IMPACTS OF HIV/AIDS AT THE LOCAL LEVEL IN SOUTH AFRICA

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Of course none of the above persons share responsibility for possible errors.

The consultant has included in this report material contained in two other reports he prepared. With a view to avoiding many instances of quotation and reference, the two reports are acknowledged at the outset and material has been liberally borrowed from these reports. The reports are

South African Cities Network (2005a) *Local Governments Responding to HIV/AIDS* and Urban Poverty: Recommendations. The report is available at www.sacities.net/2006/jan/hiv aids research series.pdf pp. 1 – 42.

City of Johannesburg (2004) *HIV/AIDS*. The report is available at <u>www.joburg.org.za/corporate_planning/aids.pdf</u>

ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome					
ART	Antiretroviral Therapy					
ASSA	Actuarial Society of South Africa					
CD4	A type of white blood cell that helps and amplifies the immune					
	response. (See Definitions)					
HIV	Human Immunodeficiency Virus					
HSRC	Human Sciences Research Council					
CSO	Civil society organisation					
NM/HSRC	Nelson Mandela/Human Sciences Research Council					
OI	Opportunistic infection					
SACN	South African Cities Network					
ТВ	Tuberculosis					
WHO	World Health Organization					

DEFINITIONS

Acquired immunodeficiency syndrome

⁴AIDS is the term given to the constellation of [opportunistic infections] and malignancies, as well as manifestation of HIV infection itself (encephalopathy and the wasting syndrome), that occurs when the immune system is profoundly depleted.¹

CD4 and opportunistic infections

CD is an abbreviation for 'cluster of differentiation', referring to cell surface molecules that are used to identify stages of maturity of immune cells. CD4 means 'cluster of differentiation 4'. CD4+ cells are a type of white blood cell that is important in fighting infections. CD4+ cells are also called T-lymphocytes, T-cells, or T-helper cells. HIV infects CD4+ cells. The number of CD4+ cells drops in most people infected with HIV who are not receiving treatment for the disease. The number of CD4+ cells helps determine whether opportunistic infections may occur. Opportunistic infections occur in people whose immune systems have been weakened by a disease such as AIDS or by immunosuppressive drugs such as chemotherapy.² Examples of opportunistic infections are pneumonia and tuberculosis.

Human immunodeficiency virus

The human immunodeficiency virus (HIV) primarily infects and destroys cells in the immune system, particular CD4 (helper) T-lymphocytes, causing profound immune suppression that gradually develops over a period of years and ultimately renders the patient vulnerable to opportunistic infections ... and malignancy. The rate of viral replication is directly related to the rate at which the immune system is destroyed.

Capital investment in services infrastructure

Internal infrastructure costs include the costs of reticulating services such as water, electricity and roads within the boundaries of townships; connector costs relate to items such as the main pipelines, reservoirs, sewers and distribution roads that connect the internal service to the bulk service; and the bulk infrastructure costs are those associated with the major roads, treated water supply, outfall sewers and wastewater treatment works, and so on.

and

¹ Wilson et al. (2002, pp. 48 and 54)

² <u>http://www.webmd.com/content/article/5/1680_50211.htm</u> <u>http://www.webmd.com/hw/hiv_aids/tu6407.asp</u>

Operating costs of delivering services / Subsidies

Any capital investment generates operating costs, for example, payment for bulk water and maintenance costs. Whereas capital investment is a one-off expenditure, operating costs are recurring expenditure for the lifetime of the assets. Operating expenditure is normally recouped from the end-user, households and economic and other activities that pay for rates and services. Shortfalls between the cost of services and the ability and the willingness of the community to pay for the services are balanced through subsidies. Subsidies can occur within the sector, for example, from rich households and economic undertakings to poor households, between sectors, for example, from electricity to water, or through fiscal transfers. Intra-sector subsidies are viewed as good policy and subsidies between sectors are viewed as bad policy.

Free basic services

Since 2000 South Africa's services policy has been that local governments should provide free basic services. It is self-evident that there cannot be such a thing as a free service. Free basic services therefore involve subsidies, as described in the previous paragraph. Basic services refers to services that meet the World Health Organisation's criteria for the lowest services level required to ensure the health of the user. This has informed government's determination of basic as 6 kl of water per household per month, a ventilated improved pit latrine and 50 kWh of electricity per household per month.

The City of Johannesburg and the Gauteng Provincial Government have determined that subsidised low-income housing projects should have above basic services levels.

Subsidised housing

The Bill of Rights in South Africa's Constitution provides all with the right to housing. Housing policy provides all 'qualifying households' with a housing subsidy most often of R31 929, which at the time of writing was equal to about US\$5 150. Typically this has translated into a 25m² unit with water and electricity connections and waterborne sanitation. In addition to the top structure, the housing subsidy is used to pay for the capital costs of internal services.

NOTE REGARDING THE DATA AND PROJECTIONS

This document contains HIV prevalence, demographic and other projections and survey findings from a variety of sources. The reader is urged to be cautious when comparing data and projections from different sources and to view all projections for what they are, projections based on the available data and best informed assumptions and, as such, indicative of anticipated circumstances.

- The HIV prevalence, AIDS-related deaths, maternal orphans, population and other projections undertaken for this report by Stephen Kramer are derived using data from the ASSA2003 model. (ASSA refers to the Actuarial Society of South Africa.) Some of the reports available to the public, most importantly the *National Indicators*³, employ the ASSA2002 model. ASSA2003 was produced as a successor to ASSA2002 using improved demographic data. Key differences between the two models are identified in Annexure 1. In this regard:
 - Sections 7.1 and 9.4 are based on ASSA2002
 - Section 7.2 is based on ASSA2003
 - The essential difference between the two lies on the longer 'median terms to death' included in ASSA2003, with the result that the South African population is marginally larger and HIV prevalence marginally higher that in the ASSA2002 model.
- Some of the projections are based on the World Health Organisations clinical staging system Stages 1 to 4. Stages 5 and 6 were added to ASSA2002 to take account of access to antiretroviral treatment and various prevention and care programmes in South Africa. What this entails is described in Section 7.1 and in Annexure 2, which includes a presentation of the World Health Organisation's 2005 HIV/AIDS revised clinical staging system. The consultant modified the ASSA2002 representation of Stage 1 and an explanation for this is also contained in Annexure 2.
- A HIV/AIDS projection from a different source is used in the discussion of elderly dependency, Section 9.5.
- The findings reported in the 2005 Human Sciences Research Council survey are used as the primary source for looking at why prevalence is higher among certain groups and in certain locations than other, Section 7.3.

³ Dorrington et al. (2004).

EXECUTIVE SUMMARY

This report contributes to the third phase of UN-Habitat's programme on *Managing the HIV/AIDS Pandemic at the Local Level*. The report is intended to enable local governments to assess the impacts of HIV/AIDS on the demand for, and on the management of the delivery of, housing and services, and also to enable local governments to plan to mitigate these impacts. The services referred to are water and sanitation, waste removal and energy.

The Framework has five parts.

- Part 1 provides an introduction to HIV and AIDS and the World Health Organisation clinical staging system.
- Part 2 provides the country policy context for local efforts to minimise the impacts of HIV/AIDS, and local government workplace programmes.
- Part 3 introduces Johannesburg as the case study city, illustrating housing and services, management and HIV/AIDS policies in the city.
- Part 4 looks to the demand for housing and services in a context of HIV/AIDS and provides HIV and AIDS prevalence projections; demonstrates that housing and services should be used proactively for the prevention of HIV and opportunistic infections (OIs) and the care of those who are infected; and describes how housing and services policy necessarily focuses on the needs of women, children and the elderly.
- Part 5 describes the four components of a HIV/AIDS housing and services strategy: projections and the capital and operating budget; housing and services for prevention and care; targeting interventions in the light of gender and other differences; and institutional vulnerability.

Part 1. Shared Understanding of HIV and AIDS

Chapter 2 explains HIV and AIDS in the light of the World Health Organisation's clinical stages, making the point that local government responses to HIV and AIDS should reflect the stage which the individual is in and especially, with increasing deaths, should look to household reconfiguration after the death of the AIDS-sick individual(s).

Part 2. Country Policy Context

Chapter 3 explains the national and provincial policy context for local government and community involvement in HIV/AIDS activities.

The national policy context for local government HIV/AIDS policies is the Department of Health's *HIV/AIDS/STD Strategic Plan for South Africa, 2000-2005*; and the *Operational Plan for Comprehensive HIV and AIDS Care, Management and Treatment for South Africa.* Neither plan accords a role to local government.

There is also a South African National AIDS Council that is chaired by the Deputy President. The council has five task teams. Housing and services and workplace programmes and the role of local government are not addressed.

Following on from the 2000-2005 Strategic Plan, all provinces are to form Provincial Aids Councils that will 'co-ordinate the provincial multi-sectoral approach with a particular focus on districts, local governments and communities'.

The *Gauteng Aids Programme* 'incorporates HIV prevention, healthcare for Aids, children's services and access to poverty alleviation interventions.' The Gauteng Provincial Government envisages a role for local government in coordinating prevention and care activities, working with civil society organisations, preparing workplace AIDS programme and the mainstreaming of AIDS into municipal services.

Chapter 4 situates the role local government within the structure and functions of local, provincial and national government and then explains specific local government responsibilities in respect of housing and services.

The role of local government is prescribed in the Constitution. Its objects are to provide democratic and accountable government, ensure the provision of services, promote social and economic development, promote a safe and healthy environment, and encourage the involvement of communities and community organisations in the matters of local government.

The delivery of services is described in the 1998 White Paper on Local Government as the 'central mandate' of local governments. The delivery of these services typically exceeds two-thirds of a local government's operating budget.

Housing and services have been delivered at scale and since the democratic elections in 1994 over 1.7 million housing units with services have been delivered, during which period the housing backlog increased to over 1.84 million units. The primary reason for this increase was an unexpectedly sharp decline in household size and increase in household formation.

Government introduced a free basic services policy in 2000, with the free services being 6 kilolitres of water per household per month, a ventilated improved pit latrine and 50 kWh of electricity per household per month. A central question in the report is whether these services levels suffice for the prevention HIV and OIs and the care of those who become infected.

Housing delivery is not included in the Constitution as a responsibility of local governments. Responsibility for ensuring housing delivery lies with the national Department of Housing, which the Department has encouraged through the provision of subsidies and substantial private sector involvement in housing delivery. However the evolution of housing policy and dissatisfaction with the housing delivered and the

perceived creation of unsustainable communities has seen the shift in responsibility for delivery to local governments.

The national Department of Housing does not have a HIV/AIDS housing policy, but in June 2006 appointed the consultant to prepare a policy that addresses inheritance rights and special needs housing, for example, that of orphans.

Chapter 5 describes the workplace programmes that are being put in place among local governments in South Africa and identifies the lack of more comprehensive programmes that address institutional vulnerability and the ability to sustain the delivery of housing and services. The work place programmes seek to minimise 'the infection rate among HIV negative employees and extending the economic life span of HIV positive employees' and to prevent discrimination against those who are HIV positive. Chapter 5 also points to the Buffalo City Municipality's estimate of the labour force cost of HIV/AIDS and the figure arrived at of 0.9% of salaries and wages, which is considered to be surprisingly low.

Part 3. City Characteristics, Institutions and Policies

Chapter 6 provides the reader with a general introduction to Johannesburg and an understanding of its housing and services and management and HIV/AIDS policies.

Johannesburg is South Africa's largest city, with an estimated population in 2004 of 3.6 million persons. Johannesburg is located in Gauteng province and immediately abuts two other metros – Ekurhuleni and Tshwane. They effectively constitute one large conurbation with a population in 2004 of 8.6 million persons. The population growth of the three metros has considerably exceeded that of other large cities.

In 2001 Johannesburg had one million households and 22% lacked formal housing and 15.5% lacked on-site water. The increase in the number of households in Johannesburg was 39% between 1996 and 2001, which was considerably more rapid than the increase in the population. However this trend is not expected to continue and Johannesburg and Gauteng's population is projected to peak in 2014 and to decline slowly thereafter. It is unknown whether the number of households will likewise decline.

In regard to delivery of housing and services, housing is a department within the municipal bureaucracy. Low-income housing projects are identified in the city's Integrated Development Plan. (The plans are intended to direct and coordinate local government capital and operating expenditure, spatial planning, and so on.)

Water and sanitation, electricity and waste removal are provided by companies that are wholly owned by the City of Johannesburg and have Service Delivery Agreements with the city. Services generate about 50% of the city's income and property rates another 22%.

Johannesburg's HIV/AIDS Strategy seeks, inter alia, to reduce the number of new HIV infections, provide care and support for people infected and affected by HIV and AIDS, strengthen support for affected children, especially orphans, and to mobilise the community in the fight against HIV and AIDS.

The City's *Workplace Wellness, HIV and AIDS Policy* is based on treatment, 'care through on-site counselling and psycho-social support ...' and 'support through the fostering of a non-discriminatory workplace environment and trained peer educators who promote awareness and prevention'...' These elements do not take into account institutional vulnerability and continuity of service delivery.

Johannesburg does not have HIV/AIDS policies for housing and services. In the case of housing, the focus is on overcoming the backlog. However, in the case of services, at the time of preparing this document the City was considering how services can be used for prevention and care purposes and the services levels that are required.

Part 4. Demand for Housing and Services

Chapter 7 presents HIV/AIDS prevalence projections in South Africa, Gauteng and Johannesburg.

The projected South African population, number of HIV positive, AIDS sick and cumulative AIDS deaths between 1990 and 2015 are shown in the Table.

Year	Total population	Annual growth rate	Total HIV+	% HIV+	Cumulative AIDS- related deaths	Total number of AIDS-sick
1990	35 538 787	1.8%	38 597	0.1%	326	293
1995	40 153 091	2.7%	943 590	2.3%	20 662	16 135
2000	43 966 756	1.4%	3 731 645	8.5%	318 697	194 424
2005	46 156 343	0.7%	5 165 797	11.1%	1 542 169	589 454
2010	47 380 126	0.5%	5 408 621	11.4%	3 404 415	692 511
2015	48 294 565	0.3%	5 407 945	11.2%	5 358 501	742 261

Key points contained in the Table are that:

- Despite increasing access to ART, AIDS-related deaths continue at scale.
- The rate of increase in South Africa's population is rapidly slowing.
- The proportion of the country's population that is HIV positive peaks in 2008 with a prevalence of 11.42%, although the absolute number of persons infected with HIV/AIDS peaks later in 2013, with about 5.4 millions persons having HIV or AIDS.
- The number of people who are in WHO Stage 4 and are AIDS-sick increases to about 693 000 in 2010 and 742 000 in 2015.

Cumulative AIDS deaths are increasing rapidly.

It is arguable that the foremost impacts of HIV/AIDS on household income, the demand for housing and services, and municipal management now occur after the death of the AIDS-sick individual(s). This turns the focus to household reconfiguration, including the needs of orphans.

The prevalence of HIV/AIDS in Johannesburg is marginally higher than in Gauteng province and significantly higher than in the rest of South Africa. HIV/AIDS prevalence in Johannesburg will peak in 2008/09 and Johannesburg's population peaks in 2014 and declines slowly thereafter.

(An explanation for the slight difference in South Africa's population numbers and HIV prevalence is contained in 'Notes Regarding the Data and Projections'.)

	South Africa		Gauteng		Johannesburg	
Year	Population	% HIV	Population	% HIV	Population	% HIV
2000	44 871 939	7.9%	8 509 554	10.2%	3 100 495	10.5%
2005	47 486 216	11.0%	9 398 354	14.4%	3 436 045	14.7%
2010	49 147 177	11.8%	9 722 312	14.8%	3 549 233	15.0%
2014	50 123 161	12.0%	9 786 880	14.1%	3 570 774	14.3%
2015	50 328 900	12.0%	9 781 056	13.9%	3 569 507	14.1%
2020	51 196 613	11.9%	9 687 299	12.9%	3 548 955	13.1%

The anticipated decline in Johannesburg's population means that any ongoing increase in demand for housing and services connections will come from the decline in household size, and stop when that decline stops. Housing policy in South Africa and in most major cities in developing countries is predicated on continued growth in demand for housing and services.

The number of people who are in WHO Stages 3 and 4 identifies the persons whose productivity will be impaired (later in Stage 3) or who will be unable to sustain productive activities (Stage 4). However an increasing proportion of persons who reach Stage 4 will be receiving ART. It is projected that in 2010 32 476 persons in Johannesburg will have a CD4 level of below 200 and not have had access to ART, 95 638 persons will be receiving ART and have CD4 levels that have "recovered", and 10 353 will have discontinued ART.

The projections suggest that in 2010 persons who are AIDS-sick will number 32 476 plus 10 353, which equals 42 829. This number is less than that in 2005 and is expected to continue declining due to increasing availability of ART. The need for housing and services specifically for home-based care purposes appears to be peaking at present.

Between 2000 and 2020 it is projected that there will 377 820 AIDS-related deaths and 322 022 non-AIDS deaths. The significance of AIDS-related deaths is especially apparent in the number of orphans. Referring to Gauteng, between 2000 and 2020 the proportion of maternal AIDS orphans arising from AIDS-related deaths will have increased from 28% to 90%.

In regard to where and amongst whom HIV/AIDS is most prevalent, HIV prevalence is higher the higher the proportion of the population that:

- is African
- is female
- lives slums in cities
- lives in high prevalence provinces
- falls within especially the 20-24, 25-29 and 30-34 age cohorts.

Survey findings are especially striking in the case of women. Prevalence rises very rapidly among young women and is much higher among women than men in the 20-24 age cohort. Prevalence among women remains higher in the 25-29 age cohort, where it reaches a remarkable 37.9% among women of this age. Prevalence becomes higher among men beginning in the 35-39 age cohort.

Chapter 8 demonstrates how housing and services can be used in a proactive manner for the prevention and care of HIV/AIDS and OIs. The prevention and care role shapes the nature of the housing and services needed.

The first thesis underlying this chapter is that it is a mistake to look solely at the impact of HIV/AIDS on housing and services. Ols are integral to considering the impacts of HIV and AIDS. The second thesis is that it is possible to use housing and services to

- prevent HIV infection (marginal significance)
- prevent OIs (significant)
- lengthen the periods between HIV infection and the onset of "full-blown" AIDS and the onset of "full-blown" AIDS and death (probably significant)
- provide care (critical)
- reduce the disruptive influence of illness and death on household cohesion and development prospects (significant).

It is argued that services levels required for prevention and care purposes exceed government free basic services levels. It is uncertain whether cities can, in practice, increase the amount of a service only to households with AIDS-sick family members, and it is also uncertain whether one can on equity grounds justify doing so. It might be that free basic services levels need to be increased throughout the city, although in the absence of central government subsidies the financial feasibility of such a policy will often be in doubt. Chapter 9 describes how the burden of addressing changing housing and services needs that arise from HIV and AIDS falls unevenly on women, children and the elderly and on persons in certain areas of the city.

AIDS transfers individual and familial survival onto a less resourced and often socially disadvantaged core of people. The burden of care is pushed upwards, particularly onto grandmothers; outwards, particularly onto adult female kin; and downwards, to children themselves. Few are sufficiently well resourced to take this on.

It is when a person enters WHO Stages 3 and, especially, Stage 4 that his/her productivity becomes impaired and household incomes declines. At the same time as household incomes decrease, costs increase, especially in respect of medicines, transport and time. Households at this point will often seek assistance from other families and from the community. Unfortunately extended family traditions are threatened by the numbers of AIDS orphans, financial hardship, the gradual erosion of the values that sustained it, urbanization and the increasing primacy of the nuclear family.

The presumption underlying the previous paragraphs is that it is most often the case that the person who dies was an adult and an income earner. Instead, in a context of high unemployment and pervasive dependence on social grants, the income earner may be a child (child support and foster care grants), AIDS-sick and disabled (disability grant) or the elderly (pension). These grants play a fundamental role in combating poverty and enabling extended families and community members to provide care, offsetting somewhat the pressures on African extended family traditions.

The critical unknown in how local governments should address housing and services needs is whether the rate of household formation is continuing apace and the forms in which household reconfiguration is occurring, as well as the extent of the role civil society organisation will need to play in the delivery of housing and social services.

Part 5. Local Government Strategies

Chapter 10 proposes that there are four components to a HIV/AIDS housing and services and management strategy. These have to do with:

- changes in capital investment and operating expenditure that arise from the declining rate of increase in population and household formation;
- the potential for using housing and services as a vehicle for the prevention of HIV and OIs and care of the ill;
- the need to target housing and services to poorly serviced areas and those whose circumstances are especially worsened as a result of HIV/AIDS, women in particular; and
- safeguarding the capacity of local government to deliver housing and services.

These are in large part technical strategies and the form these strategies take, and indeed the potential for other strategies, needs to be explored with CSOs. It is especially apparent that women's groups and the elderly should have a say in the manner in which strategies are formulated and implemented.

One concludes with the further research that is needed.

The underlying shortcoming of all that has been written concerns uncertainty regarding the forms household reconfiguration is taking. It has been confidently asserted that the primary impacts of AIDS will be felt after the death of the AIDS-sick individual. This assertion needs to be evaluated on the basis of further research, both in the cities and in areas where extended family impacts are to be found.

It has been asserted that higher than free basic services levels are needed for the care of the AIDS-sick. What are these services levels? What if there are two AIDS-sick persons in the house? Can higher services levels be effectively targeted to affected households? Should higher services levels be targeted to affected households? Here there is need for research into required services levels and considerable potential for policy debate.

Last, there is the concern with the sustainability of local governments and their ability to continue to deliver services and to deliver or to enable the delivery of houses and serviced stands. The prevention of HIV infection and the provision of ART are undoubtedly the foremost means of sustaining institutional capacity. However, there is considerable risk for the financial sustainability of local government when extending services at scale and providing services for free. As with household reconfiguration, here lies a second critical area of further research. Policy recommendations for individual cities should not proceed too far without modelling the financial implications of extending service delivery.

1. INTRODUCTION

1.1 Background

In September 2000, as a part of the *Millennium Declaration* adopted by member states of the United Nations, it was resolved to seek to reverse the spread of HIV/AIDS. Earlier, in June 2000, the special session of the General Assembly had adopted a *Declaration on Cities and other Human Settlements in the New Millennium.* Among other issues, it resolved "to intensify efforts at the international and national levels against HIV/AIDS and in particular to formulate and implement appropriate policies and actions to address the impact of HIV/AIDS on human settlements". UN-Habitat, the lead United Nations agency for shelter and local authorities, has developed a programme to build capacity of local authorities and other stakeholders to manage the HIV/AIDS pandemic at the local level.

This report contributes to the UN-Habitat's programme on *Managing the HIV/AIDS Pandemic at the Local Level.* The overall goal of this UN-HABITAT activity is to, "Enhance the capacity of municipal governments to reduce the incidence of HIV/AIDS in urban areas and manage social services, economic infrastructure, spatial planning and the local economy in a manner that will reduce the negative impact on those infected/affected by HIV/AIDS especially among the urban poor".

The first phase consisted of city level consultations on managing HIV/AIDS in Port of Spain (Trinidad and Tobago), Louga (Senegal), Burj el Barajne (Lebanon), Blantyre (Malawi), Phnom Penh (Cambodia) and Mumbai (India). Given the increasing urban characteristic of the epidemic in a context of weak and disempowered local authorities, this programme has been innovative in not only strengthening the capacity of local authorities, but also in developing leadership and engaging all levels and generations of society in open and honest dialogue. The second phase focused on managing HIV/AIDS at local level in Africa and built on on-going activity in Blantyre and Louga together with three additional cities: Abengourou (Cote D'Ivorie), Kisumu (Kenya) and Markudi (Nigeria).

The third phase provides a framework that is intended to enable local governments to assess the impacts of HIV/AIDS on the demand for, and on the management of the delivery of, housing and services, and also to enable local governments to plan to mitigate these impacts. The services referred to are water and sanitation, waste removal and energy.

The focus on housing and services is not present in most reports on local governments and HIV/AIDS. That is, there are a number of reports on local government responses to HIV/AIDS. Some of them are very useful and important reading. These include:

- Kelly (2004) Supporting Local Government Responses to HIV/AIDS: Positions, Priorities and Possibilities
- The World Bank (2003) Local Government Responses to HIV/AIDS: A Handbook to support local government authorities in addressing HIV/AIDS at the municipal level.
- Van Rensburg et al. (2002) *Strengthening Local Government Responses to the HIV/AIDS Epidemic in South Africa.*

The guidance generally provided within these and other reports has to do with planning, mainstreaming HIV/AIDS and the need for partnerships, all of which are very important; but their substantive concern has more to do with social services and prevention and care and support than with housing and municipal services. They also do not deal with post-death impact mitigation, which is increasingly where housing and services (and poverty) impacts are most felt. Indeed, it is only recently that the City of Johannesburg⁴ and the South African Cities Network⁵ (SACN), for example, first considered the issue of HIV/AIDS and housing and services in a substantive manner. It is also only recently that the SACN⁶ took account of the impacts of HIV/AIDS on the municipal workforce and published *Managing HIV and AIDS in the Municipal Workplace: A Guide for Local Government.* It is for this reason that the application of the framework less often illustrates what is being done and more often suggests what might be done for impact mitigation.

1.2 Lessons for Africa?

Yet the question emerges regarding the extent to which circumstances in South Africa provide lessons for Africa. Normally, this is expressed as identifying best practices that might provide models for countries elsewhere. Indeed, the World Bank has identified Msunduzi as providing an example of 'best practice'. Here best practice is presented in regard to the preparation of the city's AIDS strategy, partnership and focus. The preparation of the strategy involved considerable participation with partner organisation that included, it is claimed, more than 60 civil society organisation (CSOs) working in the area. The strategy's priorities include

... community empowerment, education awareness, a referral system, supporting the rollout of treatment with Neviraprine (for HIV-infected pregnant women), improving access to social grants, the welfare of orphans, and improvement in treatment and care through the clinics and community volunteers.⁷

This example does not address the substantive concerns of this report, namely housing and services like water and sanitation and sustaining management ability to deliver housing and services.

⁴ City of Johannesburg (2004).

⁵ South African Cities Network (2005a).

⁶ South African Cities Network (2005b).

⁷ World Bank (2003, p. 15)

Prior work of the consultant and research conducted by the consultant indicates that there are not best practice examples that can be drawn from South Africa's cities. This is not to say that the issues are not being considered. For example, during the course of 2006 the City of Johannesburg was undertaking a detailed inquiry into how housing and services might be used for the prevention of HIV and OIs and the care of those who are ill.

In the event that good examples do emerge, will they provide lessons for Africa? There are five reasons to be cautious in this regard. First, the constitution obliges national government to see to the delivery of housing and local governments to ensure the delivery of services. There is a constitutional and policy commitment to delivering housing and services. Second, the South African government has the resources to seek to ensure that all of the country's households are housed and have access to basic services. Third, social grants are playing a central role in alleviating the burden of poverty. Fourth, free education and health services together with social grants alleviate the pressure to migrate to the cities and, it has been argued, have reduced the extent of urbanisation that might otherwise have been anticipated. Fifth, the growth rate of South Africa's population is very slow and, in research undertaken for this report, it has been projected that Johannesburg's population will start to decline.

The upshot of all of this is that South Africa's cities, presently preoccupied with overcoming housing and services backlogs and delivery at scale, can foresee, or should anticipate an end to backlogs and the ability to tailor the delivery of housing and services to specific needs. These are not conditions that can be expected in major cities elsewhere in Africa.

Of course, there is also the question of whether South Africa's housing policies constitute best practice. Do they represent a desirable model? Housing best practice generally holds that households should be provided with serviced sites and tenure and it is expected that the households will themselves provide housing. It is further expected that local governments will supply the services and it is definitely not expected that local governments will deliver houses. In South Africa low-income households are provided with free houses and services and the consumption of services to a certain level is also provided for free. The services are provided by local governments and, as housing policy has evolved, local governments are expected to provide housing. All of this is described in greater detail in the balance of the report. It is unlikely that that international development agencies would present this as a desirable model.

What value therefore is to be found in this report? It is expected that the report provides insight into a number of key issues that local governments should take into account. These include:

- a better understanding of HIV/AIDS and the need to adjust policy from prior to HIV infection, to stages of infections, to after the death of infected individuals(s)
- the demonstration that housing and services can be used for prevention and care purposes
- suggestions regarding what the policy issues are
- recommendations regarding the nature of appropriate policies and the need to target policies to be sensitive to gender and other aspects of the policies
- the need to protect the institutional and financial capacity of local governments to deliver services
- the complexity of policy choices that confront local governments.

Of course the report also provides considerable information regarding policies and delivery issues in South Africa.

In the final analysis, with many countries elsewhere in Africa having had longer experience with coping with the local impacts of AIDS, it may be that local governments in these countries can provide lessons from Africa.

1.3 Approach to the Framework

The Framework has five parts. First, most references to local government responses to HIV and AIDS refer to HIV/AIDS in general, without taking into account that the stages of progression over 10 or so years from infection to "full-blown" AIDS to death and then on to household reconfiguration. The stages have differing implications for the productivity and well-being of infected individuals and affected households and for the types of local government responses needed. Chapter 2 provides an introduction to HIV and AIDS with a view to ensuring a shared understanding of HIV/AIDS.

Second, it is self-evident that local government efforts to prevent HIV infection and to mitigate the impacts of HIV and AIDS have to be located within the ambit of national policy. The same applies to local government's involvement in the delivery of housing and services and in workplace programmes. The Second part therefore provides the country policy context, which is contained in Chapter 3 on HIV/AIDS policies, Chapter 4 on policies pertaining to housing and services and Chapter 5 on workplace programmes.

Third, Chapter 6 introduces Johannesburg as the case study city, illustrating housing and services, management and HIV/AIDS policies in the city.

Fourth, one looks at the demand for housing and services, including the nature of the housing and services needed. It is to be expected that the rate of increase or, as it turns out in Johannesburg, possibly also the rate of decrease, will reflect the impacts of HIV/AIDS. Prevalence projections are included in Chapter 7. It is less well-known that the housing and services can be used proactively for the prevention of HIV and OIs, the care of those who are ill, and also are important for sustaining households

during a period of reconfiguration. This role is described in Chapter 8. Further, the HIV/AIDS housing "market" is not random and is closely related to the changing housing and services needs of affected women, children and the elderly and on persons living in poorly serviced areas of the city. Chapter 9 contains the material on the HIV/AIDS housing "market".

Fifth, a city's population will generally already be experiencing housing and services backlogs and a local government will generally also be experiencing capacity constraints when it comes to financing, managing and implementing service delivery. Noting these backlogs and constraints, what is of interest here is how the impacts of HIV/AIDS affect how a local government might seek to address the backlogs and constraints. Chapter 10 proposes four components for a HIV/AIDS housing and services strategy: changes in capital investment and operating expenditure that arise from HIV and AIDS; using housing and services as a vehicle for HIV/AIDS prevention and care; targeting housing and services to poorly serviced areas and those whose circumstances are especially worsened as a result of HIV/AIDS, women in particular; and safeguarding the capacity of local government to deliver housing and services.

2. IMPORTANT FEATURES OF HIV/AIDS

Most references to local government responses to HIV/AIDS refer to HIV/AIDS in general terms. This is incorrect as the needs generated by HIV and AIDS for a household's housing and services, and for municipal management, change over time, starting in the period prior to infection and continuing after the death of the AIDS-sick individual(s).

The purpose of Chapter 2 therefore is to explain HIV/AIDS with a view to ensuring a shared understanding of HIV/AIDS.

2.1 What is HIV/AIDS?

The course of HIV infection should be read in conjunction with Figure 1.

Following initial HIV infection, an individual may experience glandular feverlike symptoms that last for a few weeks. During this time, the so-called 'window period', an individual will test negative for HIV on antibody tests. It is only after the individual has seroconverted (i.e. started to produce antibodies to the virus), typically 3 to 4 weeks after the initial infection, that these tests will yield positive results. Following the passing of these initial symptoms, the individual enters a prolonged asymptomatic phase, which typically lasts 4 to 6 years. The individual then starts to experience intermittently symptoms such as weight loss, diarrhoea and oral infections. Finally, when the individual's immune system has been severely weakened by the HIV infection, they experience a variety of opportunistic infections, such as Kaposi's sarcoma and pneumonia, which are regarded as being defining of AIDS. The term 'AIDS' thus refers to a range of conditions that are diagnosed in the late stages of HIV infection. In the absence of treatment, the individual typically dies within 1 to 2 years of the initial AIDS-defining illness. ...

A number of laboratory tests have been used to determine the prognosis of people infected with HIV. The two tests that are most predictive of progression to AIDS and death are the viral load test and the CD4+ lymphocyte count. The CD4+ count is a measure of the degree of immune suppression; an uninfected individual would typically have a CD4+ count above 800 cells per mm³, while an individual experiencing AIDS would usually have a CD4+ count below 200. The viral load is a measure of the concentration of HIV in the body, and can be thought of as determining the rate of decline in the CD4+ count. Levels tend to be high at the time of seroconversion, and then fall gradually, rising again about two years after initial infection. The viral load test is important not only as a prognostic

marker, but also as a measure of an individual's infectiousness; individuals with high viral loads are most likely to transmit HIV.⁸

The CD4 count predicts the risk of OIs and is used to determine the need for prophylactic therapy and the initiation of antiretroviral therapy (ART).⁹ The constitutional symptoms referred to in the Figure are non-specific symptoms of ill health, for example, fevers, night sweats or weight loss. These differ from OIs whose symptoms are specific to certain parts of the body, such as pain in the mouth with oral thrush or shortness of breath with pneumonia.



Figure 1. Different stages of HIV infection and AIDS¹⁰

The lengthy period between HIV infection and the onset of "full-blown" AIDS means that HIV/AIDS is best presented as comprising two curves on a graph, Figure 2. HIV precedes the onset of AIDS by about five to eight years.

⁸ Johnson (2003, no page no. provided).

⁹ Wilson et al. (2002, p. 55).

¹⁰ Wilson et al. (2002). The figure is a digitised representation of the original graph.

Figure 2. The two epidemic curves



2.2 Illnesses and Symptoms Change Over Time

The HIV/AIDS projections employed in this report are based on the World Health Organisation (WHO) staging system for HIV infection, which allows the evaluation of immune function based on clinical status of persons over the age of 14. (See Annexure 2.) Table 1 is based on the WHO 'Primary HIV infection' and Stages 1 to 4. Stages 5 and 6 were devised by the Centre for Actuarial Research at the University of Cape Town and incorporated in the ASSA 2002 and 2003 models.¹¹ Including Stages 5 and 6 allows the modellers to incorporate conditions in South Africa pertaining to the effectiveness of prevention and treatment programmes.

¹¹ Dorrington et al., (2004, p. 24)

Stage	Duration ¹²	Severity of Immunosuppression	CD4 level
Primary HIV infection	+/- 12 weeks		
WHO 1. Asymptomatic (incl. Primary HIV infection)	2.42 – 2.84 years	Not significant immunosuppression	>500/mm3
WHO 2. Early disease	1.52 – 1.78 years	Mild immunosuppression	350 – 499/mm3
WHO 3. Late disease	3.42 – 3.98 years	Advanced immunosuppression	200 -349/mm3
WHO 4. AIDS	1.19 – 1.37 years	Severe immunosuppression	<200/mm3
5. Receiving antiretroviral treatment	HIV/AIDS a chronic disease.	Not significant immunosuppression	>500/mm3
6. Discontinued antiretroviral treatment	Varies	Severe immunosuppression	<200/mm3

Table 1. HIV and AIDS stages, duration and immunosuppresstion

The illnesses included in Stages 1 to 3 are the same as those found in the general population and, to the extent that they differ among people having HIV, it will be in the increasing frequency and severity of illness over the years. These are AIDS-related illness and most are treatable and drugs are available to prevent the occurrence and/or reoccurrence of some of the common OIs (e.g. pneumocystis carinii pneumonia, tuberculosis (TB), oesophageal thrush, cryptococcal meningitis). The exception is that no cures have been found for viruses (e.g. influenza) and for chronic diarrhoea when it is caused by protozoa.¹³ For example, it is possible to treat AIDS-related illnesses in large urban centres in South Africa, with access to primary health care, prophylaxis and referral to larger hospitals. Most of the illnesses found in Stage 4, the AIDS-defining illnesses, seldom occur in the general population. Stage 4 is frequently referred to as 'full-blown' AIDS.

The importance of Table 1 and access to treatment in large cities lies in the fact that for more than half the time that an individual is infected with HIV/AIDS his/her productivity will be unaffected by HIV infection (unless depression and anxiety have this effect). During this period there are few implications for household incomes and special services needs and the ability to pay for services. It is as the individual progresses through Stage 3 and is AIDS-sick that his/her productivity becomes severely compromised.

¹² The duration depends on the age when the person is infected. The ASSA model incorporates three age periods, 14 - 24 years, 25 - 34 years, and > 34 years, with the periods being longest for younger persons (Johnson and Dorrington, 2002, Table 1).

¹³ Protozoa are single celled pathogens that can only divide within a host organism. Examples are the malaria parasite, plasmodium.

2.3 Conclusion

HIV/AIDS needs to be understood as occurring in stages, with the epidemic in a city's population being located at some point on the two epidemic curves shown in Figure 2. Cities with the majority of their HIV-infected population in the early stages of HIV infection should concentrate on prevention activities. Cities with many people with full-blown AIDS and a rapidly increasing number of deaths need to concentrate on prevention and care and the mitigation of a variety of impacts. The point will come where the most severe impacts occur in a period of household reconfiguration, which generally begins during the later period of an adult's being AIDS-sick and/or after the AIDS-related death of the adult.

PART 2. COUNTRY POLICY CONTEXT

3. THE CONTEXT FOR LOCAL GOVERNMENT INVOLVEMENT IN MITIGATING THE IMPACTS OF HIV/AIDS IN SOUTH AFRICA

The expectation of local government HIV/AIDS policies is that they should be aligned with relevant national policies. The purpose of Chapter 3 is to explain the national and provincial policy context for local government and also for community involvement in HIV/AIDS activities.

3.1 National

The national policy context for local government HIV/AIDS policies is the Department of Health's *HIV/AIDS/STD Strategic Plan for South Africa, 2000-2005*, released in February 2000; and the *Operational Plan for Comprehensive HIV and AIDS Care, Management and Treatment for South Africa*, released on 19 November 2003. Neither plan accords a role to local government.

In the case of the Strategic Plan, its purpose is

... to guide the country's response as a whole to the epidemic. It is not a plan for the health sector specifically, but a statement of intent for the country as a whole, both within and outside government. It is recognised that no single sector, ministry, department or organisation is by itself responsible for the addressing the HIV epidemic. It is envisaged that all government departments, organisations and stakeholders will use this document as the basis to develop their own strategic and operational plans so that all our initiatives as a country as a whole can be harmonised to maximise efficiency and effectiveness.

It is allowed that local governments should participate in provincial Interdepartmental Committees.

The Operational Plan is still more sparing in reference to local government, with one reference to municipal health departments.

There is also a South African National AIDS Council that is chaired by the Deputy President. It has 15 national government representatives, including 12 Departments; and 16 sectoral representatives, including media, nongovernmental organisations, women, youth, traditional healers, celebrities and local government. There are five task teams that look at prevention; treatment, care and support; information, education and communication; research, monitoring, surveillance and evaluation; and legal issues and human rights. Housing and services and workplace programmes are not mentioned.

Legislation pertaining to the potential role of local governments is unclear. The Constitution accords local governments responsibility for municipal health, but does not prescribe what this consists of. Although some local governments are providing primary health care and some of these are also providing treatment for the AIDS-sick, it is generally the case that provincial governments have assumed responsibility for primary health care, which includes treatment. Impending legislation will have the effect of confining local government's health role to environmental health – for example, water quality monitoring, food control, waste management, environmental pollution control and prevention of communicable diseases – and HIV/AIDS treatment activities are to be channelled to provincial facilities. At the time of writing the City of Johannesburg continued to provide primary health care and had recently introduced the provision of ART.

The marginal role of local government is apparent in Idasa's *Understanding the institutional dynamics of South Africa's response to the HIV/Aids pandemic* wherein local government is mentioned six times, on five occasions as being a member of the South African National AIDS Council and on one occasion as being a member of Provincial AIDS Councils, and never as actually doing something.¹⁴

Local government HIV services appear to function almost independently of the national programmes even where there is significant overlap of activities such as where local governments are setting up [voluntary counselling and testing] sites or contracting with [nongovernmental organisations] for the provision of [home-based care].¹⁵

National government does not anticipate that local governments will play much of a role in addressing HIV/AIDS.

3.2 Provincial

Following on the Department of Health's *HIV/AIDS/STD Strategic Plan for South Africa*, all provinces are to form Provincial Aids Councils that will 'co-ordinate the provincial multi-sectoral approach with a particular focus on districts, local governments and communities'. Johannesburg is located in Gauteng province and it is the Gauteng AIDS Programme that is relevant here.

Gauteng's programme is led by the Premier and he is assisted by the Premier's Committee on AIDS, the equivalent of the Provincial Aids Councils called for in the Strategic Plan, and by the Gauteng AIDS Council. The Committee comprises Members of the Executive Committee and Heads of Departments of the provincial government. The Council's members are drawn from leadership of civil society across various sectors.

¹⁴ Strode and Barrett (2004).

¹⁵ Blaauw et al. (2004, p. 110

Each department plays specific roles in the Gauteng AIDS programme, related to its core business. All government departments are required to address AIDS both internally, through the workplace AIDS programmes, and externally according to their core business in partnership with stakeholders from the relevant sectors. This includes funding [nongovernmental organisations] to provide services in communities. The strategy has increasingly been integrated into other crosscutting provincial government strategies such as youth development, care of children, gender and poverty alleviation.¹⁶

The goals of the plan are:

- 1. Reduction in new HIV infections in the general public, youth and babies.
- 2. Increased productive life for people living with HIV and AIDS.
- 3. Normal lives for children and families affected by HIV and AIDS.
- 4. Reduced AIDS impact on socio-economic development in Gauteng.¹⁷

Again, housing and services do not feature.

In the case of housing, the Gauteng Department of Housing does have a HIV/AIDS strategy. Its key features include the call for mainstreaming, building HIV/AIDS 'competency' within the Department, succession rights and a number of other interventions pertaining to specific housing subsidy programmes. Local governments are called upon to provide services in a manner that is sensitive to the poverty of many residents, which might be a result of HIV/AIDS, to include housing within their Integrated Development Plans and to manage informal settlement processes; in other words, local governments are not accorded much of a role in addressing HIV/AIDS.

However, the Gauteng Department of Local Government does charge local governments with:

- 1. Ensur[ing] Municipal capacity to co-ordinate the local multi-sectoral AIDS response:
 - . Co-ordinate the local multi-sectoral AIDS response through AIDS Councils, ...
 - Develop community capacity on prevention, care and support: educate, train, door-to-door campaigns, coordination and selective funding allocated funding for community based organizations ...
 - Poverty programmes: access to subsidised services for indigent families, specifically burial, water and electricity, referrals.

 ¹⁶ Gauteng AIDS Plan 2005 – 2006, p. 242, Multisectoral AIDS Unit.
 ¹⁷ Gauteng AIDS Plan 2005 – 2006, p. 234, Multisectoral AIDS Unit.

- Incorporate AIDS into Integrated Development Plans.
- 2. Co-ordinat[ing] the Municipal AIDS response internally:
 - Workplace AIDS programme with [Employee Assistance Programme: Department of Local Government] and Municipalities.
 - Mainstream AIDS into municipal services.¹⁸

It is these functions that Johannesburg's HIV/AIDS strategy seeks to serve.

3.3 Local

Most local governments treat HIV/AIDS as a health issue involving prevention, and the provision of care and support with the assistance of CSOs, that is, non-governmental organisations, community-based organisations and faith-based organisations.

Thus, for example, Cape Town plans to prevent and treat HIV/AIDS and TB, mitigate the economic and social impacts of HIV/AIDS and implement an internal workplace programme. Cape Town's approach to impact mitigation is to support NGOs provide care and support and to build capacity within communities.

Taking into account the housing and service delivery responsibilities of local government, what one might have hoped for is a positive response to the following questions. The consultant's interviews have not found an unqualified 'yes' to any of the questions, except that during the course of preparing this report it was found that Johannesburg has begun to prepare services strategies that address HIV and AIDS. Perhaps if the net was cast more widely there would be some local governments that would have positive answers.

- 1. Does the city have a housing HIV/AIDS strategy?
- 2. Does the city have water and sanitation, waste removal and energy service delivery plans that take HIV/AIDS into account?
- 3. Has the city estimated the rate of increase in the demand for housing taking HIV/AIDS into account?
- 4. Has the city estimated the rate of increase in demand for services taking HIV/AIDS into account e.g. water required?
- 5. Has the city estimated the rate of increase in demand for services connections taking HIV/AIDS into account e.g. water to stands?
- 6. Has the city estimated the impact of HIV/AIDS on services levels needed for care purposes?

¹⁸ Gauteng AIDS Plan 2005 – 2006, pp. 243-4. Multi-Sectoral AIDS Unit.

- 7. Has the city estimated the impact of HIV/AIDS on household ability to pay for services?
- 8. Has the city identified areas in the city where HIV/AIDS and housing and service delivery interventions are most required and does the city have plans in place to deliver housing and services?
- 9. Has HIV/AIDS in relation to housing and services been mainstreamed in the city's Integrated Development Plan?

3.4 Civil Society¹⁹

AIDS social services responses can be classified as:

- general prevention (condom distribution, abstinence, change in sexual behaviour, life skills)
- voluntary counselling and testing
- prevention of mother to child transmission
- post-exposure prophylaxis
- care and support (counselling, support groups, emotional care, nutrition support, orphans and vulnerable children, home-based care, household assistance and palliative care)
- treatment
- human rights and legal assistance.

There is typically a division of labour between government and CSOs. Government departments – social development, health clinics and hospitals, child welfare – dominate in the provision of treatment. CSOs dominate in the provision of care and support. That is, CSO contributions are by and large 'general' as opposed to 'specialised' in nature.

Across the various sectors of response, activities most commonly reported by CSOs are also the ones that require the least technical expertise. Thus, in terms of prevention activity, the emphasis is on educational and outreach work on behavioural change, risk avoidance and life skills, ... Similar patterns can be detected elsewhere: care and support activity concentrates on emotional support, counselling, and supporting families and caregivers, rather than on more specialised functions such as palliative care;

Government institutions, by contrast, appear to dominate the more technical interventions and services, particularly medical ones, including provision of [voluntary counselling testing, prevention of mother to child transmission and post-exposure prophylaxis] and the treatment of [tuberculosis and sexually

¹⁹ This section in large part summarises Birdsall and Kelly (2005).

transmitted infections]. They are notably less involved than CSOs, however, in playing the 'face to face' care and support roles $...^{20}$

3.5 Conclusion

Local governments should align their programmes to prevent HIV infection and to mitigate the impacts of HIV/AIDS with the policies of central and provincial government. However, central policies and programmes do not foresee much of a role for local government and provincial policies envisage a limited role. This may to some degree reflect the perception of the capacity constraints of local government. Despite this, it is expected that all local governments should mainstream HIV/AIDS within their 5-year Integrated Development Plans and the service departments are instructed to take HIV/AIDS into account. Unfortunately central government has to date failed to articulate what this might consist of. This report is, in effect, providing this guidance.

²⁰ Birdsall and Kelly (2005, p. 62)

4. THE CONTEXT FOR LOCAL GOVERNMENT DELIVERY OF HOUSING AND SERVICES

The purpose of Chapter 4 is to situate the role local government within the structure and functions of local, provincial and national government and then to explain its specific responsibilities in respect of housing and services.

4.1 Local Government

Local government in South Africa is constituted as an autonomous *sphere* of government. This means that local government has been granted powers of general competency rather than a schedule of services to be provided while operating as an arm of national or provincial government. The presumption contained within the Constitution²¹ is that all spheres of government will 'co-operate with one another in mutual trust and good faith' (41. (1) (h)).

The role of local government is prescribed in the Constitution.

- 152 (1) The objects of local government are
 - (a) to provide democratic and accountable government for local communities;
 - (b) to ensure the provision of services to communities in a sustainable manner;
 - (c) to promote social and economic development;
 - (d) to promote a safe and healthy environment; and
 - (e) to encourage the involvement of communities and community organisations in the matters of local government.

The detail of these objectives was provided by the 1998 White Paper on Local Government. The central concerns of the White Paper were how best to deliver and to finance service delivery, referring to water and sanitation, waste removal, energy and roads. The delivery of these services is referred to in the White Paper as the 'central mandate' of local government.²²

The ability of local government to carry out its 'central mandate' is premised on institutional capacity and the ability to deliver and to obtain payment for services whilst being able to levy and obtain payment for property rates. In fact perhaps the majority of local governments have proven institutionally and financially unable to sustain this role and a half of the country's local governments are participating in central government's *Project Consolidate* whose intended contributions include

²¹ Constitution of the Republic of South Africa, Act 108 of 1996

²² Department of Provincial and Local Government, 1998, p. 92.

enhancing the capacity of local governments to plan for and to undertake service delivery, and to better manage their finances.

4.2 Local Governments and Service Delivery

Local governments are not required themselves to deliver services. Local governments are required to ensure that services are delivered, whether through providing the services themselves, providing them in partnership with the private sector and/or other organisations, and privatisation. The delivery of water and sanitation, waste removal and energy and maintenance of roads typically exceeds two-thirds of a South African local government's operating budget. The amount will be less in metropolitan areas with more diverse economic activities and more in most other urban centres and in rural areas.

Policy for service delivery originated in the African National Congress' 1994 *Reconstruction and Development Programme*. The programme includes a commitment to meeting the basic needs of all South Africans. Housing and services are included as basic needs. The definition of an adequate house or level of service determines the extent of need. At the time, focusing on urban areas, in government's November 1995 Municipal Infrastructure Investment Framework, the urban services backlog was estimated at:

6. It appears that in respect of all people living in formal and informal urban areas:

- +/- 4 million people (15 percent) only have access to water which is untreated and not reticulated;
- +/- 8 million people (30 percent) only have access to minimal sanitation (i.e. either shared toilet facilities and/or unimproved pit latrines);
- +/- 17 million people (65 percent) do not have access to electricity; and
- +/- 8 million people do not have formal road access to their residence, nor any form of storm water runoff control.²³

Since then services have been delivered at scale. The actual delivery of services was tied to housing delivery, with funding for internal services / serviced stands (e.g. standpipe, electricity) being drawn from the housing subsidy. Since 1994 about 1.7 million housing units have been delivered or are presently under construction.

Government free basic services policy, which was announced in 2000, is that all South Africans should have access to at least a basic services level for free and better if they can afford a higher services level, or if the service provider is able to provide a higher services level through cross-subsidy within the sector.

²³ Ministry in the Office of the President and the Department of Housing (1994, Executive Summary, section 6).

The Municipal Infrastructure Grant is provided to local governments in order, *inter alia*, to provide for the capital expenditure required to provide the services and the Equitable Share subsidy is provided in order to cover the operating costs. Free basic services require little bulk infrastructure, for example, a ventilated improved pit latrine does not require other sanitation infrastructure. If higher services levels are provided then the capital grant and operating subsidy do not cover capital and operating expenditure.

However, cities like Johannesburg, with a more favourable balance of rich households and economic activities to low-income households, seek to provide higher than basic services levels, notably water-borne sanitation for permanent settlements, and undertake intra-sector cross subsidies to reduce the cost of services to low-income households.

4.3 Local Governments and Housing

Housing delivery is not included in Schedules 4 and 5 of the Constitution. Whereas the role of local governments in service delivery follows from the Constitution, the evolving role of local governments in housing follows from experience with the implementation of housing policy.

The right to housing is included in the Constitution's Bill of Rights.

Housi	ng	
26.	(1)	Everyone has the right to have access to adequate housing
Childr	en	
28.	(1)	 Every child has the right – (c) to basic nutrition, shelter, basic health care services and social services;

Responsibility for ensuring housing delivery lies with the national Department of Housing. Housing policy is to be found in the 1994 Housing White Paper, subsequently in the Housing Act, 1997 (No. 107) and in the National Housing Code of 2000. Government's housing vision is:

... the establishment and maintenance of habitable, stable and sustainable public and private residential environments to ensure viable households and communities in areas allowing convenient access to economic opportunities, and to health, educational and social amenities in which all citizens and permanent residents of the Republic will, on a progressive basis, have access to:

a) permanent residential structures with secure tenure, ensuring internal and external privacy and providing adequate protection against the elements; and b) potable water, adequate sanitary facilities and domestic energy supply.²⁴

This vision was largely ignored. The first six or seven years of housing practice is reflected in Government's housing goal.

Government's goal is, subject to fiscal affordability, to increase housing delivery on a sustainable basis to a peak level of 350 000 units per annum until the housing backlog is overcome.²⁵

'The immediate target was one million units within five years.' With a housing backlog in 1994 estimated at 1.5 million units, delivery at scale was the central issue and this was premised on the role of the market. That is, responding to the availability of housing subsidies, the expectation was developers would enter the low-income housing market and participate in the delivery process; and that financiers would also enter the market and provide appropriately designed loan products.

In fact the private sector did deliver subsidised housing units at scale, but private financiers never did come through with low-income loan products. As already observed, since 1994 over 1.7 million subsidised housing units were completed or are under construction; but in the meantime the housing backlog increased to over 1.84 million units.

The housing and services challenge has been profoundly deepened by changing household size.

South Africa has experienced a sharp decline in household size and a consequent marked increase in the number of households. Between 1996 and 2001 the average number of households in the SACN cities grew by 27.5%, more than double the population growth rate. In 1996 the average household size was 4.47 persons; in 2001 it was 4. If the household size had remained constant at the 1996 figure, the increase in the number of households would have been about 950 000. The actual increase was 2.13 million households, a difference of 1.18 million households.²⁶

Private interest in serving as a developer, as opposed to a contractor, has since waned. Over the course of the subsidy's implementation, taking inflation into account, its value and therefore capacity to fund the delivery of housing of a certain standard has decreased. Increasing expectations and requirements for construction meant that the cost of meeting national norms and standards breached the value of the subsidy, which caused many developers to cut corners, in effect, sacrificing quality. In addition, with a view to obtaining cheap land and avoiding the risk of

²⁴ Section 2.1 of <u>http://www.housing.gov.za/Content/The%20Housing%20Code/Part%201/</u> Part%201%20-%20Chapter%202.htm

²⁵ Section 2.2 of <u>http://www.housing.gov.za/Content/The%20Housing%20Code/Part%201/</u> Part%201%20-%20Chapter%202.htm

²⁶ Pillay, et al. 2006 (forthcoming)
delays and holding costs when projects are delayed by local opposition, it was inevitable that developers located new projects on land that is cheap due to its distance from jobs and services.

The withdrawal of private developers helps to explain the present role of local governments as developers that bear the risk of development and subcontract to the private sector the construction of the houses and the installation of the services. In order to maintain delivery, local governments, already suffering from capacity constraints, have had to "pick up the slack".

In 2005 Government introduced housing policy 'amendments' or 'enhancements'. *Breaking New Ground: A Comprehensive Plan for the Development of Sustainable Human Settlements* outlines 'a plan for the development of sustainable human settlements over the next five years, embracing the [ANC electoral platform] *People's Contract* as the basis for delivery.' HIV/AIDS is not mentioned in *Breaking New Ground*.

The Plan draws attention to the failures of housing policy in respect of peripheral, low-income settlements and:

At the heart of this initiative is the move beyond the provision of basic shelter towards achieving the broader vision of sustainable human settlements and more efficient cities, towns and regions. [The initiative includes] progressive informal settlement eradication, promoting densification and integration, enhancing spatial planning, enhancing the location of new housing projects, supporting urban renewal and inner city regeneration, developing social and economic infrastructure and enhancing the housing product.²⁷

This takes one back to the original housing vision. Turning to the role of local governments,

This approach will enable municipalities to assume overall responsibility for housing programmes in their areas of jurisdiction, through a greater devolution of responsibility and resources to municipalities. It is assumed that municipalities will proactively take up their housing responsibilities given that clear guidelines and resourcing will be forthcoming from the national sphere.²⁸

4.4 Conclusion

It is the constitutional responsibility of local governments to ensure the delivery of services and it has become local government's responsibility to develop housing for low-income households. Local governments have not been provided guidance in respect of how housing and services can mitigate the impacts of HIV and AIDS. In

²⁷ Section 3.

²⁸ Section 5.2.

June 2006 the Department of Housing appointed the consultant to prepare a national HIV/AIDS housing policy. The policy is to address inheritance rights and special needs housing, for example, that of orphans.

5. THE CONTEXT FOR INSTITUTIONAL VULNERABILITY

The purpose of Chapter 5 is to describe the nature of local government workplace programmes in South Africa; and then also to point to the need for more comprehensive programmes that address institutional vulnerability and the ability to sustain the delivery of housing and services.

5.1 What Are the Issues?

Local government HIV/AIDS strategies invariably set out to provide prevention and treatment services for the municipal workforce and also seek to prevent discrimination and stigma against local government employees. Local governments have also been concerned about the cost implications of HIV/AIDS among its workers. The Buffalo City Municipality completed the first such study in South Africa in 2005 and the study is reported below. Local governments have not, however, paid much attention to whether HIV/AIDS may threaten their capacity deliver housing and services. These three issues are considered below.

5.2 Workplace Programmes

Cape Town's HIV/AIDS strategy for its labour force has been described as 'best practice'.²⁹ Cape Town's programme seeks to minimise HIV infection and to extend the economic life span of infected employees and also to prevent discrimination against those who are HIV positive.

Buffalo City Municipality's HIV/AIDS strategy, completed in 2005, is also illustrative. The city's HIV/AIDS strategy is intended to:

- 1. To minimise the rate of new HIV/AIDS infections in BCM's [Buffalo City Municipality] workforce and communities;
- 2. To manage and reduce the impact of the epidemic on individuals, families, communities and the Council workforce, and;
- 3. To maximise the level of prevention, treatment, care and support to employees and communities already infected.³⁰

The strategy ... has three main focus areas.

An **Internal Strategy Plan** will focus on a BCM Employee wellness programme, which aims to develop and implement a comprehensive HIV/AIDS workplace program focusing on prevention, treatment, care and support. The thrust of the programme will be peer education and encouraging the uptake of [voluntary counselling and testing]. The

²⁹ Buffalo City Municipality (2005).

³⁰ Buffalo City Municipality (2005, p. 51).

programme will make provision for employees who are both infected and affected by HIV.

An **External Strategy Plan** will focus on providing the broader BCM community with access to a package of HIV/AIDS prevention, treatment, care and support by means of Community One-Stop Centres. These centres will enable communities to access a number of service providers under one roof through partnerships for the provision of social and health support services. Further to this, the strategy makes provision for a Primary Health Care HIV Package which entails the establishment of a dedicated [voluntary counselling and testing] nodal site per BCM-managed Primary Health Care Clinic thereby encouraging access to [voluntary counselling and testing] as an entry point to managing HIV.

In order for BCM to mitigate the impact of HIV on the organisation as an employer and service provider, the **strategy aims to mainstream the HIV programmes** into the daily workings of all BCM's departments so as to promote strategic planning and ensure the sustainability of the municipality.³¹

Institutional sustainability is not addressed beyond recommending mainstreaming and the need to 'look for operational solutions to AIDS-related productivity losses.'

The essential frustration with this strategy is that the call for mainstreaming does not indicate what this might consist of in respect of housing and services and institutional vulnerability.

5.3 HIV/AIDS Workforce-Related Costs to Local Government

The conceptual underpinnings of Buffalo City Municipality's costing of the impacts HIV/AIDS strategy are shown in Figures 3 and $4.^{32}$ Figure 3 correctly shows that after an individual is infected there are initially no costs to the productivity of the individual and the employer. Thereafter, the costs implications for local governments parallel the progression through WHO Stages 2, 3 and 4 and the costs associated with replacing persons who are leaving the local government's labour force.

³¹ Buffalo City Municipality (2005, p. 66).

³² Both Figures have been adapted slightly from the original Figures 7.1 and 7.2.

Figure 3. Progression of HIV/AIDS costs



In the case of Figure 4, the items marked with * were included in the costing exercise, with these being the items in the Figure where credible values could be derived. These costs mostly refer to costs to individuals, as costs to the organisation are much more difficult to determine and the necessary data are lacking. The bottom right box was labelled by the consultant as 'institutional vulnerability' and it is these factors, left uncosted, that are believed to be most important for housing and service delivery.

Figure 4. Direct and indirect costs for local governments arising for HIV/AIDS

	Increased expenses / Direct costs	Lost productivity / Indirect costs
Individual costs – From one employee with HIV/AIDS	 Predictable and easy to measure Benefits payments* Medical care* Recruitment of a replacement worker* Training of a replacement worker* 	 Less predictable and difficult to measure Increased leave and absenteeism* Reduced on-the-job productivity* Supervisor's time* Vacancy until replacement is hired* Poorer performance due to replacement's inexperience*
Organisational costs – From many employees with HIV/AIDS	 Less predictable and limited data Benefits premiums* Accidents due to sick or inexperienced employees Litigation over benefits, dismissals etc. 	 Institutional vulnerability Production or service failures or disruptions due to missing skills, accidents, vacant positions, etc. Loss of institutional memory and experience Breakdown of workforce morale and cohesion Diversion of senior manager's time Deteriorating labour relations

The costing exercise immediately draws attention to the direct costs and indirect costs and how they differ between skill and managerial levels. The cost of unskilled labour almost entirely comprises direct costs. More than 50% of the cost of management comprises indirect costs. Further, the highest HIV prevalence is found among unskilled labourers. The significance lies in the fact that the highest HIV prevalence is found among the labour force that is cheapest and easiest to replace; and that it is expected that few supervisors and managers will need to be replaced as a result of AIDS-related terminations. The available data are shown in Table 2.

Table 2. HIV prevalence and cost variations according to skill level

	HIV prevalence	AIDS-related terminations
Semi-skilled	11.7%	26
Skilled	7.4%	4
Supervisors		5
Managers	3.7%	1

The calculation of the labour costs leads to a surprisingly low cost.

To estimate the total cost of these terminations in 2004, the cost per AIDSrelated termination was multiplied by the number of terminations expected in each job band and employee category. ... The overall cost to BCM, 0.9 percent of salaries and wages, represents a modest increase in labour costs. This is due largely to the fact that the great majority of AIDS cases will be among semi-skilled workers, for whom the cost per employee lost to AIDS is quite low. AIDS-related mortality is on an upward curve in South Africa. BCM can expect its costs to rise steadily for at least the next five years, unless an effective treatment intervention is introduced or costs are contained in other ways.³³

A figure of 0.9% of salaries and wages, even if likely to increase, does not suggest that here lies a threat to institutional sustainability. However, the figure does seem to be rather low and one waits to see if calculations of this sort are matched in other local governments.

5.4 Institutional Vulnerability

Then what of institutional vulnerability? When the consultant asked local governments the following questions he received 'no' for each question?

- 1. Has the city assessed the impact of HIV/AIDS on the ability of the City to serve as a housing developer? Absenteeism, early retirement, institutional memory loss ...
- 2. Has the city assessed the impact of HIV/AIDS on the ability of the City to manage and provide services? Absenteeism, early retirement, institutional memory loss ...
- 3. Has the city identified which operations areas are most vulnerable?
- 4. Has the city identified which positions in the institutions are critical to maintaining service delivery?
- 5. Is the city engaging in succession planning?

In the case of Johannesburg, the answer 'no' was also received in respect of:

6. Does the city have workplace HIV/AIDS prevalence information?³⁴

Perhaps one cannot expect local governments to focus so specifically on housing and services. Instead, in Figure 4 above, a generic set of factors was identified in Figure 4 that looks at institutional vulnerability.

³³ Buffalo City Municipality (2005, p. 51).

³⁴ A prevalence survey has been conducted, but its results have been questioned and have not been released.

Production or service failures or disruptions due to missing skills, accidents, vacant positions, etc. Loss of institutional memory and experience Breakdown of workforce morale and cohesion Diversion of senior manager's time Deteriorating labour relations

One should perhaps "make do" with the strategies called for in the Department of Provincial and Local Government, the South African Local Government Association and the SACN's *Managing HIV and AIDS in the Municipal Workplace: A Guideline for Local Government*, which was published late in 2005.

The relevant strategies called for are skills development, recruitment and retention, exit management, performance management and employee health and well-being.³⁵ If generic strategies of this sort are effectively implemented for a local government, then institutional vulnerability will be being addressed. What does become apparent, however, is the obvious: the biggest contribution to institutional sustainability is preventing the local government work force becoming infected and then treatment and extending the productive life of the infected.

5.5 Conclusion

Workplace programmes and efforts to restrain the labour force costs of HIV/AIDS contribute to sustaining institutional capacity, but institutional vulnerability is not being directly addressed by the policies of local governments with which the consultant is familiar. One's sense is that a high turn-over and a deskilling of staff will reduce the effectiveness of local government and will diminish capacity to reduce housing and services backlogs and to focus on needs arising from HIV/AIDS, but to what extent is the turnover occurring and how far-reaching will the effects be? The dearth of local government studies in this area prevents definitive statements.

³⁵ Department of Provincial and Local Government, et al. (2005, Part D, p. 86)

PART 3. CITY CHARACTERISTICS, INSTITUTIONS AND POLICIES

6. AN INTRODUCTION TO THE CITY OF JOHANNESBURG³⁶

The purpose of Chapter 6 is to provide the reader with a general introduction to Johannesburg and an understanding of its housing and services, management and HIV/AIDS policies.

Map1 shows South Africa's nine largest cities, which are the member cities of the SACN, the nine provinces and population density.

6.1 Population

Johannesburg is South Africa's largest city, with the population in 2001 census reported as 3.2 million persons, which was equal to 7.2% of the national population.



Map 1. Cities comprising the South African Cities Network

³⁶ The statistics employed in this chapter are drawn from the overlapping data contained in the City of Johannesburg (2006, 2005a) and the SACN (2004).

Johannesburg is located in Gauteng province, which includes two other metros – Ekurhuleni and Tshwane. Johannesburg, Ekurhuleni and Tshwane abut one another and, referring to Table 3, in 2001 together represented one large conurbation of 7.7 million persons. This was equal to 17% of South Africa's population and a third of the country's urban population. Their share of both measures is increasing.

	Projected 2001 (million)	Population growth p.a. (%) (1996 – 2001)
Johannesburg	3 225 812	4.1
eThekwini (Durban)	3 090 121	2.4
Cape Town	2 893 246	2.5
Ekurhuleni (constructed from towns on the East Rand)	2 480 277	4.1
Tshwane (Pretoria)	1 985 983	3.4
Nelson Mandela Bay (Port Elizabeth)	1 005 778	0.7
Buffalo City (East London)	701 890	0.6
Mangaung (Bloemfontein)	645 441	1.4
Msunduzi (Pietermaritzburg)	553 223	1.2
National	44 819 778	2.0

Table 3.	Comparative	population	size and	growth rates	s ³⁷
				J	-

In the first instance, this increasing share of the *urban* population is because the urban population growth rates of Johannesburg, Ekurhuleni and Tshwane, respectively at 4.1%, 4.1% and 3.4% per annum between 1996 and 2001, were considerably higher than that of other large cities and most other urban centres. Between 1996 and 2001 the other large cities grew at between 2.45% per annum in Cape Town and 0.57% per annum in Msunduzi. In the second instance, this increasing share of the *national* population is because their growth rate was about double the national population growth rate.

Migration is obviously a significant source of growth. In the case of Johannesburg, net migration into the city between 1996 and 2001 was about 115 000 persons. This is equal to 3.57% of Johannesburg population in 2001; but if one excludes movement within Gauteng province, migration from outside the province into Johannesburg was equal to 2.63% of its 2001 population.

To a significant degree what one presently sees are the affects of *past* rapid migration into Gauteng. The potential for further migration is declining because the country's population growth is slowing so dramatically, being projected at 0.5% in 2010, coupled with the fact that the major impacts of AIDS-related deaths are located within the age cohorts most likely to migrate. The pool of migrants is "drying up".

³⁷ The city population growth between the 1996 and 2001 censuses is taken from the SACN (2004, p. 38).

It is perhaps no surprise that Johannesburg's and Gauteng's are projected to enter into a very slow population decline, beginning in 2014. Whether or not a population decline actually occurs, it seems safe to say that planning for the city's future should be based on rapidly slowing population increase and ultimately zero population growth. The demographic projections are provided in the next chapter.

6.2 Households and Housing and Services Backlogs

In the 2001 census Johannesburg was reported as having 1 006 932 households. The represents an increase of 38% between 1996 and 2001, 16% more rapid than the population increase of 22%. The difference in growth rates is due to a declining household size, which dropped from 3.8 to 2.9 persons per households between 1996 and 2001. Household size is markedly lower than the national comparison presented earlier, declining from 4.7 and 4.0 persons per household. It is unlikely that the number of households will continue to increase rapidly. With Johannesburg's population growth slowing to zero, and with the city's household size now being so low, what is the potential for further growth in the need for housing and services?

In 2001 22% of the households lacked formal housing and 15.5% lacked on-site water. Approximately 63% of households lacking formal housing lived in slums and most of the balance lives in backyard shacks. While the number of dwellings in slums is increasing, the number of backyard shacks in formally serviced parts of the city is declining slowly.

In regard to housing, a backlog of 22% may not be large by standards of other large cities in Africa, but they are significant in a country whose Constitution provides all citizens with the right to housing and where government has as one of its political commitments that housing and services should be provided for all citizens. Indeed citizen expectations of receiving housing subsidies is credited with helping to explain the decline in household size, that is, households seeking to maximise receipt of subsidies through fragmenting into smaller household units.

In regard to services, the City of Johannesburg's goal is that all households will have at least a basic level of water service by 2008 and sanitation by 2010. However, the City is committed to ultimately providing more than a basic level of service for free. For example, current policy is that all households be provided water for free when this is associated with yard taps and water-borne sanitation where water is carried in a bucket to flush the toilet, so limiting the consumption of water.

However, the City is uncertain whether low-income households will be able to afford the consumption of services that will result and whether the city/utilities will be able to afford expected levels of non-payment. Final decisions in this respect await the conclusion of research into the tariffs necessary to afford higher services levels; all the while noting that the tariffs must take account of considerable capital expenditure to rehabilitate, replace and expand existing networks and treatment works. The research will feed in the City's 'social package' that, at the time of preparing this document, was being revised. The social package concerns the support provided to poor households and those with special needs, for example, child-headed households; and free services are a central feature of the social package.³⁸

6.3 Economy

In 2002 Johannesburg's share of the national economy was 16.6%, slightly more than double its share of the national population. The three metros in Gauteng together contributed 34% of the nation's economy.

Johannesburg's economy is based on the sectors one would expect to find in the country's economic centre: financial, insurance and business services, wholesale and retail trade, and transport and communications. These figures are a little distorted by the divide between the three metros and their integrated economies. For example, Johannesburg International Airport is located in Ekurhuleni. Nonetheless, Johannesburg's more significant economic sectors, presented in terms of their share of the national economy (gross value added), are as follows.

Finance, insurance and business services	29.3%
Wholesale and retail trade	20.6%
Transport and communications	18.2%
Construction	17.2%
Manufacturing	13.4%
Community and social services	12.1%

Despite its economic predominance, or perhaps because of the migration to which this predominance gave rise, the 2001 census indicated that unemployment stood at 37.3%, which is sharply up from 29.1% in 1996. Employment trends in Johannesburg reflect those of the nation:

- increasing capital and skill intensity of jobs
- the move from historically lesser-skilled jobs in agriculture, mining and manufacturing (to the disadvantage of the African and "coloured" labour force) in favour of finance, insurance and business services and social services, with the country seeing the emergence of a multi-racial middle class
- until recently, a prolonged period of declining formal sector unemployment
- ongoing growth of informal sector jobs
- increasing unemployment because new entrants to the labour force considerably exceed the number of jobs being created.

³⁸ Information for this and the preceding paragraph was provided by Kathy Eales, 3 May 2006.

These trends are reflected in the extent of poverty in Johannesburg. Approximately 51% of the city's households earn less than R1 600 or about US\$260 per month; although it is believed that this figure excludes the value to many households of social grants (e.g. old age pensions, disability grants, child support grants). Figures of this sort inform the City's concerns regarding the ability of households to pay for services.

6.4 Arrangements for Service Delivery

Service delivery in Johannesburg experienced a period of considerable institutional and financial disarray. The City of Johannesburg³⁹ has documented this in detail in its *Reflecting on a solid foundation: Building developmental local government 2000 – 2005.* In brief therefore, in 1990, when Nelson Mandela was released from prison and the African National Congress was unbanned, Johannesburg had 13 racially-based local government structures. Most were institutionally and financially unsustainable and the restructuring of local governments saw the grafting of these various structures onto what had previously been white local governments. Between 1990 and 2000 the restructuring of local government, its restructuring again and the financial crisis of 1997 led to the creation of a single tier metropolitan government with 11 administrative regions. The structure of Johannesburg's administration is shown in Figure 5.

³⁹ City of Johannesburg (2006a).

Figure 5. Structure of the City of Johannesburg

Council

Executive Mayor & Mayoral Committee

City Manager Chief Operating Officer Finance and Economic Development Corporate Services Development Planning, Transportation and Environment Contract Management

Utilities Johannesburg Water City Power Central Departments Housing Health Social Development and others

Agencies Pikitup (waste removal) Johannesburg Roads Agency Johannesburg City Parks Corporatised Entities Metrobus Johannesburg Zoo and others

To explain, housing is a department within the municipal bureaucracy. Low-income housing projects are identified in the city's Integrated Development Plan and, as national housing policy has evolved, the city is supposed to deliver houses and overcome the housing backlog.

The utilities that provide the water and sanitation and energy services are separate companies, wholly owned by the city, that have Service Delivery Agreements with the city. These agreements include the services levels to be provided, for example, water-borne sanitation or a ventilated improved pit latrine, and the extension of services connections to households in order to overcome backlogs. Service Delivery Agreements are for five years. Tariffs are revised annually.

Agencies are like the utilities in that they are separate companies that are wholly owned by the City of Johannesburg; however they differ from utilities in that they are unable to generate an income from user fees. Waste removal is provided by Pikitup, an agency.

The significance of the Johannesburg Water and City Power utilities is apparent if one includes the income they generate with the city's budget. Johannesburg's operating budget for 2005/06 is R16 billion (or about \$2.6 billion in February 2006). The income for this budget is generated from:⁴⁰

Electricity	25.8%
Property rates	21.6%
Water and sewerage	21.1%
Regional levies (a tax on employment and turnover)	11.6%
Subsidies (in large part for low-income housing and services)	7.7%
Refuse collection	2.8%
Fees, licenses and permits	2.4%
Other	7.0%

Services generate about 50% of the city's income and property rates another 22%. The subsidy category of 7.7% includes central government operating subsidies for the delivery of housing and free basic services. An aspect of this budget is that Johannesburg, now that it has largely recovered from its financial crisis, through generating over 90% of its own income, is to some degree independent of central government financial support and therefore also of central government influence.

6.4 Johannesburg's HIV/AIDS Strategy, Workplace Programme and Questions Regarding Housing and Service Delivery

The 'Long-term strategic interventions' envisaged in the City of Johannesburg's Growth and Development Strategy are:

- In partnership with communities, civil society and other spheres of government, help to prevent the spread of HIV & AIDS through community mobilisation, information, condom provision, et cetera;
- Provide a comprehensive package of support to HIV & AIDS affected and infected households/citizens and facilitate the roll-out of ART in the city (for example by supporting treatment adherence);
- Strengthen the capacity of communities to manage the impact of HIV & AIDS; and
- Anticipate and mitigate the impact of HIV & AIDS on the City's own workforce.⁴¹

These interventions are typical of the prevention, care and support role of local governments.

The City's *Workplace Wellness, HIV and AIDS Policy* is based on three elements: treatment, 'care through on-site counselling and psycho-social support ...' and 'support through the fostering of a non-discriminatory workplace environment and

⁴⁰ City of Johannesburg (2005b, p. 21)

⁴¹ City of Johannesburg (2006b, p. 105)

trained peer educators who promote awareness and prevention'...⁴² These elements do not take into account institutional vulnerability and continuity of service delivery.

Turning to the question regarding the extent to which housing and services policies take account of HIV/AIDS, it appears that housing policy does not. Planning for housing and services in Johannesburg presently focuses on overcoming existing backlogs.⁴³ In contrast, sophisticated attention is being paid to HIV/AIDS in the preparation of services policy.

Eradicating water and sanitation backlogs and improving water services is one of the most powerful intervention strategies the City has to minimise and mitigate the pain and suffering of those affected and infected by AIDS, and support sound immune functioning among its residents.

For example, if backlogs are eradicated and there is a general increase in Free Basic Water allocations to poor households, one could argue that the special needs of those who are vulnerable – i.e. HIV positive but not AIDS sick – are addressed.

Clearly special measures should be considered for those who are AIDS sick – i.e. Stage 4 infection; it is this group who are have additional water services needs, and who warrant special measures. The City has now begun work to investigate the needs of this group in more detail, to inform appropriate measures and mechanisms to provide appropriate support.⁴⁴

6.5 Conclusion

Urbanisation policy and policy for the delivery of housing and services in developing countries in Africa is premised on rapid urban growth. This is incorrect for Johannesburg and for most of South Africa's large urban centres. Instead, policy has to be shaped in anticipation of zero population growth and continued economic growth. In Johannesburg, given housing and services subsidies, it really is possible to imagine catching up with housing and services backlogs. This sets Johannesburg apart from, say, Lagos and Nairobi with their profound housing and services backlogs, in that the City of Johannesburg can envisage care needs requiring not so much additional services connections as increased consumption, at no charge, using existing services needed to overcome and housing and services backlogs provide a case study that will not always be comparable with circumstances elsewhere in Africa.

⁴² www.joburg-archive.co.za/2005/pdfs/hiv.pdf

⁴³ Samantha Naidu, 4 May 2006, City of Johannesburg.

⁴⁴ Kathy Eales, 3 May 2006.

7. HIV/AIDS PREVALENCE IN SOUTH AFRICA, GAUTENG AND JOHANNESBURG

The purpose of Chapter 7 is to present HIV/AIDS prevalence projections in South Africa, Gauteng and Johannesburg, to describe how prevalence varies amongst groups according to race, age group, gender and location and to identify the implications for local government delivery of housing and other services.

7.1 HIV/AIDS Projections for South Africa

The projections reported in Table 4 for persons over 14. (In regard to children less than 14 years old, the number of children in Stages 1 to 3 are 211 000 and the number in Stage 4 are 33 000.) The projections are based on assumptions pertaining to the effectiveness of:

- information and education campaigns,
- improved treatment of sexually transmitted diseases,
- voluntary counselling and testing,
- mother-to-child transmission prevention, and
- antiretroviral treatment.⁴⁵

Table 4. Projected population, number of HIV positive, AIDS sick and cumulative AIDS deaths for 1990-2015, ASSA2002 (default scenario)

Year	Total population	Annual growth rate	Total HIV+	% HIV+	Cumulative AIDS deaths	Total AIDS sick
1990	35 538 787	1.8%	38 597	0.1%	326	293
1995	40 153 091	2.7%	943 590	2.3%	20 662	16 135
2000	43 966 756	1.4%	3 731 645	8.5%	318 697	194 424
2005	46 156 343	0.7%	5 165 797	11.1%	1 542 169	589 454
2010	47 380 126	0.5%	5 408 621	11.4%	3 404 415	692 511
2015	48 294 565	0.3%	5 407 945	11.2%	5 358 501	742 261

The projections show that interventions have had and are having a significant impact on the course of the epidemic. The [Prevention of Mother to Child Treatment] programme has reduced the number of babies infected and behaviour change, in particular, has seen an increase in condom use and has reduced the number of adults infected. The national ART programme can be expected to play a particularly important role in the future outcome of the epidemic. ... the model projects that by 2010, there are likely to be roughly

⁴⁵ Dorrington et al., (2004, p. 8)

381 000 AIDS deaths per annum rather than the 495 000 that would have been expected if no ART programmes were introduced. In the default scenario, it is assumed that ultimately only about half of South Africans who need ART will be able to access it. If we assume that only 20% manage to access ART then the estimated number of AIDS deaths in 2010 increases to 450 000, but if the proportion is as high as 90% the number of AIDS deaths would be reduced to 290 000.⁴⁶

Key points contained in Table 4 are that

- 1. The rate of increase in South Africa's population is rapidly slowing.
- 2. Despite increasing access to ART, AIDS-related deaths continue at scale.
- 3. The proportion of the country's population that is HIV positive peaks in 2008 with a prevalence of 11.42%, although the absolute number of persons infected with HIV/AIDS peaks later in 2013, with about 5.4 millions persons having HIV or AIDS.
- 4. The number of people who are in WHO Stage 4 and are AIDS-sick increases to about 693 000 in 2010 and 742 000 in 2015.
- 5. Due to the time delay between HIV infection, the onset of AIDS and AIDS-related deaths, despite South Africa's having had a high HIV prevalence for a number of years; it is only since the turn of the century that AIDS deaths have started to increase rapidly.

It is arguable that the foremost impacts of HIV/AIDS on household income, the demand for housing and services, and municipal management now occur after the death of the AIDS-sick individual(s). For example, the cumulative number of AIDS deaths in 2010 is projected to be about 4.5 times the number of AIDS-sick in that year. Essentially what one is referring to is the reconfiguration of households and their ability to cope.

There is presently no empirical basis for projecting how households are reconfiguring. This is a critical gap for local governments. Whereas most social grants and medical services provided by provinces are directed to individuals, most services provided by local governments are directed to households. Taps, for example, are connected to a stand, a household is billed for water consumption and it is a household's income that goes towards paying for services consumption above a free basic services level.

⁴⁶ Dorrington et al., (2004, p. 11)

7.2 How Prevalent is HIV/AIDS in Gauteng and Johannesburg?

South Africa, Gauteng and Johannesburg⁴⁷

The prevalence of HIV/AIDS in Johannesburg is marginally higher than in Gauteng province and significantly higher than in the rest of South Africa. The projections contained in Table 5 indicate that HIV/AIDS prevalence in Johannesburg will peak in 2008/09 and, as is to be expected due to the delay between HIV infection and the onset of AIDS, Johannesburg's population peaks in 2014 and declines slowly thereafter. The decline in Johannesburg's and Gauteng's population is initially a surprise due to the flow of migrants to Johannesburg, but then one has to take account of the slow national population growth rate and the decreasing number of potential migrants. The Johannesburg and Nelson Mandela Bay comparison later in this chapter provides insight into this issue.

	South Africa		Gauteng		Johannesburg	
Year	Population	% HIV	Population	% HIV	Population	% HIV
2000	44 871 939	7.9%	8 509 554	10.2%	3 100 495	10.5%
2005	47 486 216	11.0%	9 398 354	14.4%	3 436 045	14.7%
2010	49 147 177	11.8%	9 722 312	14.8%	3 549 233	15.0%
2014*	50 123 161	12.0%	9 786 880	14.1%	3 570 774	14.3%
2015	50 328 900	12.0%	9 781 056	13.9%	3 569 507	14.1%
2020	51 196 613	11.9%	9 687 299	12.9%	3 548 955	13.1%

Table 5. South African, Gauteng and Johannesburg population and prevalencecomparison

The stage of the epidemic in South Africa is slightly behind that of Gauteng, and HIV prevalence peaks at a slightly lower level. It is not anticipated that South Africa's population will decline.

The anticipated decline in Johannesburg's population means that any ongoing increase in demand for housing and services connections will come from the decline in household size, and stop when that decline stops. Housing policy in South Africa and in most major cities in developing countries is predicated on continued growth in demand for housing. It seems that in Johannesburg this will cease to be the case.

HIV prevalence according to WHO Stages

Table 6 takes the next step and points to the number of people who are in WHO Stages 1 to 4. It is these persons whose productivity will be seriously impaired (later in Stage 3) or who will be unable to sustain productive activities (Stage 4). It is here where health care will require increased services levels and declining household

⁴⁷ The explanation for the slight difference in South Africa's population numbers and HIV prevalence in Tables 4 and 5 is contained in 'Notes Regarding the Data and Projections'.

incomes will threaten the ability to provide the care. If one arbitrarily assumes that a half of the persons in Stage 3 will have impaired productivity, then 26% of Johannesburg's HIV positive population will be unable to undertake productive activities or be experiencing increasing periods of being unproductive. This percentage also provides a basis for calculating the need for home-based care.

Table 6	6.	The	World	Health	Organisation	clinical	staging	system	for	HIV
Infectio	n an	nd Di	sease i	n Adults	and Adolesce	ents (mid	-2004) ⁴⁸			

Stage	Number adults (14+) infected by stage					
	South Africa	Gauteng	Johannesburg			
Primary HIV infection &						
WHO 1. Asymptomatic	1 476 000	428 976	160 966			
WHO 2. Early disease	1 098 000	292 455	109 775			
WHO 3. Late disease	1 671 000	439 334	163 700			
WHO 4. AIDS sick	534 000	122 449	45 242			

However all will not be as it seems! This is because an increasing proportion of persons whose CD4 levels have dropped to below 200 will be receiving ART. Table 7 provides the relevant projections. For example, it is projected that in 2010 32 476 persons in Johannesburg will have a CD4 level of below 200 and not have had access to ART, 95 638 persons will be receiving ART and have CD4 levels that have recovered to levels that provide protection against OIs, and 10 353 will for one reason or another have discontinued ART.

Table 7.	Projected	number	of	people	in	Johannesburg	in	WHO	stages	1-4,
assuming	access to	ART								

Year	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
2000	155 668	78 106	77 348	14 685	-	-
2005	155 902	109 268	176 265	47 705	13 453	1 224
2010	128 295	88 380	178 164	32 476	95 638	10 353
2015	108 949	67 336	139 846	24 653	144 493	17 660
2020	103 786	58 935	112 658	19 230	149 938	19 368

The projections suggest that in 2010 persons who are AIDS-sick will number 32 476 plus 10 353, which equals 42 829. This number is less than that in 2005 and is expected to continue declining due to increasing availability of ART. Further, because HIV prevalence will often occur among partners sharing a residence, the number of households affected will certainly be less than 40 000. These are very important points for planning for services levels because it seems that the AIDS-sick

⁴⁸ The South Africa projections are based on the ASSA2002 model and the Gauteng and Johannesburg projections are based on the ASSA2003 model. Comparison of the three columns should refer to the 'Notes Regarding the Data and Projections'.

burden on service delivery is higher at present than it will be in the future. Further, if an increase in services levels is motivated solely by the need to provide care to the AIDS-sick, then services costs for the city and its residents will increase while the number of persons who benefit in any given year will be few. It seems that if arguments are to be put forward for increasing services levels, then it cannot be solely to improve the care for those who are AIDS-sick.

AIDS and non-AIDS deaths

Table 8 suggests that there will be almost as many non-AIDS deaths as AIDS-related deaths, but this is misleading. AIDS-related deaths are more likely to engender poverty. Reasons include the fact that deaths mostly occur among young and middle-aged adults whose earnings are lost to households, the extended period during which an income is not earned and a household's assets drained, and the difficulties households experience in recovering financially.

Table	8.	Johannesburg's	population,	non-AIDS	and	AIDS	deaths	and	ΗIV
preval	enc	e							

Year	Population	Non-AIDS deaths	AIDS deaths	% HIV
2000	3 100 495	22 356	11 321	10.5%
2005	3 436 045	25 184	30 563	14.7%
2010	3 549 233	27 177	33 153	15.0%
2015	3 569 507	29 184	35 292	14.1%
2020	3 548 955	31 633	32 901	13.1%
Cumulative of	deaths, 2000 - 2020	322 022	377 820	

Orphans

Table 9 provides the projected number of maternal orphans (lost the mother or the mother and father) for South Africa, Gauteng and Johannesburg. The number of AIDS orphans are not provided for Johannesburg as the numbers could not be provided with confidence. The number of maternal orphans is increasing very rapidly and, as can be seen from the proportion that are AIDS orphans, the stage has been reached where there is little reason to differentiate between AIDS and non-AIDS orphans, that is, unless the orphan is HIV-positive, for then special care might be needed.

		2000	2005	2010	2015	2020
South Africa	Total	714 059	1 351 768	2 076 375	2 407 709	2 415 270
	AIDS	157 752	829 402	1 637 096	2 053 332	2 118 895
	% AIDS orphans	22%	61%	79%	85%	88%
Gauteng	Total	100 454	242 530	404 468	465 713	430 402
	AIDS	27 651	168 589	339 438	412 258	387 650
	% AIDS orphans	28%	70%	84%	89%	90%
Johannesburg	Total	34 997	83 914	139 446	160 343	148 310
Johannesburg according to age						
	0-5	5 651	15 550	17 828	15 070	12 772
	6-11	12 143	31 923	53 398	53 887	45 422
	12-17	17 203	36 441	68 221	91 386	90 116

Table 9. Projected number of maternal orphans, 2000 – 2020

It is not all that clear what one is to make of numbers such as these. The reason is that in many cases extended family and the community will care for orphans and the numbers do not mean, literally, persons requiring an institutional response. For example, a survey in the Gauteng Intersectoral AIDS Programme reports that 80% of the families said that they were willing to care for a relative with AIDS.⁴⁹ But does this depend on the age of the person concerned? One assumes that the younger the orphan the greater the need for care and, of course, the child support grants stop at 14. There is an incentive to provide care for the young, but not for older teenagers. Table 9 shows that the number of orphans within age groups 0 - 5, 6 - 11 and 12 - 517 is rapidly moving towards older teenagers. Are there implications for an increase in the number of street children? If so, local governments will need to provide very different facilities. Unfortunately one does not know the forms in which household reconfiguration is taking place.

7.3 Where and Amongst Whom is HIV/AIDS Most Prevalent?

An idea regarding where and amongst whom HIV/AIDS is most prevalent is provided by the Nelson Mandela/Human Sciences Research Council (NM/HSRC) survey.

The most important demographic predictors of HIV are: race, age, sex of respondent, locality type and province of residence.⁵⁰

 ⁴⁹ Gauteng AIDS Programme (2002/3, p. 31)
 ⁵⁰ NM/HSRC (2002, p. 56)

In essence, HIV prevalence is higher the higher the proportion of the population that:

- is African
- is female
- lives slums in cities⁵¹ •
- lives in high prevalence provinces
- falls within especially the 20-24, 25-29 and 30-34 age cohorts.

Race

The significance of race is apparent in Table 10. Comparing the two extremes, HIV prevalence is 22 times higher among Africans than among whites.

Table 10. HIV prevalence among respondents 2 years and older according to race, 2005⁵²

Race	% HIV+
African	13.3
Coloured	1.9
Indian	1.6
White	0.6

Gender

The significance of gender is apparent in Figure 6. Figure 6 shows that prevalence rises very rapidly among young women and is much higher among women than men in the 20-24 age cohort. Prevalence among women remains higher in the 25-29 age cohort, where it reaches a remarkable 29.7%. HIV prevalence among men and women becomes about the same in the 30-34 age cohorts, whereafter prevalence among men becomes higher than that among women.

⁵¹ In South Africa one generally refers to informal settlements and not to slums. Slums have been referred to in this report because the readership is international. ⁵² HSRC (2005, Figure 3.4)



Figure 6. Estimated prevalence of HIV by sex and age in South Africa, 2004⁵³

Slums

The significance of slums in cities is apparent in Table 11. HIV prevalence is significantly higher in urban slums, at about 17.6%. Over a quarter of the urban informal population between 15 - 49 years old is HIV positive. The difference with urban formal areas, where HIV prevalence is about 9.1% and 13.9% for those between 15 - 49 years, is overstated because the relevant difference between urban formal areas and slums is amongst Africans, with this data being unavailable.⁵⁴ The reasons for the higher prevalence in slums become obscure when one compares the NM/HSRC 2002 and HSRC 2005 surveys. Whereas in the 2002 survey it was reported that 'The rate of multiple partnerships is higher (23.5%) among those living in urban informal areas than among those who live in ... urban formal areas (10.2%)' (p. 104); in its 2005 survey the HSRC retracted with the observation that 'the proportion of males with more than one partner from urban formal areas' (p. 70).

⁵³ HSRC (2005, Figure 3.1). The bar charts have the mean at the top of each column and then a line which indicates the width of the 95% confidence interval.

⁵⁴ This is because slums are almost entirely occupied by African and, due to differences in prevalence between the races, an exploration of the implications of locality type is best undertaken within racial groups.

Table 11. HIV prevalence according to locality type, 2005⁵⁵

Type of settlement	HIV+	HIV+ 15 – 49 years
Urban formal	9.1%	13.9%
Urban informal	17.6%	25.8%
Rural informal (former homelands)	11.6%	17.3%
Rural formal (commercial farming areas)	9.9%	13.9%

Age, race, and gender

Combining age, race, and gender, as in Table 12, HIV prevalence is markedly higher among African women than the mean for South Africa. HIV prevalence peaks at 37.9% in the 25 to 29 age cohort, lower than 38.5%% recorded at ante-natal clinics. Indeed, HIV prevalence recorded at ante-natal clinics is higher for every age group.

Table 12. HIV prevalence among African women according to age group, **2005**⁵⁶

Age group	African females, HIV+
15 - 19	11.1%
20 - 24	27.3%
25 - 29	37.9%
30 - 34	31.7%
35 - 39	24.1%
40 - 49	14.3%

This finding leaves one uncertain about the role of migration, that is, if migrants are more than proportionately located in slums. In the 2002 NM/HSRC survey it is reported that 'Migration is a risk factor for HIV and other STIs because migrants are more likely than non-migrants to have additional partners."⁶⁷ This view is repeated in the 2005 survey and linked to the high HIV prevalence in urban slums.

Provinces

In regard to provinces, as can be seen in Table 13, HIV prevalence differs markedly among the provinces, ranging from 16.7% in from KwaZulu Natal (major city Durban) to 16.0% in Gauteng (major city Johannesburg) to 1.9% in the Western Cape (major city Cape Town). It is to be expected, for example, that HIV prevalence in slums in Durban and Johannesburg will be a defining health and development problem, but that the same will not be true in Cape Town.

⁵⁵ HSRC (2005, Table 3.17 and Figure 3.9) ⁵⁶ HSRC (2005, Figure 3.11)

⁵⁷ NM/HSRC (2002, p. 4)

Province	HIV+
KwaZulu Natal	18.4%
Free State	16.7%
Mpumalanga	16.5%
Gauteng	16.0%
North West	15.1%
Eastern Cape	11.3%
Limpopo	11.0%
Northern Cape	7.9%
Western Cape	1.9%
South Africa	10.8%

Table 13. HIV prevalence among respondents 2 years and older by province, **2005**⁵⁸

Lastly, the significance of age cohorts, combined with migration and locality type, is provided by a comparison between Johannesburg and Nelson Mandela Bay. In Johannesburg, between 1996 – 2001 the 'number of people in the typically migrating 15-34 age bracket grew 27.8%.⁵⁹ In contrast, in Nelson Mandela Bay, over the same period, the number of people in the 20-34 age bracket declined.

Figures 7 and 8 provide the population pyramids for Africans in 'urban formal' and 'urban informal' in Johannesburg and Nelson Mandela Bay.⁶⁰

⁵⁸ HSRC (2005, Figure 3.2).

 ⁵⁹ SACN, (2004, p. 29)
 ⁶⁰ Figures 7 and 8 were provided by Johan Calitz, Development Bank of Southern Africa.

Figure 7. Johannesburg African urban formal and informal populations according to age (African population)





Comparing the urban formal and informal populations in Johannesburg, it is apparent that:

- a smaller proportion of the population in slums is elderly or aged between 4 19
- a higher proportion of the population is found in the 20 39 age cohorts, with HIV prevalence being in this age group
- there are more men than women in the high HIV prevalence age cohorts in slums in Johannesburg.

The small proportion of the population in the 10 - 19 age group predicts a sharp drop in household formation.

The findings are not the same in Nelson Mandela Bay.



Figure 8. Nelson Mandela Bay African urban formal and informal populations according to age



In the case of Nelson Mandela Bay:

- while the distribution of the population in slums is weighted toward the 25 39 age cohorts, this is not nearly as pronounced as in Johannesburg
- the distribution of the formal urban population is weighted towards youth, whereas that of Johannesburg is weighted towards those of working age
- a far higher proportion of the population in the slums in Nelson Mandela Bay falls within the youth category.

The interpretation of the Figures is that South Africa's working age population is concentrated in cities with growing economies, which essentially comprises the three metros in Gauteng and also to a lesser extent Cape Town and eThekwini. The Gauteng metros were experiencing rapid in-migration and will have a higher HIV prevalence due to the age structure of their population and there being a higher proportion of migrants.

7.4 Conclusion

Despite increasing access to ART, AIDS-related deaths continue at scale. The rate of population increase is rapidly slowing. In the case of Johannesburg, the city's population is expected to decline or, at least, to stop growing. This means that within a few years any ongoing increase in demand for housing and services connections will come from the decline in household size, and stop when that decline stops.

The need for housing and services specifically for home-based care purposes appears to be peaking at present. The number of people in Stages 4 and 6 is projected to be higher now than in the future. This is due to increasing access to ART and the fact that an every increasing proportion of persons whose CD4 level drops below 200 will recover due to ART.

These trends do not gainsay the fact that Johannesburg's housing and services backlogs and the population living in informal settlements represent a defining problem for Johannesburg. Further that addressing these backlogs represents an essential feature of HIV/AIDS prevention and care.

Nonetheless, the discussion in the next chapter concerning the role of housing and services in prevention and care clearly cannot be based solely on care for AIDS-sick. The cost of services for the city and its residents will increase while the number of persons who benefit in any given year will be few.

It is arguable that the foremost impacts of HIV/AIDS on household income, the demand for housing and services, and municipal management now occur after the death of the AIDS-sick individual(s). This turns the focus to household reconfiguration, including the needs of orphans.

8. THE ROLE OF HOUSING AND SERVICES IN PREVENTION AND CARE

The purpose of Chapter 8 is to demonstrate how housing and services can be used in a proactive manner for the prevention and care of HIV/AIDS and OIs.

8.1 The Role of Housing and Services in Prevention and Care

The first thesis underlying this chapter is that it is a mistake to look solely at the impact of HIV/AIDS on housing and services. OIs are integral to considering the impacts of HIV and AIDS. The second thesis is that it is possible to use housing and services to

- prevent HIV infection (marginal significance)
- prevent OIs (significant)
- lengthen the periods between HIV infection and the onset of "full-blown" AIDS and the onset of "full-blown" AIDS and death (probably significant)
- provide care (critical)
- reduce the disruptive influence of illness and death on household cohesion and development prospects (significant).

In effect, housing and services can serve more purposes than those generated by persons who are AIDS-sick.

8.2 Services

A lack of access to basic services such as electricity, potable water, refuse removal and proper sanitation are directly related to high prevalence rates of preventable diseases, such as diarrhoea, TB and other respiratory diseases.⁶¹

Services implications for HIV and AIDS prevention

Clean water and sanitation are relevant to the prevention of HIV infection. This is because:

... where sanitation is poor, clean water not readily accessible, the infant runs a higher risk of dying from infectious disease than from HIV transmitted by the mother during breastfeeding.⁶²

If clean water is unavailable then a mother infected with HIV might well choose to breastfeed.

⁶¹ Van Rensburg et al (2002, p. 15)

⁶² Wilson et al. (2002, p. 296)

Further, where poor services lead to OIs, the possible consequence is to shorten the period between HIV infection and the onset of full-blown AIDS and the onset of full-blown AIDS and death. OIs generally reduce the body's CD4 count and undermine the ability of the immune system to fight off HIV infection and, due to the reduced CD4 count, also other infections.⁶³

Reinforcing the point:

The hypothesis that concurrent immune stimulation accelerates HIV progression is difficult to prove definitively, since the various components that contribute to progression of disease and prognosis are difficult to distinguish. However, the clinical and laboratory evidence suggests that this is very likely. Indeed, bursts of increased replication associated with opportunistic infections and parasitic co-infections could be contributing to the HIV transmission rates observed in sub-Saharan Africa, since viral loads in plasma and genital secretions correlate with each other and with infectivity.⁶⁴

Services implications for the prevention of opportunistic infections

In the case of services, if the infected person and their households cannot wash easily and do not have access to hygienic sanitation, there is greater risk of diarrhoeal organisms and skin infections.⁶⁵

Inadequate water and sanitation lead to poor personal hygiene, which is an important source of OIs. The failure to remove rubbish and flies contaminating food is another source of OIs. Energy is needed to heat water for cooking food and for washing contaminated surfaces. OIs put the patient and other household members and other care givers at risk of infection. The need for these services to prevent OIs is taken to be self-evident.

Services implications for care

In a survey of people who were AIDS-sick and who needed help with various activities of daily living, it was found that 17% could not control their bladders and 16% could not control their bowels.⁶⁶ Thus:

Chronic diarrhoea was most frequently mentioned as the symptom that caused the most disturbances for the household. There was this obvious concern at the constant washing and cleaning that was required, especially in areas with poor access to water and sanitation.⁶⁷

⁶³ Natrass (2004)

⁶⁴ Wilson et al. (2002, pp. 36, 37)

⁶⁵ City of Johannesburg (2004)

⁶⁶ Steinberg et al. (2002, p. 46)

⁶⁷ Steinberg et al. (2002, p. 47)

Diarrhoea is caused by drinking water contaminated by sewage or eating food that has been in contact with contaminated water, flies or soiled hands. Domestic, personal and food hygiene are very important in preventing infection and the risk of infection is higher with inadequate access to plentiful, clean water sanitation and overcrowding.

In a survey of home-based care providers in Johannesburg, it was found that services commonly provided by home based care providers are.⁶⁸

- bathing the patient
- preparation of food
- ensuring that the patient takes his/her medicine
- advising the family on how to care for the sick family member 'educating for cross infection'
- cleaning the house
- washing clothes/laundry
- counselling
- assistance with obtaining grants (which was highlighted by the care givers as being particularly difficult).

The most common housing and services problems experienced by home based care providers are:

- lack of water/difficulty of obtaining water
- poor quality, absence or overcrowding of sanitation facilities
- need to use alternative heating sources, primus stove and then wood due to lack of electricity or discontinued services
- lack of ventilation.

In addition to being needed for prevention purposes, services are needed for washing and cleaning and are central to home-based care, for example, heating water for washing the patient, cooking, washing contaminated clothing and for cleaning contaminated surfaces; for the replacement of fluids; and for the disposal of waste, including medical waste and 'sharps' (for example, needles).

Services implications during and after the period of household reconfiguration

Household reconfiguration takes many forms, commonly including children and the elderly moving in with relatives while their parents/children are still ill, ill persons moving in with relatives, and persons moving in with relatives after the death of the main income earner (although often the death of the mother triggers household reconfiguration, whether or not she was the main income earner). The foremost implication here is likely to be the inability of many newly or further impoverished households to afford services.

⁶⁸ City of Johannesburg (2004, section 8.4)

The above findings illustrate the importance of housing and services in the prevention of OIs, the care of the ill and to ease the burden and help to consolidate households during a period of household reconfiguration. In a study undertaken by the City of Johannesburg, the question asked was whether the level of free basic services is sufficient to provide care over a protracted period for household members who are AIDS-sick.⁶⁹ The study led to the conclusion that free basic services are insufficient for this purpose. The same conclusion was reached by city officials during the period that this report was being prepared.⁷⁰

8.3 Housing

Shelter implications for the prevention of opportunistic infections

Poor quality shelter increases the risk of viral and bacterial respiratory infections, including pneumonia. The risk of TB is particularly threatening in overcrowded conditions. TB is especially important because 'HIV infection is strongest risk factor for the progression of latent [TB] to active TB. Conversely, TB is the most common life-threatening HIV-infection worldwide ...⁷¹

Shelter implications for care

Space and privacy are important for the dignity of the patient and to enable care giving.

Shelter implications during and after the period of household reconfiguration

The policy context during periods of household reconfiguration is that there are often unclear inheritance rights regarding who will inherit the property, especially as minors are presently unable to inherit property; and foster care and child support grants that enable the extended family and the community to assist child-headed households who remain in the "their" houses and to take in orphans and others who lose "their" houses.

The extent to which this is an issue is unknown. To repeat the point, the big gap in the ability of local governments to plan for housing and services is knowledge of the different forms of household reconfiguration and their extent. Generalisations usually refer to grandmothers taking in ill children and their children, child-headed households and orphans who are too young to care for themselves. Yet it is clear that many households continue as functioning units or recover and become financially sustainable.

⁶⁹ City of Johannesburg (2004, section 6.8)

⁷⁰ Kathy Eales, 3 May 2006

⁷¹ Wilson et al. (2002, p. 34)

Policy initiatives here are bedevilled by the absence of "best practice" that takes HIV/AIDS into account. International best practice for housing and services presumes:

In a context of tremendous urban growth, increasing poverty in urban areas and constrained public resources, the response contained in the Habitat Agenda (1996) was that (1) national governments should decentralise responsibility to regional and local governments (p. 18) as (2) it is these levels of government that should assume responsibility for managing, operating and maintaining infrastructure and services (p. 21), and (3) government should adopt an 'enabling approach' that 'supports people's efforts to develop their own housing and communities' (p. 17).⁷²

International best practice in the delivery of housing and services has it that if a household is provided with a serviced site and tenure, then the household will seek to upgrade their housing and be willing to pay for services. It seems clear that this is incorrect and that households may well have other priorities.⁷³ This is especially likely to be the case due to the impact of HIV/AIDS on household incomes. Of course, the policy is also premised on the assumption that the demand for housing and services is increasing. This may be incorrect. Rather than seeing increasing demand arising form a growing population, one might see a changing form of demand due to an increasing proportion being unable to invest in housing and pay for ongoing costs.

8.4 It Is Not Straightforward

It seems easy to conclude that households with persons needing care require ready access to above basic services levels, but these households are distributed spatially semi-randomly within the community and the location of the needy households changes as death ends the care cycle in one household and illness starts it in another. Then too there is higher prevalence in some areas than others, in slums in particular. Earlier discussion with the Gauteng Department of Housing and later discussion during the course of preparing the 2004 report with Johannesburg city officials led to the conclusion that one could not target assistance with building an additional room to allow a patient dignity and to provide enhanced care, and to increase services levels solely to households with persons living with HIV and AIDS. The City of Johannesburg has re-opened the discussion.⁷⁴ The reasons for the earlier conclusion and the issues that would have to be addressed concern targeting and equity concerns.

⁷² Tomlinson (2001, p. 651)

⁷³ Such policies 'fail to establish the fact that housing deficits are more pressing than unsatisfied needs for other of life's essentials including food, medical care, schooling and jobs.' (Burns and Ferguson, 1987, p. 285)

⁷⁴ Mentioned by Ms Kathy Eales at the meeting with Councillor Ros Greeff at a meeting on 25 April 2006.

Targeting

The first way is to increase free basic services levels for all households. This has the considerable advantage of obviating the need to target services. This possibility is often also viewed as inequitable because high-income households will be getting free services, but understanding that someone has to pay for free services, it soon becomes apparent that high-income households will pay more for consumption levels above those available for free and will in this way subsidise the services consumed by low-income households. Whether a city can go this route requires financial modelling of the balance of potential sources of subsidy – high-income household and economic activities – to low-income households.

The financial implications of this route are unclear. In the formal townships, services consumption levels may be above basic and the consumption may not be paid for. Alternatively, in many informal townships the services available do not make it possible to consume at above a basic level. Significant financial implications cannot be assumed.

The second way is to target free services to low-income households. Determining who the households and maintaining up-to-date records, as well as having flexible billing systems, is cumbersome, administratively demanding and can be very costly.

The third way is to provide free basic services to certain neighbourhoods, but this can be very inequitable. For example, were free services to be provided for free to Soweto, there are many high-income households in Soweto that would benefit unfairly.

The fourth way reverts to the focus on households caring for ill persons and seeks to target free services to these households. In 2003 the view was that in the case of services to households that have services connections, the suggestion that the records of clinics and home-based care providers could be used to identify households who, for the period that there is an ill person(s) in the house, should receive free services, was rejected as infeasible due to it being implausible that such a scheme could be effectively administered. In the case of services to households that lack services connections, it was not considered possible to provide a higher level of free services and then discontinue the higher services after the death of the AIDS-sick individual. Johannesburg officials were sceptical about their ability to "finesse" the supply of services in this manner. Note that it is management issues that are the concern and not the ability, for example, to place a water tank on a stand, to regularly refill the tank using a water tanker, and then to remove the tank after the AIDS-sick persons died.

Additional concerns that were raised in 2003 were that clinic and home-based care records would be incomplete, some households would avoid being identified in order to escape possible stigma, the system would be open to corruption, and beneficiary households might sell water in favour of other priorities such as food. The reasons

for reconsidering the option in 2006 centre on need and on the perception that many of the difficulties could be managed to an acceptable level, for example, reaching a "sufficiently high" proportion of households that are providing care.

Equity

Referring again to views expressed in 2003, in the case of housing the position adopted was that to provide a housing subsidy to allow the construction of an additional room(s) for care purposes would privilege the households concerned because in a few years the household would have an empty room available for occupation or for rental. The consequence would be to provide households, some of which may not have been eligible for a housing subsidy, with a long-term subsidy to address a problem that will last for a year or two.

In the case of services, It was questioned whether one can in good conscience serve a household with an AIDS-sick person and not another household with a patient who is experiencing a long-term illness for other reasons? Alternatively, can one serve a household with an AIDS-sick person and not a poverty stricken household next door where a grandmother has taken in family members and has a household size above that allowed for in the free basic services calculations?

Ultimately, one does not know the manner in which households are reconfiguring and the distribution of households between those where grandmothers are taking in family members, child-headed households, households taking in children through foster care programmes, households fragmenting with only individuals emerging, and so on.

8.5 Conclusion

Local governments have addressed the impacts of HIV/AIDS through social services. The delivery of housing and services is generally not thought of as a means of contributing to prevention and care. It is apparent that this is incorrect and it is apparent that local governments can and should use housing and services for prevention and care purposes. This point is easily asserted and less easily implemented. While there are debates within Johannesburg, where there is the ability to subsidise services and to extend service delivery ultimately to all households, the same debates are probably fatuous in many other African cities that lack similar resources.
9. THE HIV/AIDS HOUSING AND SERVICES "MARKET"

The purpose Chapter 9 is to make the obvious points that having household members who are AIDS-sick and having pay for traditional funerals can profoundly compromise a household's income; to describe how the burden falls unevenly on women, children and the elderly and on persons in certain areas of the city; and to suggest that the delivery of housing and services needs to be targeted accordingly.

9.1 Declining Household Incomes

It is when a person proceeds through WHO Stage 3 and is AIDS-sick during Stage 4 that his/her productivity becomes impaired. A model for what this means for household incomes is as follows.⁷⁵ The ill person shifts from directly productive activities into service-oriented jobs, as this allows the person to work at jobs that require less physical effort. But these jobs are lower-paid and, as the illness progresses, the person works less, all the while dragging down household incomes. Increasing illness also leads to other household members reducing incomegenerating jobs in order to provide care. This is often coupled with long-term disinvestment in the household's income generating capacity as a result of the sale of assets and drawing children out of school.

At the same time as household incomes decrease, costs increase, especially in respect of medicines, transport and time. Inevitably the changing balance between incomes and costs leads to a re-alignment of household expenditure priorities. The largest increase is for medicines for the ill member(s) of the family. The cost of medicines declines at the last stages of the illness. The shrinkage and reallocation of household incomes reduces food security and increases malnutrition and illness within the family, especially among children. The decrease in expenditure on other household members increases their susceptibility to HIV.

Households at this point will often seek assistance from other families and from the community. Assistance of this sort enables household consumption levels to exceed household incomes. Unfortunately the Nelson Mandela Children's Fund suggests that extended family traditions appear to be caving in under the weight of:

- numbers of AIDS orphans.
- the gradual erosion of the values that sustained it
- urbanization and the increasing primacy of the nuclear family
- unemployment
- financial hardships
- abject poverty.⁷⁶

⁷⁵ Much of this material paraphrases Gow and Desmond (2002)

⁷⁶ Nelson Mandela Children's Fund (2001, slide 37)

For example:

The 'community' is involved in helping households affected by AIDS in a variety of ways. In Dihlabeng many informants spoke about the culture of giving/sharing in this community. "I really see these people sharing, that's the main coping strategy. If you have one loaf of bread you share. Jobs are scarce so people have to share". In Mbombela, a group of children from a child headed household are often seen going around the neighbourhood with a container asking neighbours for paraffin to cook food. In the same area, we heard about neighbours taking turns to buy mielie meal each month for a child-headed household. However it is recognised that this willingness to help may dry up – in Tshwane it was noted that "when days are dark, friends are few."⁷⁷

Death concludes the medical expenses, but results in an expense that is even greater than the expenditure on medication, the funeral. Large funerals with many people and much food, and high priced coffins, 'can drive families into debt and financial devastation'.⁷⁸ These expenses can proceed over a year, according to custom. It was reported in one survey that overall households are spending four times monthly household income in funerals⁷⁹ and in another that they are spending 3.7 times monthly household income and 5.7 times monthly household expenditure.⁸⁰

Under all these circumstances, and of particular interest to local governments, is that the allocation of household expenditure is expected to turn away from housing and services. The issue for municipalities does not reside in the really poor, who were already not paying for services, or in households that remain financially viable, but in households that are crashed into poverty and cease paying for housing and services.

9.2 But what about social grants?

The presumption underlying the previous paragraphs is that it is most often the case that the person who dies was an adult and an income earner. In a circumstance of high unemployment this need not be the case. Indeed, in a context of high unemployment and pervasive dependence on social grants, the income earner may be a child (child support and foster care grants), disabled (disability grant) or the elderly (pension). It is even possible that the death of a young adult who was previously unemployed and who has consumed family income for medical costs may, after taking funeral costs into account, improve the family's material circumstances. Due to the lack of empirical data, the value of these cautions is uncertain.

The government policy that makes the greatest contribution to the mitigation of the impacts of HIV/AIDS is the availability of social grants. These were not designed

⁷⁷ C A S E (2002)

⁷⁸ Foster, (1996); cited in Gow and Desmond (2002, p. 114)

⁷⁹ Steinberg et al. (2002)

⁸⁰ Booysen at al's (2002)

with HIV/AIDS in mind. Indeed, they were inherited from the apartheid government and notions such as there being limited unemployment and one needing a pension from the age of 60. Nonetheless, these grants play a fundamental role in combating poverty.

The grants and their value have been dawn from the Department of Social Development website⁸¹ and are shown in Table 14. The scale of the grants and their contribution is shown by the fact that between 1994 and 2004 the number of beneficiaries increased from 2.6 million to 6.8 million and the value of grants allocated (excluding inflation) increased from R10 billion to R34.8 billion. For many households and individuals, the means of coping is one or more of these social grants.

Table 14. Social grants

Grant Type	Value of grant
Old Age Grant	R740
Disability Grant, which includes someone with full blown AIDS	R740
Foster Child Grant	R530
Care Dependency Grant*	R740
Child Support Grant	R180

* The care dependency grant is the same as the disability grant except that it is intended for children and the grant is given to the care-giver.

Social grants for the elderly influence the form taken by household reconfiguration.

With rising rates of unemployment, pension sharing with an elderly relative has become a reason for adult children to join their elderly parents' households and share the elderly pensions ... Nearly 80% of age-qualified Africans reported receiving a social pension in 1996 ... Similar to the effects of HIV/AIDS which may draw adult children back to their elderly parents' homes, ...⁸²

Added to social grants are the housing subsidy and the widespread tolerance of nonpayment for services. These represent grants that further enhance household incomes.

9.3 Household Reconfiguration

Household reconfiguration has been frequently mentioned. This is because the number of AIDS-related deaths is climbing so rapidly and it is expected that the greatest poverty and housing and services impacts occur during a period of household reconfiguration. It is also because there is so little clarity regarding the

⁸¹ <u>http://www.welfare.gov.za/</u>

⁸² Merli and Palloni (2004, pp. 15, 16)

forms of household reconfiguration and what this means for the increase or decline in housing and services and the forms of housing and services needed.

Figure 9 attempts to portray some of the possibilities. It shows the decline of household incomes with the onset of illness. Infants too young to provide care may join family elsewhere in order to lighten the care giving load. Some households may remain financially viable. Some households may successfully reconstitute. Orphans taken in by CSOs will see their material needs met. Other households may increase in size when grandparents take in children, but live in poverty. Child-headed households may live a devastated existence. There will be many other variations.

Figure 9. Examples of forms of household reconfiguration⁸³



The central issue has to do with the balance between the number of households that remain sustainable after an AIDS death; the number of households that are successfully reconfigured; the number of households that fail to "cope", and the number of households that fragment, leaving behind orphans, elderly who struggle to care for family members, members of the extended family who struggle to provide assistance of some sort, and so on. This leads to a focus on orphans (including child-headed households), the elderly and women.

⁸³ Diagram developed for teaching in 2003 and first published in the City of Johannesburg (2004).

As summarised by South Africa's Department of Social Development:

AIDS transfers individual and familial survival onto a less resourced and often socially disadvantaged core of people. The burden of care is pushed upwards, particularly onto grandmothers; outwards, particularly onto adult female kin; and downwards, to children themselves. Few are sufficiently well resourced to take this on.⁸⁴

Data on, and projections of, household reconfiguration and the forms it is taking are central to a local governments being able to plan for housing and services. The particular need is for information pertaining to women, children and the elderly. In repetition, data regarding household reconfiguration and associated needs is critical and is lacking. This report has assumed that the major HIV/AIDS poverty problem is now located among the rapidly growing numbers of those left behind after the death of the income-earning individual.

9.4 **Orphans and Child-Headed Households**

The definition of orphans and child-headed households differs, depending on the source. The most common definition refers to children under the age of 15 whose mother and father have died. This is problematical for three reasons. First, more often not the death of the mother alone leads to the disintegration of families and the effective creation of an orphan. This is explicit in the ASSA models projecting maternal orphans. Second, it is typically the mother who sees to the health and wellbeing of the children. Third, children under the age of 15 still need parenting.

Looking back to Table 9 and the orphan projections for South Africa, Gauteng and Johannesburg, the number of maternal orphans is increasing rapidly, the proportion of the orphans that are AIDS-orphans has become so large that it males little sense to distinguish between AIDS and non-AIDS orphans, and the orphan population is aging, with an increasing proportion of orphans becoming older teenagers.

A survey by the Gauteng Intersectoral AIDS Unit⁸⁵ reports that 80% of the families said that they were willing to care for a relative with AIDS. Thus despite the popularity of foster care programmes, the number of children being cared for via the programmes is quite small.⁸⁶ The Nelson Mandela Children's Fund worries that it is unclear that this willingness to take in dependents will be sustained.

... despite the deep-rooted nature of extended family networks, the capacity of communities and households to cope has been undermined by the growing number of AIDS orphans. ... 72 per cent of households caring for children in distress experienced financial hardships as a consequence of hosting a child

⁸⁴ Department of Social Development (2003, p. 14)

⁸⁵ Gauteng AIDS Programme (2002/3, p. 31)

⁸⁶ Dr Helen Meintjes, e-mail communication

in distress. Extended family structures cannot, therefore, be assumed to remain resilient in the face of overwhelming orphan numbers, shrinking numbers of potential caregivers and over-stretched financial and other resources. Additionally, the stigma of AIDS will certainly influence the response towards many affected children. Thus, many children are or will be left outside the traditional social safety net.⁸⁷

There are no reliable data regarding child-headed households. The Nelson Mandela Children's Fund reported that in 2001 the numbers are still limited. The number of child-headed households is linked to the ability of the extended family and community to take in the children. Adding to the uncertainty is the fact that many of the persons, notably the grandmothers, are old and when they die some of the children they took in will still be children.⁸⁸ The extent to which this will be the case is unknown.

Finally, what of orphans who themselves are infected with HIV? The presumption underlying housing policy in South Africa is that government institutional orphanages are the least desirable form of providing care to orphans. Instead, foster care programmes are preferred, followed by care provided by CSOs. This is no doubt a correct policy, but does it apply equally to HIV positive orphans?

As the burden imposed by AIDS gets ever greater for households, it is likely that more children will be abandoned as extended families reach a point at which they can no longer support the children. But consider for a moment which children are likely to be abandoned first: the HIV-positive children or the HIV-negative? Given that the burden of care is much greater for HIV-positive children, and given that 'investing' in HIV-positive is unlikely ever to yield a return in terms of future earnings, it stands to reason that that the HIV-positive children are likely to be abandoned first. There is a] growing number of abandoned HIV-positive children in state-funded and private-funded hospices and shelters ...

... paediatric wards are flooded with HIV-positive children ...⁸⁹

The implication is that shelter provided to HIV positive orphans will more than proportionately be provided by CSOs and indirectly via the public sector, for example, in paediatric wards. It appears that local governments that seek to assist HIV positive orphans will have to focus their efforts on CSOs.

⁸⁷ Nelson Mandela Children's Fund (2001, slide 13)

⁸⁸ This point was brought to my attention by Susan le Roux of the Multisectoral Aids Unit of the Gauteng Provincial Government.

⁸⁹ Natrass (2004, p. 80)

9.5 Elderly

In Zimbabwe, AIDS has been labelled "the grandmothers' disease" because, ... it is the elderly who bear the burden of caring for the sick and the survivors. This is care they perform with great difficulty due to their own limited wealth, education, capital and work opportunities. Not only are these grandmothers caring for orphaned children, they are also deprived of their own financial security by the loss of their own children – the parents of the orphans now in their care – to AIDS. Without social and economic support in countries that provide little or no social security to the elderly, these grandparents invariably become destitute. The consequences for future growth are devastating with orphans entrenched in a cycle of poverty and limited potential for escape.⁹⁰

Projections for dependency in the case of the elderly are shown in Table 15. The projections are not based on the ASSA models and should be treated as illustrative.

The projections are for South Africa and reflect the percent of persons aged 60, 65 and 70 who will have an adult child who is HIV positive or has died from an AIDS-related illness. Note that there is no distinction between HIV stages. The Table points to a sharp increase in the aged who have infected offspring or offspring who have died from AIDS-related illnesses. The suggestion is that in 2010 48% of all 60-year old parents will be affected in this manner. Even allowing for the fact that the projections should be viewed as illustrative, it is apparent that very many among the aged will be impoverished as a result of the death of off-spring and as a result of having to provide for grandchildren and other relatives. Perhaps, in addition to looking to CSOs to provide care for orphans, one should anticipate that CSOs will need to play a greater role in caring for the aged.

Age	Infected	Dead
2005		
60	15%	2%
65	12%	1.3%
70	8%	1%
2010		
60	28%	20%
65	20%	15%
70	13%	10%

Table 15. Percent of elderly age 60, 65 and 70 who will have an adult child infected with HIV or that has died due to AIDS⁹¹

⁹⁰ Van Niekerk et al. (2001, p. 14)

⁹¹ Based on Merli and Palloni (2004, Table 3, p. 54)

9.6 Women

... overwhelmingly the individual response to care is driven and borne by women – the people who are most adversely directly and indirectly affected by the AIDS epidemic.⁹²

Thirty eight percent of households in Johannesburg are headed by women, with the number being slightly above 40% for African and coloured women. The proportion will be higher in households where orphans have been taken in. In the Free State, 'approximately 70% of the households looking after orphans are headed by women',⁹³ although obviously it cannot be assumed that the statistic is the same in Johannesburg.

The gender dimension to providing care is that it will most often be girls and not boys who are removed from school in order to provide care and whose future earnings will therefore diminish, women who will most often serve as care providers, women who will provide shelter for persons who are not immediate family members, women who are caused to reduce productive activities to provide care, and women-headed households that have lower incomes. Often these women will be elderly.

Local government policies that enhance access to shelter and services and reduce the cost of both more than proportionately serve the needs of women, women caring for the ill and the elderly who are providing care, who most often are women. Programmes to mitigate the impacts of HIV and AIDS on housing and services are gendered programmes.

9.7 Location and Housing and Services Characteristics

In addition to characteristics pertaining to gender, children and the elderly, there is the point that access to housing and services are unevenly distributed throughout a city. This is most evident in differences between urban formal areas and slums, but is also apparent in run-down high density parts of the city and other areas where service delivery has broken down. These differences were revealed during the preparation of 2004 report for the City of Johannesburg. Focus group studies were conducted with home-based care providers in five low-income parts of the city that have different housing and services characteristics. Unsurprisingly, it was found that there are locational differences in the ability of home-based care providers to provide care. It is interesting to reflect on the types of areas and the services difficulties that were encountered.

⁹² Department of Social Development (2003, p. 15)

⁹³ Bray (2003, p. 34)

Old apartments, often abandoned by owners and invaded by occupants

- Extremely crowded
- Water and sanitation facilities are usually not working (water may be obtained from the street)
- Poor lighting, often with paraffin lamps
- Lack ventilation
- Rubbish everywhere, including stairs and public places
- Personal safety of home-based care provider an issue

Old formal township with services connections, with many houses having backyard shacks

- Backyard shacks are often used to provide privacy, but also to hide persons with AIDS due to stigma
- Maintenance of services may be an issue with electricity and water being cut off, mostly due to breakages in service, and toilets that are blocked
- Payment for services is an issue with electricity and water being cut off
- Interruptions in the supply of electricity and water have major impact on ability to provide care
- Sharing of toilets, due to overcrowding and backyard shack
- Filth, with rubbish being thrown into the veld

Slum with inadequate services

- People live in small shacks
- Difficult access to services e.g. community tap and queues, e.g. use bucket and then bush for disposal
- Absence of services is so major a problem that few other issues were mentioned

Part old formal township with services connections housing and part informal housing

- Availability of services depends on location
- In formal housing area, backyard shacks are constructed to reduce overcrowding, but they themselves become crowded with extended family
- In informal housing area, houses lack ventilation, few taps are shared among many, external and overcrowded toilets that are unsafe at night, trash everywhere

New subsidised housing area with services connections

- Houses need more rooms
- Backyard shacks are constructed to reduce overcrowding, but they themselves become crowded with extended family
- Unable to afford services beyond free basic services, leading to cut offs and illegal electricity connections

A concern with overcrowding and filth is common to all areas, albeit that the extent of both varies among the areas. Poor ventilation is mentioned repeatedly. The lack of ready access to water and sanitation and electricity is considered to be a major obstacle to providing care. Where services are available, they are often in a poor state of repair and may not work. Services may also have been cut-off due to the

failure to pay for the services. Electricity is needed not just for cooking and washing purposes, but also for lighting with concerns for the safety of the home-based care providers and also persons who use outdoor facilities at night. Backyard shacks are used to remedy overcrowding, to provide dignity for patients and to enable care, but also to hide the ill due to the stigma associated with HIV/AIDS.

9.8 Conclusion

HIV/AIDS changes the housing and services "market". This is a result of declining household incomes and changing expenditure priorities, to the detriment of housing and services, forms of housing needed for care purposes, and anticipated diverse forms of household reconfiguration. Will the role of women as head of households and as foster parents also change the features of the product needed?

PART 5. LOCAL GOVERNMENT STRATEGIES

10. CHANGES ARISING FROM HIV AND AIDS

The purpose of Chapter 10 is to summarise the four strategies that can form part of local government efforts to mitigate the impacts of HIV/AIDS on housing and services. The strategies are changes in capital investment and operating expenditure that arise from declining rate of increase in population and household formation; using housing and services as a vehicle for the prevention of HIV and OIs and care of the ill; targeting housing and services to poorly serviced areas and those whose circumstances are especially worsened as a result of HIV/AIDS, women in particular; and safeguarding the capacity of local government to deliver housing and services.

10.1 Projections and Local Government Capital and Operating Budgets

Taking into account existing housing and services backlogs, the issue concerns how local governments deal with changes arising from HIV/AIDS in housing and services needs and resultant capital investment and operating expenditure. These changes essentially arise from the declining rate of increase, and even possible decline, in population and the number of households. The changes can be presented diagrammatically, as in Figure 10.

Operating costs will increase if the levels of free basic services are increased. Clearly this increase will only occur in circumstances where services costs were serving as a break to the consumption of the services. In the event that services are being consumed above the free basic services level and not being paid for, or if the difficulty of collecting, say, water from a community standpipe, prevents consumption levels exceeding or even reaching the free basic services levels, then the cost of increasing free basic services levels is not particularly meaningful. The point is that the operating costs of increasing free basic services levels may not be as significant as might initially be supposed. The actual outcome will vary depending on local circumstances and the consultant is unaware of comparative, empirical material in this area.



Figure 10. Anticipated changes for housing and services

It is striking that the longer term implications of changes arising from HIV/AIDS for local government capital and operating budgets *in respect of housing and services* are not expected to be severe. Quite the contrary, a declining rate of increase, and indeed a possible a decline, in population and the number of households reduces the burden on capital and operating budgets *for the delivery of housing and services*.

In summary, what this section does is present scenarios to local governments, which must then be followed up by local governments doing their calculations based on existing backlogs, population and household projections, the cost of extending services connections to household with inadequate services, and the cost of making services to a certain level available for free. These calculations / estimates / projections should thereafter inform their planning for housing and services, both in terms of needed housing and services and of anticipated capital outlays and municipal revenue requirements.

10.2 Housing and Services and Prevention and Care

Services

It has been argued that the services levels needed for prevention and care purposes exceed the free basic services levels. Four issues arise.

First, is this a meaningful issue in a context of often far-reaching services backlogs? For example, too often among African cities more than 50% of the households lack serviced stands. In this context, one might with good reason argue that the issue of increasing services levels is not all that relevant. But Johannesburg is different. The housing and services backlogs are smaller and the rate of increase in backlogs is rapidly slowing. The City of Johannesburg has set a target of 2010 for doing away with services backlogs and is looking to increase free basic services levels.

The second issue is that if it is possible to envisage doing away with housing and services backlogs, can free basic services levels be temporarily increased for households that have members in WHO Stages 3 and 4, and then discontinued after the death of the AIDS-sick individual(s)? It has already been observed that in 2003, during the course of preparing a report on housing and services and HIV/AIDS for Johannesburg, the possibility of being able to target free services to such households was rejected due to the difficulty of administering such a scheme. The possibility of such a scheme has been resurrected within Johannesburg. If effective, it is possible to prevent to prevent services cut-offs due to non-payment by households identified by home-based care providers as needy.

However, what is one to make of the services needs in slums where a free basic service level is unavailable, if only because of the difficulty of collecting water from community standpipes? In addition, in the 2003 study it was observed that coverage by home-based care providers is much less adequate in such settlements and also that the population is more mobile and difficult to keep track of. There do appear to be technical and administrative constraints, which take different forms in different parts of the city.

The question has also to be raised regarding equity and whether it is advisable to treat HIV/AIDS in such a special way. Can one increase free services levels to households with members in WHO Stages 3 and 4 and not to the neighbouring grandmother caring for a number of children? Is it desirable to discriminate "in favour of" HIV/AIDS, as opposed to other long-term illnesses that diminish household income and require ongoing care? Should one not anticipate that this will worsen stigma associated with HIV/AIDS? And so on. It can be argued that HIV/AIDS does not create special needs so much as dramatically increase the number of those with needs.

The third issue arises from administrative and technical difficulties and equity arguments. Rather than seek to target households who, for a year or two, need

higher services levels, why not increase the services levels available for free to all households?

The obvious concern about this has to do with the cost of doing so. This might especially be the case in a context of declining household incomes due to AIDS-related illnesses and increasing expenditures that can be expected to lead to a reallocation of household expenditure away from payment for housing and services. Yet, as noted, this only has implications in the case of households that were making payments and are now no longer able to do so. This is in contrast to households that remain financially viable and continue to pay for housing and services and others that were not paying for housing and/or services prior to HIV infection. The likely scale of this phenomenon is unknown, as are the implications for the financial sustainability of local governments.

A working estimate, presently being researched, is that the City of Johannesburg can sustain a free basic services level of 10 kl per household per month.⁹⁴ Undoubtedly this is a desirable outcome and a means of serving a variety of health-related and other needs in addition to those generated by HIV/AIDS.

The fourth issue is that if a decision is made to provide services for free to above basic services levels and to move, for example, from a community standpipe to a tap on the stand or from a ventilated improved pit latrine to water-borne sanitation,⁹⁵ then many households will need investment in services infrastructure. There presently is no subsidy funding from central government for this purpose as services connections form part of the housing subsidy. Services are provided when a house is delivered and there is no provision in the national housing subsidy for the installation of services infrastructure to existing houses and to households that do not qualify for a subsidy, but lack the necessary services infrastructure. If Johannesburg is to improve on free basic services levels, the presumption is that Johannesburg Water and City Power have the capacity to undertake such investments and that cross-subsidies within the water and electricity sectors can see to such investments. At the time this document was prepared Johannesburg Water was operating at a loss.

To this point the discussion has concerned services to households. CSOs that provide care for the ill and take in orphans can also expect to seek adequate services at reduced costs. It is understood that the City of Johannesburg already provides rates rebates to CSOs.

⁹⁴ Mentioned by Ms Kathy Eales at the meeting with Councillor Ros Greeff at a meeting on 25 April 2006.

⁹⁵ It has been argued that water-borne sanitation inevitably leads to an increase in water consumption levels above 10 kl per household per month.

Housing

Households caring for the AIDS-sick in overcrowded conditions suffer from an extraordinary affront to the dignity of the patient and stress for the care providers. Care providers and patients living in overcrowded conditions are also at considerable risk from OIs, TB in particular. TB is the most common life-threatening illness associated with AIDS. Extra space is often desperately needed. What can local governments do about this?

The housing subsidy in South Africa has gone to 'qualifying beneficiaries' and provided structures for *households*. There is no provision in the housing subsidy to provide an extra room or two for an individual member of a household. This need emerged after the formulation of housing policy between 1992 – 1994. When this issue was raised with the Gauteng Department of Housing (provincial housing departments administer the housing subsidies), it was pointed that the housing subsidy is intended to serve a long-term need and a subsidised extra room would only be needed for care purposes for a few years; and that thereafter it would represent free extra space for a household or a source of rental income and that this would be unfair to other households. Again one can raise the emotive issue of a grandmother next door caring for many children where girls and boys share bedrooms and where children share rooms with adults. Questions of equity bedevil attempts to treat household needs arising from AIDS as a special issue.

What is there that a local government can do here? In the first instance, local governments should not seek to prevent or slow the construction of additional rooms and backyard shacks in areas of the city where household incomes suggest that more formal responses to space needs are unviable. In the 2003 focus group studies with home-based care providers, it was reported that communities and the home-based care providers themselves found backyard shacks to be a reasonable solution, provided they were built to a certain standard. The greater issue raised was the availability of services.

Turning to care provided by CSOs, innovative forms of applying the housing subsidies to communities have been employed to enable, for example, CSOs to build rooms and facilities that enable them to provide care for orphans. This is a need government is eager to serve and the greater constraints is probably the availability of a sufficient number of CSOs.

10.3 Targeting

The potential contribution of housing and services to prevention and care and easing the burden of household reconfiguration will more than proportionately be located in certain areas of the city and among certain groups, women in particular. The delivery of housing and services should target the areas and those with particular needs. This task is easily conceptualised in the case of areas of the city. It is already apparent that there is higher HIV prevalence in slums and that household incomes are lower in slums. Overcoming backlogs, increasing services levels and targeting benefits coincide when improved services levels are provided for free to slums.

The task is less easily conceptualised when it comes to targeting women and children, for what might doing so consist of? *De facto*, requiring payment for services and cutting off services due to non-payment in the first instance disadvantages women due to women-headed households having lower household incomes. In addition, in their care-providing role, breaks in services supply and discontinuing services due to non-payment makes their task immeasurably more difficult. Needless to say this is all the more so in the case of grandmothers and children who are providing care. The measures already discussed concerning increasing services levels address the services cut-off issue.

Targeting women, children and the elderly and the ill in slums can also involve design features, for example a pump requiring less pressure to operate, and planning issues, for example community standpipes and ventilated improved pit latrines being closer to the dwelling and the areas around them being well lit. Design and planning specifications can help to address these issues.

10.4 Institutional Vulnerability

Illness, absenteeism and termination of employment threaten institutional capacity in two ways: the financial burden imposed on the municipal labour force and diminishing capacity and the ability actually to deliver housing and services. Local government HIV/AIDS strategies need to take into account not only the costs to the labour force and workplace wellness and the prevention of stigma, but also institutional vulnerability.

The cost to the local government labour force of HIV/AIDS that was estimated in the Buffalo City study suggested that the labour costs are minimal and not much of an issue. One awaits comparative local government studies before crediting such a conclusion.

One might anticipate that illness, absenteeism and termination of employment can be minimised by an effective workplace wellness programme, one which involves ART. For example, might one not expect that relatively wealthy local governments located in cities with considerable medical expertise and treatment facilities, Johannesburg for example, will be able to implement world class ART programmes and minimise the absenteeism and illness? When this view was put to Johannesburg officials the answer was that absenteeism and illness are foremost issues and that service delivery is being rendered more difficult due to HIV/AIDS.

If workplace wellness programmes are not as effective as might be hoped, they nonetheless remain a means of slowing and diminishing HIV/AIDS impacts on institutional vulnerability. In doing so, they also provide more time to identify key positions that are most vulnerable to threats arising from HIV/AIDS and to respond

with recruitment and training and succession planning. Guidelines in this respect are provided by the Department of Provincial and Local Government, South African Local Government and SACN 2005 publication – *Managing HIV and AIDS in the Municipal Workplace: A Guideline for Local Government* for dealing with institutional vulnerability. The document does not disaggregate what is required to sustain housing and service delivery. For example, when pointing to service delivery difficulties arising from HIV/AIDS, Pikitup was provided as a case study. A distinguishing feature of Pikitup's labour force is that a high proportion comprises unskilled labour.

Certainly, setting aside these South African examples, the first step is clearly prevention and ART. The second step is the identification of key positions where illness and absenteeism would threaten service delivery. It is the latter step that appears to be missing.

10.5 Conclusion

Four potential strategies have been put forward for how local governments can respond to the impacts of HIV and AIDS. These have to do with:

- changes in capital investment and operating expenditure that arise from the declining rate of increase in population and household formation;
- the potential for using housing and services as a vehicle for the prevention of HIV and OIs and care of the ill;
- the need to target targeting housing and services to poorly serviced areas and those whose circumstances are especially worsened as a result of HIV/AIDS, women in particular; and
- safeguarding the capacity of local government to deliver housing and services.

These are in large part technical strategies and the point has certainly been reached where it is appropriate remind policy makers that the form these strategies take, and indeed the potential for other strategies, needs to be explored with CSOs. It is especially apparent that women's groups and the elderly should have a say in the manner in which strategies are formulated and implemented.

The underlying shortcoming of all that has been written concerns uncertainty regarding the forms household reconfiguration is taking. It has been confidently asserted that, due to the increasing number of AIDS-related deaths and the availability of ART and the relatively small number of AIDS-sick individuals, the primary impacts of AIDS will be felt after the death of the AIDS-sick individual. This assertion needs to be evaluated on the basis of further research, both in the cities and in areas where extended family impacts are to be found.

Next one turns to the assertion that higher services levels are needed for the care of the AIDS-sick. What are these services levels? What if there are two AIDS-sick persons in the house? Can higher services levels be effectively targeted to affected

households? Should higher services levels be targeted to affected households? Here there is need for research into required services levels and considerable potential for policy debate.

Last, there is the concern with the sustainability of local governments and their ability to continue to deliver services and to deliver or to enable the delivery of houses and serviced stands. The prevention of HIV infection and the provision of ART are undoubtedly the foremost means of sustaining institutional capacity. However, there is considerable risk for the financial sustainability of local government when extending services at scale and providing services for free. As with household reconfiguration, here lies a second critical area of further research. Policy recommendations for individual cities should not proceed too far without modelling the financial implications of extending service delivery.

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ANNEXURE 1. COMPARATIVE HIV/AIDS PROJECTIONS FOR SOUTH AFRICA, GAUTENG AND JOHANNESBURG

Key Assumptions

From ASSA2002 to ASSA 2003

ASSA2002 and ASSA2003 models refer to models produced for the Actuarial Society of South Africa. The year numbers refer to the latest year for which antenatal data was available when the model was produced.

ASSA2002 was employed when preparing Dorrington et al's (2004) *The Demographic Impact of HIV/AIDS in South Africa: National Indicators for 2004.* The updated ASSA2003 Gauteng model was employed for the comparative HIV/AIDS prevalence and population projections for South Africa, Gauteng and Johannesburg. The assumptions and methodology underlying the two models are broadly comparable. The most critical difference between the two models concerns the 'median term to death', which has been lengthened based on South African evidence.

The differences in the assumptions are contained in the Table.

	2002	2003
Median term to death of HIV+ (14-24)	11.50	13.42
Median term to death of HIV+ (25-34)	10.50	12.40
Median term to death of HIV+ (35+)	9.00	10.84

There were also changes to the numbers perinatally infected and very small changes to the size of the risk groups. The result of extending the median term to death is that the population size is greater than projected in the National Indicators and that HIV prevalence slowly also becomes higher.

	ASSA2002		ASSA2003		
Year	Total population	% HIV+	Total population	% HIV+	
2000	43 966 756	8.5%	44 871 939	7.9%	
2005	46 156 343	11.1%	47 486 216	11.0%	
2010	47 380 126	11.4%	49 147 177	11.8%	
2015	48 294 565	11.2%	50 328 900	12.0%	

HIV prevalence and mortality

The most sensitive assumptions in respect of new HIV infections are the number of partners and consistency of condom usage. These dramatically affect expected future HIV prevalence. Increased condom use in a high prevalence environment makes little difference if the users of condoms do not use them in virtually every casual sexual encounter. In essence, 90% of people using condoms all of the time is far more effective than everyone using condoms 90% of the time. Treatment availability and usage, and the success of treatment in prolonging life most critically impact HIV mortality numbers.

Population size

The most sensitive assumption in respect of Johannesburg's population size in the short term is migration. The models assume that migration to the cities slows down over time. The modelling also takes into account decreasing fertility levels in most of South Africa, and in much of Southern Africa. Migration flows are known to change quickly and substantially - a sudden change in economic, political, or social factors could increase or decrease migration to Johannesburg, depending on the change.

Application of ASSA modelling to Johannesburg

Modelling for South Africa and for Gauteng is directly derived from outputs of the ASSA2003 models. Modelling for Johannesburg applies Gauteng HIV prevalences and other characteristics to the demographic profile of Johannesburg, by population group, sex and age. In essence, Johannesburg is treated as a sub-population of the Gauteng population, for modelling purposes. The modelling method assumes that any demographic group (e.g. white males aged 23) in Johannesburg is impacted by HIV to the same extent as its corresponding group in Gauteng. The demographic data on which the modelling of Johannesburg is based are taken from the 1996 and 2001 censuses.

The ASSA modelling exercise will be most accurate in respect of South Africa. As one scales down to smaller areas, confidence surrounding the projections diminishes somewhat. For example, there would be little value in projecting HIV prevalence for areas in Johannesburg. However, Johannesburg is large enough to allow a fair degree of confidence that the projections are indicative of circumstances that will prevail in the light of the assumptions.

Key Projections

Comparative population	sizes and gr	owth rates
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	Population			Growth (mid year to mid year)			
Year	Johannesburg	Gauteng	SA	Years	Johannesburg	Gauteng	SA
2000	3 100 495	8 509 554	44 871 939	2000 - 2001	3.2%	3.0%	1.4%
2005	3 436 045	9 398 354	47 486 216	2005 - 2006	1.0%	1.0%	0.8%
2010	3 549 233	9 722 312	49 147 177	2010 - 2011	0.3%	0.3%	0.6%
2015	3 569 507	9 781 056	50 328 900	2015 - 2016	-0.1%	-0.1%	0.4%
2020	3 548 955	9 687 299	51 196 613	2019 - 2020	-0.1%	-0.3%	0.3%

There is substantial uncertainty surrounding projections as far into the future as 2015. The given projections for Gauteng do however show small declines in population. These declines are a function of the assumption in the model that inward migration to Gauteng slows substantially, that fertility declines to below replacement in the province and that mortality remains elevated despite HIV treatment being available to many. HIV deaths by 2015 are mainly due to treatment failure and to a lesser extent to some lack of access to treatment. The projected population declines cannot be ascribed to any one of the factors, but are a combination of the impact of fertility, migration and mortality changes.

	South Africa	Gauteng	Johannesburg
Year	% HIV	% HIV	% HIV
2000	7.9%	10.2%	10.5%
2005	11.0%	14.4%	14.7%
2010	11.8%	14.8%	15.0%
2014*	12.0%	14.1%	14.3%
2015	12.0%	13.9%	14.1%
2020	11.9%	12.9%	13.1%

Comparative HIV prevalence

Gauteng and Johannesburg's populations peak in 2014.

								Non AIDS	AIDS	New	
Year	Population	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Death	Death	Infections	% HIV
2000	3 100 495	155 668	78 106	77 348	14 685			22,356	11,321	51,302	10.5%
2005	3 436 045	155 902	109 268	176 265	47 705	13,453	1,224	25,184	30,563	40,987	14.7%
2010	3 549 233	128 295	88 380	178 164	32 476	95,638	10,353	27,177	33,153	31,682	15.0%
2015	3 569 507	108 949	67 336	139 846	24 653	144,493	17,660	29,184	35,292	28,562	14.1%
2020	3 548 955	103 786	58 935	112 658	19 230	149,938	19,368	31,633	32,901	29,691	13.1%

Johannesburg: population size, distribution of the HIV-infected population according to stage, causes of death and new HIV infections in adults and adolescents (14+)

ANNEXURE 2. REVISED WHO CLINICAL STAGING OF HIV/AIDS FOR ADULTS AND ADOLESCENTS⁹⁶

Primary HIV infection

Asymptomatic Acute retroviral syndrome

Clinical stage 1

Asymptomatic Persistent generalized lymphadenopathy (PGL)

Clinical stage 2

Moderate unexplained weight loss (<10% of presumed or measured body weight) Recurrent respiratory tract infections (RTIs, sinusitis, bronchitis, otitis media, pharyngitis) Herpes zoster Angular cheilitis Recurrent oral ulcerations Papular pruritic eruptions Seborrhoeic dermatitis Fungal nail infections of fingers

Clinical stage 3

Conditions where a presumptive diagnosis can be made on the basis of clinical signs or simple investigations

Severe weight loss (>10% of presumed or measured body weight) Unexplained chronic diarrhoea for longer than one month Unexplained persistent fever (intermittent or constant for longer than one month) Oral candidiasis Oral hairy leukoplakia Pulmonary tuberculosis (TB) diagnosed in last two years Severe presumed bacterial infections (e.g. pneumonia, empyema, pyomyositis, bone or joint infection, meningitis, bacteraemia) Acute necrotizing ulcerative stomatitis, gingivitis or periodontitis **Conditions where confirmatory diagnostic testing is necessary** Unexplained anaemia (< 8 g/dl), and or neutropenia (<500/mm3) and or thrombocytopenia (<50 000/ mm3) for more than one month

Clinical stage 4

Conditions where a presumptive diagnosis can be made on the basis of clinical signs or simple investigations

HIV wasting syndrome

⁹⁶ The text is taken directly from the World Health Organisation (2005, pp. 5, 6, 8). The reference is to persons aged 15 years or more with positive HIV antibody test or other laboratory evidence of HIV infection. There is a different Table for youth and infants.

Pneumocystis pneumonia Recurrent severe or radiological bacterial pneumonia Chronic herpes simplex infection (orolabial, genital or anorectal of more than one month's duration) Oesophageal candidiasis Extrapulmonary TB Kaposi's sarcoma Central nervous system (CNS) toxoplasmosis HIV encephalopathy Conditions where confirmatory diagnostic testing is necessary: Extrapulmonary cryptococcosis including meningitis Disseminated non-tuberculous mycobacteria infection Progressive multifocal leukoencephalopathy (PML) Candida of trachea, bronchi or lungs Cryptosporidiosis Isosporiasis Visceral herpes simplex infection Cytomegalovirus (CMV) infection (retinitis or of an organ other than liver, spleen or lymph nodes) Any disseminated mycosis (e.g. histoplasmosis, coccidiomycosis, penicilliosis) Recurrent non-typhoidal salmonella septicaemia Lymphoma (cerebral or B cell non-Hodgkin) Invasive cervical carcinoma Visceral leishmaniasis

Clinical staging can be used effectively without access to CD4 or other laboratory testing. However, CD4 testing is useful for determining the degree of immunocompromise, and where CD4 facilities are available they should be used to support and reinforce clinical decision-making. Data on CD4 levels are not a prerequisite for starting ART and should only be used in conjunction with consideration of the clinical stage. The Table presents CD4 levels in relation to the severity of immunosuppression. For clinical purposes long term prognosis has been shown to be related to the nadir or lowest-ever value of CD4. It should be noted that the immunological staging of disease reverses with successful ART.

CD4 levels in relation to the severity of immunosuppression

Not significant immunosuppression	>500/mm3
Mild immunosuppression	350 – 499/mm3
Advanced immunosuppression	200 -349/mm3
Severe immunosuppression	<200/mm3

ANNEXURE 3. SOCIAL GRANTS FROM THE DEPARTMENT OF SOCIAL DEVELOPMENT

Abridged description of the grants drawn from the Department's website.

Qualifying requirements

Old age grant

The applicant:

- if a male, must be 65 years or older;
- if a female, must be 60 years or older;
- and spouse must comply with the means test;

Disability grant

The applicant:

- must be between 18 to 59 years of age if a female and 18 to 64 years of age if a male;
- must submit a medical / assessment report confirming disability;
- and spouse must meet the requirements of the means test;

Child grants

Foster child grants

- the applicant / child must be resident in South African at the time of application;
- 13 digit bar-coded ID document (applicant)
- court order indicating foster care status;
- must have valid RSA / non RSA 13 digit I D number in respect of each child;
- foster child must pass the means test;

Care dependency grants

- age of child must be from 1 to 18 years;
- must submit a medical / assessment report confirming disability;
- applicant, spouse and child must meet the requirements of the means test;
- note: the income of foster parent will not be taken into consideration

Child support grant

- applicant must be the primary care giver of the child/children concerned;
- the child/children must be under the age of 14 years;
- the applicant and spouse must meet the requirements of the means test;
- cannot apply for more than six non biological children

Grant in aid

- must require full-time attendance by another person owing to his/her physical or mental disabilities;
- must not be cared for in an institution that receives subsidy by the State for the care housing of such beneficiary;
- must be a social grant recipient

What is a means test?

The most important factor when a person applies for social assistance is his/her financial position. The reason for this is that grants are only awarded if the applicant's financial resources are below a certain level. In determining whether an applicant qualifies for a grant, and if so, to what amount he/she would be entitled, the income and assets of the applicant and spouse or the concerned foster child are assessed.