based caregivers to provide an effective HIV/AIDS based care giving, they should possess the following existing strengths: Precisely, strengths involve the internal capacities of the HIV/AIDS based caregivers. Such internal capacities constitute, the installed water pipes in the HIV/AIDS based care giving centres, the financial capacity of the caregivers to buy additional sources of water and easy access to water, which is in sufficient quantities and in a good quality. If these are found, the caregivers would stand a chance of providing an effective HIV/AIDS based care that can tackle the HIV/AIDS driven challenges by the use of sufficient water that is in a good quality.

Most of the above stated strengths such as water pipes in the HIV/AIDS based care giving centres, sufficient water and easy access to water are not found in the HIV/AIDS based care centres. This shows a lack of some of the elements of strength by the HIV/AIDS based caregivers. The Philani Support Group demonstrates this.

5.2.2 WEAKNESSES

These involve internal issues that complicate the attempts that aim at providing an effective HIV/AIDS based care to the HIV/AIDS patients. The weaknesses in the context of HIV/AIDS based care giving include the lack of power on the side of the HIV/AIDS based caregivers to influence the delivery of water, lack of education by the HIV/AIDS based caregivers which can make them employable and manage the use of water judiciously, poor water related infrastructural development that hinder access to water in areas of HIV/AIDS based care giving and support. In addition, weaknesses include the lack of power by the HIV/AIDS based caregivers to influence the agenda of planning regarding the delivery of water to the HIV/AIDS based care giving institutions.

These are the weaknesses that are experienced by many caregivers that are located in informal settlements. Ivory Park, ward 77 has almost all the above-stated weaknesses.

5.2.3 OPPORTUNITIES

In the context of HIV/AIDS based care giving, the opportunities should entail political will by the government and other water suppliers to provide additional litres of free water, the introduction of HIV/AIDS based caregivers' right protecting laws, the formulation and implementation of the policies and programmes that aim at reducing stigma which plays a role in eliminating access to water by HIV/AIDS based caregivers and HIV/AIDS affected households and the desire to engage HIV/AIDS based caregivers in planning that has to do with the delivery of water. In addition, the opportunities that have to be there should include the projects that aim at creating socio-economic opportunities for the HIV/AIDS based caregivers. Such opportunities should appear in the form of facilitated education and employment opportunities.

The HIV/AIDS based caregivers still lack many of the above stated opportunities such as legal framework that protects their rights of access to water, there is also a lack of radical policies that promote access to water. These hinder efforts that aim at providing effective HIV/AIDS based care giving and support to the HIV/AIDS patients.

5.2.4 THREATS

These are external elements that negatively affect HIV/AIDS based care giving. They include crime, which makes caregivers to be scared to go as individuals to fetch water, lack of political will and commitment by the government to consider access to water in the context of HIV/AIDS and stigma which surrounds HIV/AIDS.

The HIV/AIDS based caregivers face these threats. There is a dire need to consider the sort of situational analysis which is elaborated above with the intentions to come up with join up solutions that should involve HIV/AIDS based caregivers, the government and the water suppliers. Join up solutions mean that more than one stakeholder should partake in tackling the water related problems to provide an effective HIV/AIDS based care giving.

The following part of this chapter provides recommendation with the consideration of the situational analysis, which is elaborated above. That means all the interventions, should take into account the day-to-day challenges that are faced by HIV/AIDS based caregivers as reflected by the SWOT analysis. That means, to improve the strengths of HIV/AIDS based caregivers in ward 77, initiatives should do the following:

5.3 ADDRESSING SPATIAL AND SOCIO-ECONOMIC PROBLEMS IN IVORY PARK, WARD 77.

5.3.1 Spatial aspects

It is revealed in the previous chapters that poorly developed water related infrastructure is still a problem in informal settlements. This hinders the delivery of water to the HIV/AIDS based caregivers as already stated. To counter this, there is need for radical interventions to install proper water related infrastructure. This initiative should be manifested by the installation of large water pipes and taps that are very close to the HIV/AIDS based care-giving centres. The large water pipes will help to prevent repeated water blockages which frequently happen in small water pipes. These efforts should not end there, they should make sure that HIV/AIDS

based care giving centres are developed formally to facilitate the installation of pipes and drainage toilets in those areas. Being developed formally means that they should not be made up of shacks. They should be constructed as formal houses which have installed water pipes. This will assist in making access to water easy to the HIV/AIDS based caregivers. This should be done with the constant contact of caregivers. They should have a say regarding the installation of water pipes and taps. The HIV/AIDS based caregivers should also be given a chance to manage water delivery projects. This will make them able to overcome the reduced accessed to water that is driven by stigma around HIV/AIDS.

5.3.2 Socio-economic aspects

The successes of government in terms of addressing the adverse socio-economic legacies of apartheid are very minimal (Simutanyi, 2006). For instance, crime; lack of skills, education and training which make many black people unemployable; poverty and malnutrition are still severe (Ibid). These socio-economic problems play a role in access to water. For instance, the HIV/AIDS based caregivers of Philani Support Group stated that low levels of community safety makes them afraid to go as individuals to fetch water (Philani Support Group, 2007, pers. comm. 10 August). In the effort to fetch water, they stated that they have to go in groups because they fear gangs and rapists. This creates a situation where there is no access to water. The pressure to go as groups creates a situation where there is no care giver as revealed in chapter four.

To counter this, the government must work hands in hand with HIV/AIDS based caregivers, the community and South African Police Services (SAPS) to address the problem of crime. It must increase the visibility of police in ward 77. The efforts that aim at tackling crime which hinders access to water should be accompanied by the facilitation of access to education for the HIV/AIDS patients who are not in the advanced stages of the HIV/AIDS epidemic. This will reduce dependency on the HIV/AIDS based care givers as the educated patient stand more chances of being able to take care of them selves.

The government must make sure that the HIV/AIDS based caregivers have access to socio-economic opportunities. This should be done by the projects that aim at developing and upgrading HIV/AIDS based care centres. This should be done with the intentions to create employment, which, in turn, will assist in reducing poverty for the HIV/AIDS based caregivers. The reduction of poverty will eliminate the powerlessness of the caregivers that is frequently driven by lack of financial resources. In addition, addressing poverty will mean that there more people who have access to nutritious food. This means that malnutrition can be addressing by creating employment in ward 77. In a situation where the government does not increase the litres of water that are necessitated by HIV/AIDS based caregivers, some portion of incomes of the HIV/AIDS based caregivers can be utilised to purchase additional litres of water which are of a necessity to execute HIV/AIDS based care giving duties such as bathing the patients and cooking for them.

5.4 LEGAL FRAMEWORK ENSHRINING THE RIGHTS OF HIV/AIDS BASED CAREGIVERS, PATIENTS AND AFFECTED HOUSEHOLDS

Akintola (2004) argues about the need for the introduction of a legal framework that aims at protecting the rights of the HIV/AIDS based caregivers and HIV/AIDS affected households. He argues that this should accompany by the introduction and applications of policies and programmes that aims at promoting the rights of HIV/AIDS based caregivers and patients. The government of the Republic of South Africa (RSA) has not taken any effort to enshrine the distinct water related needs and rights of HIV/AIDS care givers and patients in the Constitution. The Constitution just states that ‘everyone has a right of access to sufficient water’ (Republic of South Africa: 1996:34). This is not reflective in terms of the high water related needs of HIV/AIDS based caregivers. In terms of programmes that aim at promoting the rights of HIV/AIDS, the government has been lagging behind. This is reflected by one of the court cases that were opened against the government that aimed at ordering the government to provide Antiretroviral (ARVs) drug treatment to the HIV/AIDS patients (AIDS Foundations, 2005). This shows a lack of political will by the government officials to treat the needs of HIV/AIDS patients and affected families in a special manner.

To counter the above stated legal problem, the government must introduce laws that aim at promoting the rights of HIV/AIDS caregivers in terms of access to water. The government has introduced policies and programmes that aim at dealing with HIV/AIDS. But, it did not introduce any policy that aims at facilitating access to water to the HIV/AIDS care giving centres and HIV/AIDS affected households. There is a need of radical water related policies and programmes that specifically aim at delivering more litres of water to the HIV/AIDS based care giving centres and HIV/AIDS affected households.

5.5 CONTEXTUALISATION OF THE FREE BASIC WATER POLICY

There is no fixed number of HIV/AIDS patients that is accommodated and taken care of by the HIV/AIDS based care giving institutions. Given this fact, the government must take into account that some HIV/AIDS based care giving institutions accommodate more than ten (10) HIV/AIDS patients. They do not just take care of only six HIV/AIDS patients. The government must also consider that the water related needs of the HIV/AIDS based patients are higher than those that are not affected by the epidemic. In doing so, the government must provide more that six thousand litres of free water to the HIV/AIDS based caregivers and HIV/AIDS affected households. All the HIV/AIDS care giving centres should be registered by the government with the intentions of providing a list of the organisations that will receive additional litres of free water. This will result to the provision of water which is in enough quantity to the HIV/AIDS based care giving institutions.

The government must not end there. It should make sure that the water that is accessed by HIV/AIDS based caregivers and patients does not result to harmful effects. That means, the government must strive to provide quality water to the HIV/AIDS patients. This should be done with the collaboration of international institutions that have interests to the quality of water such as the World Bank (WB) United Nations Development Programme (UNDP) and Nongovernmental organisations (NGOs) to mention just few examples.

In incorporating the above-mentioned facts and suggestions in the Free Basic Water Policy, the government will be contextualising the policy in a manner that reflects the

water related needs of HIV/AIDS based caregivers and HIV/AIDS patients. This initiative must be taken with the engagement of HIV/AIDS based caregivers, water suppliers and government. This can be attained by a successful application of Communicative Theory with inputs from the advocacy planners who will take the needs of HIV/AIDS based caregivers and HIV/AIDS patients into planning offices.

5.6 CONCLUSION

There are many challenges that are faced by HIV/AIDS based caregivers in their initiatives that aim at providing effective HIV/AIDS based care. This occurs since HIV/AIDS based caregivers lack adequate resources to tackle HIV/AIDS driven health challenges. The health challenges that are associated with HIV/AIDS involve repeated bouts of diarrhoea incurred by the HIV/AIDS patients, the need for repeated bathing of HIV/AIDS patients, a need for clean water for drinking purposes by the patients, formula feeding for the children of HIV/AIDS patients and the hygienic conditions which are necessitated to prevent the opportunistic infections. In making these attainable, water is of a necessity. This reveals that water plays a key role in HIV/AIDS based care giving.

It is shown that the water related needs of the HIV/AIDS based caregivers, HIV/AIDS patients and HIV/AIDS affected households are more than those who are not affected by the epidemic. The Free Basic Water policy does not consider the HIV/AIDS changed demand of water. This is the case since the policy is based on the water related needs of the household that constitutes only six members which is not affected by the HIV/AIDS. This policy provides only six thousand litres of water to the household of six members per month. Some households in the South African informal settlement entail more than six members. This means that the policy excludes the households with more than six members. Given that fact, it can also be said that some HIV/AIDS affected households constitute more than six members. The water related needs to take care of one of two HIV/AIDS patients can be very difficult when only six thousand litres of water are provided per month.

It can be stated that the decision to provide only six thousand litres of water per month at each and every household shows lack of consultation of the HIV/AIDS based care

givers. This lack of consultation is manifested by the HIV/AIDS based caregivers who say that the six thousand litres of water which is provided by the government per month is not enough to execute all the duties that are related to the HIV/AIDS based care giving. There is a need to engage the HIV/AIDS based caregivers in planning the delivery of water. They must be given a platform to tell their stories regarding their day-to-day water related challenges they face in executing their roles in the providing effective HIV/AIDS based care giving.

In the initiative that aims at attaining an effective HIV/AIDS based care giving, HIV/AIDS based care givers must be placed in management positions in many development projects that aim at delivering water. This will help in fighting the stigma, which is associated with the epidemic. This should be accompanied by the installation of laws and policies that aim at reducing discrimination against HIV/AIDS based caregivers. Their rights of access to water must be treated as a priority.

The water suppliers and agencies including stakeholders that plan the delivery of water must pay visits to the HIV/AIDS based caregivers with the intentions to listen to their needs, concerns and aspiration in relation to water and HIV/AIDS based care giving. This will assist in creating sound know-how and understanding of the water related challenges they face in relation to the initiatives that aim at tackling HIV/AIDS posed health challenges. This will also assist in revealing the amount of water that is associated with HIV/AIDS based care giving.

In a nutshell, the government and other water suppliers must give HIV/AIDS based care givers and HIV/AIDS affected households' water related needs a priority status as water is of a high necessity in dealing with HIV/AIDS driven health challenges such as bathing the patients, cooking for them, washing their clothes and lines, cleaning the HIV/AIDS based care giving centres, helping in medication processes and watering vegetables gardens that aim at producing nutritious food for the HIV/AIDS patients.

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QUESTIONAIRE

University of the Witwatersrand
School of Architecture and Planning

TO BE FILLED BY INTERVIEWER immediately before interview starts:

Initials of Interviewer:__S._____ Date:_____
Location of interview:_____ Time:_____
Gender of interviewee (M/F) ___,

Introduction. Hello, my name is _____. I am a Masters student at Wits University, and I am doing a class project that includes some surveys of community needs and their priority to the people. Think about your particular ward or area, the one you live in, and the needs of the people living in it. Also, think of the different people, organizations, and government institutions involved in your ward to assist in achieving these needs. Answer to the best of your ability and knowledge.

Thanks for agreeing to talk to us. Please be assured that this is a confidential interview and if you feel uncomfortable, we can stop anytime.

Can you do the interview in English, (y/n) _____ **OR**
would you prefer another language (what??)_____

How long have you lived in this area? _____
The house you live in, do you
Own it, _____
Rent it, _____
live with your family,_____
or other arrangement? _____

Let me begin by asking you some questions about general concerns. Please rank each item on a 1-5 scale in terms of their importance to you, where 1 is most important, 3 is of middle importance and 5 is the least important, or not important. Think about your community needs.

Job creation	1	2	3	4	5
Poverty alleviation programmes*	1	2	3	4	5
HIV/AIDS	1	2	3	4	5
Schools	1	2	3	4	5
Adult Based Education and Training facilities	1	2	3	4	5
Libraries	1	2	3	4	5
Housing	1	2	3	4	5

Recreational facilities	1	2	3	4	5
Clinics and health facilities	1	2	3	4	5

Other

** such as free basic service, social grants and food to vulnerable groups.*

Of the previous list, which are the three most important? ***Would you like me to read them to you again?***

1._____
2._____
3._____

Let me read you a list of specific concerns and please also rank each item on a 1-5 scale in terms of their importance to you, where 1 is most important, 3 is of middle importance and 5 is the least important, or not important.

Electricity supply	1	2	3	4	5
Water supply	1	2	3	4	5
Sanitation	1	2	3	4	5
Waste removal	1	2	3	4	5
Public transportation	1	2	3	4	5
Tarred roads	1	2	3	4	5
Traffic robots	1	2	3	4	5
Street lighting	1	2	3	4	5
Community safety	1	2	3	4	5
Public phones	1	2	3	4	5
Improve municipal billing system	1	2	3	4	5

Other

Of the previous list, which are the three most important? ***Would you like me to read them to you again?***

1._____
2._____
3._____

Do **YOU** have any interest in participating in resolving the needs of your community through engaging the officials in the City of Johannesburg?

1. Yes _____ (go to the next question)
2. No_____

What are the reasons for not being interested in participating?

1. Do not have time
2. Venues not suitable
3. Authorities don't take participation seriously
4. I don't care
5. There are community organizations to do these things

6. Other reasons_____
_____
_____

If yes, how do you want do that? **Select all applicable**

Attend the ward public meetings and raise the issues	( )
Through the ward committee	( )
Make a written submission during the IDP consultation process	( )
Contact the regional offices	( )
Petition the City	( )
Raise the issue during the mayoral road show, the imbizo	( )
Speak to my ward councilor	( )
Speak out in the media	( )

Do you think that community organizations such as resident associations, ratepayers associations, civics such as SANCO, community development forums, community policing forums, etc. are good enough to represent the communities in public participation processes?

(a) Yes_____
(b) No _____

What are the active community organizations in your area?
……..
……..

Demographics of household composition. ***We are almost done, now we have just a few final questions about you:***

Which best describes your current house: (check one)

a) formal _____
b) informal house_____
c) traditional_____
d) other (what) _____

Your Age: (tick one) 20-29___ 30-39___ 40-49___ 50-59___ 60-69___ 70+___

Education: (tick one)

a) Less than grade 8___,
b) Some High school (standard 8)___
c) High School grad Matric)___
d) some college____
e) college grad____

f) post grad_____

Did you attend secondary school in a rural area (Y/N) _____?

How many persons including yourself lived full time in your house last week: (number)? _____

How many employed (full and part time?) people were living in your household last week? _____

Is the household head married? _____

Recent monthly income (for entire household, tick one)

Less than Rand 2500 ____
2501-3500 ____
3501-4500 ____
4501-5500 ____
5501-6500 ____
6501-7500 ____
More than Rand 7500 ____

Thank you very much for your time!