

Chapter 8: Health and HIV/AIDS

Introduction

This chapter looks at the provision of health services in Zambia, especially Primary Health Care (PHC), since the advent of HIV/AIDS and the International Monetary Fund (IMF) and World Bank sponsored Structural Adjustment Programmes (SAP). The chapter aims to identify inadequacies and shortcomings, such as inaccessibility of and lack of confidence in health centres, which lead to their being bypassed by patients in preference for hospitals. The impact of diseases on a community that can no longer afford to meet its basic health needs as well as the devastating impact of HIV/AIDS are examined as well.

Zambia has approximately 1,000 health centres and hospitals. Due to financial constraints and inadequate attention to preventive maintenance, the physical infrastructure and equipment have deteriorated to a stage where urgent repairs are required if the institutions are to function effectively. The equipment in most cases needs total replacement as it is either too dated or damaged beyond repair, and is inconsistent with health standards. In 1999, the World Bank and the African Development Bank pointed out this lack of preventive maintenance. They also noted the overloading of existing facilities and the dated and obsolete state of most equipment. This was compounded by the lack of technical assistance and skills to the Ministry of Works and Supplies artisans.

The state of the health system

Utilisation

In most areas patients would rather access health services at the hospital level, bypassing health centres, for a variety of reasons. This practice overloads the hospital with first contact cases and leaves the health centres with very few patients, and consequently under-utilised. It is not a cost effective utilisation of the limited health services and facilities as it is cheaper to treat patients at a lower level. Where patients are treated at lower levels, the treatment is more effective and efficient (Van Lerberghe and Lafort, 1990; Pepperall *et al.*, 1995). The health delivery system also suffers, as the hospital is not able to perform its role of providing referral services, technical support and support supervision to the health centres (MoH, 1992). Instead it becomes a large, inefficient and incompetent health centre (Van Lerberghe and Lafort, 1990). The inefficient use of health services is reflected in the under-utilisation of health centres and overloading of the hospital with first contact cases.

Accessibility

Inaccessibility of health services is generalised in Zambia. It can be physical, financial or functional.

Physical: The physical distances to the health facilities are a hindrance, mainly due to the inadequate numbers of health centres. This assumes new dimensions in the era of HIV when patients are chronically ill and need to access health services regularly. The attempt to address this through the Home Based Care system, though well intentioned, has not met the challenge due to inadequate logistical support. Home Based Care teams at most offer only emotional support, as they are not well supported, other than those that are privately supported.

Financial: The introduction of user fees brought in financial inaccessibility (Carlisle, 1997a). This decision was made centrally without the involvement of communities. A visit to health centre now costs between K1,500 and K3,000. The average hospital outpatient visit costs K15,000. This is about a tenth of a typical monthly income for most Zambians. It must also be borne in mind that the patient will in most cases walk away with a prescription to procure their own drugs as well as the transport costs.

This is a critical area, as most families cannot fend for their health needs due to the loss of the economically viable members and the depressed state of our economy. The introduction of user fees without a corresponding increase in quality actually reduces access (Mwabu *et al.*, 1995). However, this is contrasted by more recent work that has found that user fees per se are not such a hindrance in themselves, as most of the cost is due to travel expenses to get to the health centres, especially in the rural areas (Hjortsberg and Seshamani, 2001).

Functional – drugs and other medical consumables: There are shortages of drugs and other consumables due to erratic distribution methods and irrational prescribing habits. This trend has continued even with the new and restructured Medical Stores when at times a whole truck load delivers only contraceptive pills. This is compounded by inappropriate priorities, further undermining the confidence of the community in the health services. Drugs and other medical supplies are key areas in the provision of quality health services, but they remain in short supply in hospitals and health centres. Even basic drugs for treating opportunistic infections, especially anti-fungals, are a rarity. Patients who are in most cases hard core poor are expected to procure these. The anti-retroviral drugs are in acute shortage and unaffordable. At approximately US\$400 a month, only the rich, the politicians and government functionaries can afford them. Government has, however, entered into an agreement with its partners that will deliver the basic drugs.

Table 8.1 below shows the effect poverty and distance have on health seeking behaviour. Poor people tend not to consult health services, especially those that live far away from health institutions. This roughly equates to the rural and urban poor (Hjortsberg and Mwikisa, 2000). The extremely poor are equally split into three groups – a third consult health services, a third self medicate and another third do absolutely nothing about their health needs. Among the non-poor communities, who are mostly urbanites, almost half seek health services, about a third self medicate and only 17% do nothing.

Table 8.1: Health care-seeking in relation to poverty and access

	Consulted (%)	Self-medication (%)	None (%)
Poverty level			
Extremely poor	35.1	31.3	33.6
Moderately poor	41.7	34.9	23.3
Non poor	48.8	34.3	16.9
Distance to health facility			
<5 km	46.5	31.2	22.3
5–9 km	31.6	34.1	34.4
10–19 km	24.2	38.9	36.9
20–39 km	25.1	39.8	35.0
40–59 km	17.4	53.5	29.1
60+km	25.4	29.7	44.9
Total	40.8	32.8	26.5

Source: CSO, Living Conditions Monitoring Survey 1998, as quoted by Hjortsberg and Seshamani (2001).

Staffing patterns: To further compound the situation is the relative staff shortage in the peri-urban areas. This is due to staff preference for bigger centres. Low motivation of staff occasioned by inadequate conditions of service, low career advancement prospects and the shortages earlier mentioned, result in inappropriate staff attitudes that may make patients seek alternative services that are more user-friendly. These patients end up seeking traditional health remedies, while those who can afford it opt for private practitioners and neighbouring countries.

There has also been a steady but sustained brain drain into the neighbouring countries. This problem has lately been compounded by the mass exodus of paramedic and nursing staff due to the ill-conceived voluntary separation scheme from the civil service. These factors are borne out in inappropriate utilisation of health services with national figures that show hospital bed occupancy of 70% against 30% for health centres (Foster, 1996).

Financing

Ministry of Health (MoH) budgetary allocations accounted for 1.9% and 11.9% of the GDP and of the total national budget, respectively. These figures remained static in 1999 (for 1.9% and 13.9% of GDP and total national budget), while 2000 estimates stand at 1.9% of the GDP and increased to 14.1% of the national budget. The user fees that were introduced partly to generate local resources and enhance community partnership contribute a very negligible percentage in financing the health system, with the possible exception of Lusaka Urban District Health Management.

Almost half of the health sector support is from external sources through bilateral agreements, grants, loans etc. - (45% in 1998 and 49% in 1999) - with the remainder raised locally. The budget is rarely fully honoured, with certain District Health Management Teams (DHMTs) receiving less than 30% of their annual allocations. Staff salaries account for a relatively larger proportion of the health expenditure. In 1998, 39% of the emoluments budget was allocated to the national level, and 16% to the University Teaching Hospital and other third level hospitals. The provinces and the DHMTs accounted for 45% - inequitably disadvantaging the rural poor. This over-reliance on foreign aid leads to over-dependence and near total breakdown when the external aid is withheld, as happened in 1997 and 1998.

The health reform process

To tackle the problems outlined above, the health sector needed to be revamped and equipped with the needed capacity. The Zambian health reform process aimed to restructure the health delivery system by making it more responsive to local needs by bringing the decision-making process to the districts. This involved the establishment of District Health Management Boards (DHMBs) which would be sub-contracted by the Central Board of Health (CBoH). The CBoH itself would be contracted by the Ministry of Health to deliver health services in the country. The DHMBs would then employ District Health Management Teams, which would carry out health services. The system was based on the British National Health Service, and aimed to bring about, among other things, some private sector incentives and management styles through this managed market system (Cassels and Janovsky, 1996; Collins, 1994; Kasonde and Martin, 1994).

Among the thrusts of the health reforms were the decentralisation of decision-making, the introduction of user fees and the concept of “basket” funding, where all donors put their money into one basket (Hjortsberg and Seshamani, 2001). This novel aspect had only been tried before in Ghana. The reform process met with initial success as the drug situation, staff morale and quality of care improved.

As indicated above, the aim of the reform process was to decentralise decision-making to the local levels so that not all problems in the health sector were left to be dealt with centrally. The obvious problems that surfaced were the environment in which the DHMTs were to operate. They were supposed to partner with other government departments within the districts that were still centrally run. This made a multi-sectoral approach very difficult, as other departments had to either wait for Lusaka or the province to take decisions. This pattern of decentralisation was also very difficult to implement. The obvious choice was that DHMTs should be under local authorities, but this was not possible due to the lack of capacity and mismanagement of the local authorities. Also, the reporting relationships between the DHMTs and the local authorities were not very well defined and were a source of conflict.

To streamline operations, the reform process aimed at removing the provincial health office, which had played the role of “Big Brother”, looking over the DHMTs, with the Regional Health Office (reduced from 9 provincial to 4 regional offices), which was to provide technical support and supervision. This system was declared a failure and there was a reversal to provincial offices without being given enough time to be assessed. The health reform process was supposed to actually reduce the number of bureaucrats at the Ministry of Health headquarters in line with the downsizing of its activities to monitoring, regulatory and bilateral activities. The issues of health care delivery were supposed to be handled by the CBoH, whose staffing patterns would be decided by the aims and goals of the organisation. In essence, the Ministry of Health headquarters staff just moved buildings to the CBoH and the anticipated downsizing never occurred. As part of the reform process, all health workers were to be de-linked from the civil service to be employed by the respective health boards. This process was not well managed and created fear in the minds of the health workers about possible job losses. Staff morale went down and there were threats of strikes and actual sit-ins.

Another de-motivating factor was the issue of staff conditions of service. Initially, health workers were assured that part of the reform process was to ensure that the worker at the “front-line” had good conditions of service; the common health workers expected to have their conditions attended to first. The reality, however, was that only the conditions of the senior health workers in the CBoH and the Ministry of Health were attended to. Political changes and numerous policy changes derailed the reform process and currently there are more drug shortages, strikes by various cadres of staff and the situation may soon get out of hand if not arrested.

Specific Public Health Concerns

Table 8.2: Cases and disease-specific mortality, 1998-1999

Disease	Total cases	Total in-patient deaths
Malaria	879,364	2,367
Non-pneumonia RTI	276,432	222
Non-bloody diarrhoea	146,871	647
Eye infections	83,747	31
RTIs	78,153	898
Trauma	64,510	147
Skin infections	64,390	22
Other diagnosis	55,749	137
Ear/throat	41,751	5

Source: MoH, as quoted in MoFED, 2000, *Economic Report 1999*. Direct source: Hjortsberg and Seshamani (2001).

Malaria

Malaria is the leading cause of morbidity and mortality in Zambia, particularly affecting children under five years of age as well as pregnant women. Malaria accounts for approximately 30%-40% of outpatient clinic visits and 12% of hospital admissions. Of all admissions, children make up 52% in health centres and 44% in hospitals. Children also make up 67% of health centre malaria related mortality and 47% in hospitals, while national malaria incidence has almost trebled nationally in the last two decades. Malaria contributes an annual average of 21% and 20% of all health centre and hospital deaths. Of these, 26% of hospital admissions and 10% of all hospital deaths are in children under one year and 29% of admissions and 16% of all deaths are in children aged 1 to 14 years. Children under five account for 52% and 44% of reported health centre and hospital admissions, respectively, and for 67% and 47% of reported health centre and hospital deaths from malaria, respectively.

The malaria case fatality rate for severe and complicated malaria admitted to hospitals is 15%-20%. Malaria is followed, both in morbidity and mortality, by other equally preventable and treatable diseases as shown in Table 8.2 above. The current malaria interventions depend to a large extent on prevention through bed nets and appropriate treatment. The issues of environmental manipulation and the City and District Council's responsibilities, as outlined in the Public Health Act, and further emphasised in the National Health Services Act, are largely ignored, despite collecting personal levies and rates which should cater for these.

Nutrition

The World Bank funded assessment of poverty estimates that two-thirds of Zambia's population live below the poverty line, and 69% live in households in which basic needs are not being met, while almost half of the Zambian children are malnourished. Almost 75% of Zambians live in poverty, affording only a meal a day on a total daily expenditure of less than US\$1 equivalent.

The advent of HIV has seen a rise in malnutrition figures as a result of the reduced capacity of households to care for their needs due to the demise of bread-earners. This nutritional deficiency coupled with diseases like malaria in a poverty-stricken environment, results in very high childhood mortality rates. Nutrition assumes new importance in the era of HIV when the nutritional status of a person living with HIV/AIDS plays a crucial role in their wellbeing.

Diseases of childhood

Children under five still tend to bear the brunt of the disease burden, especially those in rural areas (C. Hjortsberg and V. Seshamani, 2001). Table 8.3 below shows the disproportionately large percentage of the disease burden borne by children. They account for well over 50% of the total malaria cases diagnosed and almost two-thirds of the malaria deaths. Similar trends were noted in respiratory infections, diarrhoeal diseases and other preventable illnesses.

Tuberculosis

Tuberculosis (TB) cases have increased nearly five-fold with the advent of HIV/AIDS. The TB rate in the country was 100 per 100,000 population in 1984, but this had increased to 500 per 100,000 population by 1996. Without AIDS, new TB cases in 1996 would have been about 8,000 to 12,000, and this would have risen to about 50,000 by the year 2005, with four out of every five cases being directly linked to AIDS. Prevention, control and treatment of TB are serious public health concerns. The health sector continues to experience regular and consistent shortages of TB drugs which are making it difficult to implement the DOTS system and putting additional burdens on already economically challenged patients who have to purchase their own drugs.

Table 8.3: Percentage of under-five children in diagnosed cases and in-patient deaths

Disease	% cases of under-5 children in total diagnosed cases	%deaths of under-5 children in total in-patient deaths
Malaria	62.9	71.5
Non-pneumonia RTI	63.8	60.4
Non-bloody diarrhoea	66.5	58.0
Eye infections	70.6	51.6
RTIs	72.4	77.2
Trauma	28.6	40.8
Skin infections	52.6	54.5
Other diagnosis	25.2	36.5
Ear/throat	55.8	40.0

Source: Hjortsberg and Seshamani (2001).

Maternal health

The maternal mortality rate in Zambia has been quoted variously, with figures ranging from 250 to 850 deaths per 100,000 women in the reproductive age group. Recently, the Minister for Health had this to say about the state of our reproductive health system:

“Zambia has one of the highest rates of maternal deaths in the world, Health Minister Enoch Kavindele has disclosed. Launching the White Ribbon Campaign for Safe Motherhood in Lusaka yesterday, Kavindele said 3,000 out of 325,000 pregnant women are likely to die from complications of pregnancy and childbirth everyday. Kavindele said pregnant women suffer more mortality from preventable conditions such as malaria and sexually transmitted diseases, including HIV/AIDS. He said such life loss was a great cost to the development of the country. Kavindele said although the government has taken action through the health sector reforms to address the problem, it was inadequate unless everyone played a key role in promoting safe motherhood in the household, in the community and at workplaces.

‘Let me take this opportunity to reinforce the message to men in this country that safe motherhood is not the responsibility of women alone but it is also their responsibility, including child rearing,’ he said. Kavindele said everyone in the country needed to recognise that every pregnancy faced a risk.”

(Health Minister Enoch Kavindele, 5th March 2001).

Water and sanitation

Local authorities have abdicated their water and sanitation responsibilities, leaving only NGOs and other foreign funded players in the field. A few local authorities make occasional token attempts towards the provision of water and sanitation, especially during state visits by foreign dignitaries. Access to safe drinking water is still a big problem for the poor people in Zambia, with the rural communities’ access to safe drinking water ranging between 25% and 35%. This is a contributing factor to the annual cycle of cholera epidemics and other related diseases.

This problem is compounded by unregulated settlements where such services are not provided, as the areas are not gazetted and, therefore, officially “do not exist”. This removes even the remote possibility of catering for them in future. Such a setting is ideal for cholera and other diarrhoeal diseases (which occur annually), respiratory tract infections, and diseases spread generally by unsanitary surroundings. These unplanned settlements exist in such a manner that even if fire and ambulance services had been available, it would not be possible to have access to most of the areas as the “roads” were not designed for such. Neither would it be possible to site services centrally, as most would have no space other than on the outskirts.

The advent of HIV/AIDS

The above unfavourable scenario obtained at a time that HIV/AIDS made its advent in Zambia to join the other woes of malaria, diseases of childhood and those related to motherhood. This quickly saw the re-emergence of tuberculosis, which medical science had been fighting with a large measure of success hitherto.

Prevalence

It is estimated that 19.7% of all Zambian adults in the economically viable age group (15-49 years) are infected with HIV, but most of them are unaware of their infection. The age group below 15 years is estimated to have 90,000 infected. The disease is spread across all provinces, but worst in the urban centres

of Lusaka, the Copperbelt and Livingstone. Some of these towns have very high prevalence rates: Livingstone (31.0%), Lusaka (29.6%), Kitwe (28.7%), Ndola (28.4%), Chingola (28.1%), Mufulira (26.9%), Luanshya (26.6%), Chililabombwe (25.8%) and Kabwe (25.6%). A number of factors have been advanced to explain this, among them are the presence of truck routes, migrant labourers, mining areas, border towns, towns along railway lines and centres of tourism (MoH, 2000). The peak ages of infection differ for the sexes, being 20-29 and 30-39 years for women and men, respectively. Women are more affected than men in a ratio of 1.4 females to 1 male. Young women in the age group 15-19 are five times as likely to be infected than males in the same age group. Women are prone to other effects of HIV as they take up almost all the care of the sick, have their property grabbed when they are widowed, and degenerate further into poverty.

The Ministry of Health and UNAIDS have noted and validated a decline in prevalence in the younger age groups in four Lusaka sites from 28% in 1993 to 15% in 1998, attributable to behaviour change. This is due to positive education about sexuality within the age group 5-14 years that needs to be emphasised to reinforce these children for positive behavioural change in their adult life (MoH, 1999). In the age group 5-14, the number of AIDS cases is very low, giving HIV/AIDS workers a “window of hope” to plan education programmes targeting this age group. There has been very strong and sustained opposition by the church and the state recently, to condom and sexuality adverts in the public media. There is need to develop clear and culturally sensitive, but effective messages. There is also need to recognise the importance of moral behaviour formation to be balanced with the realities of adolescent sex, requiring behaviour change and the need for condom use.

Modes of transmission

Hetero-sexual contact accounts for well over 95% of infections in Zambia. With regard to mother-to-child transmission, 30 to 40% of children born to infected mothers are infected at birth; others can contract HIV during breastfeeding. 30,000 such children are born annually and most will develop AIDS and die before their second birthday. Only a few live beyond five years. AIDS-specific child mortality increased from 8 per 1,000 live births in 1990 to 33 per 1,000 live births in 2000. The other methods are through contaminated blood and blood products, using contaminated instruments for penetrative medical or other use (e. g. *inembo* – scarification marks). Mosquito and other insect bites have been shown not to transmit HIV.

General impact

The advent of HIV has eroded the life expectancy at birth drastically from 56 years to 37, within a period of 20 years. It has also spawned an increase in tuberculosis cases by a factor of five. The other area of concern due mostly to HIV, poverty and the poor health system is the increase in the infant mortality rate from 90 per 1,000 live births in 1990, to 109 per 1,000 live births in 1996. Current estimates stand at about 150 per 1,000 live births. AIDS deaths are having a significant influence on the rate of growth of the population, slowing it to less than 2% per year. In the absence of AIDS, the population growth rate would have been 3% per annum. The fertility rate - the number of children per woman, has drastically fallen from 6.1 in the 1996 Demographic and Health Survey, to about 4 children per woman in 1999 (MoH, 2000). In the absence of AIDS the population would have grown to 12.1 million in 2004 and to 15.8 million in 2014. At that time, the population would still be growing at a rate of 2.4% per annum. With AIDS causing increasing deaths, the population growth will slow to 10.1 million in 2004 and to 12.0 million in the year 2014.

Specific impacts

The HIV/AIDS epidemic is threatening the socio-economic gains of the country, especially in the fields of health, education, agriculture, industry and human resource development.

Orphans and other vulnerable children

Children are particularly impacted since they are losing one or both parents from AIDS. At the end of 1999, the number of street kids stood at almost 1,000,000 with 600,000 being orphans as a result of AIDS. It is estimated that that number will rise to 900,000 by 2009 and 1,000,000 by 2014. Even those children whose parent(s) have not died yet but are incapacitated by HIV/AIDS are also very vulnerable. This has resulted in the mushrooming of child-headed households. This has other consequences in the agricultural, educational and gender sectors. The pressure of caring for these children and their very sick parents falls on poverty-stricken grandparents, impoverishing them further. These street children are abused physically and sexually and will most likely grow up to be abusers themselves. They become involved in petty crime and sex work early in life, thus feeding the epidemic that produced them.

Stigmatisation

Zambian people living with HIV/AIDS (PLWHA) are discriminated against. HIV/AIDS is associated with sexual impurity and irresponsibility. This results in a wall of silence and taboo around HIV so that people do not readily reveal their HIV status and others still do not want to know. The fact that there are no incentives for knowing your HIV status (e. g. access to drugs if found to be living with HIV, support systems, etc.) negatively re-enforces this reluctance for people to know their HIV status. Currently only about 6% of the Zambian population know their HIV status.

Effect on industry

Mortality and morbidity associated costs have risen in almost all companies, markedly affecting productivity, recruitment and loss of trained manpower. This is seen in the workforce structure changing to become younger, inexperienced and less well trained, with high numbers of skilled personnel dying. Chilanga Cement Company reports a three-fold increase in the number of hours lost to illness and funerals from 13,380 hours in 1992/93 to 43,370 hours in 1994/95. Indeni Petroleum saw the cost of medical care, terminal benefits and funeral grants more than doubling between 1991 and 1993 and exceeding profits by 1996.

Effect on agriculture

Due to loss of productive labour, there has been a reduction of land use under cultivation, in crop yield, in the range of crops per household, in the ability to control pests and other irritants, loss of agricultural knowledge and farm management skills, and a decline in livestock production. In some of the large-scale farms, it is estimated that 15% to 22% of the workforce are infected with HIV (refer to Chapter 5 for further details).

Effect on education

Teachers have a very high HIV/AIDS mortality rate resulting in mostly rural schools being under-staffed, depleted further by transfers to fill the vacant places in the urban areas. A recent study shows that even if teacher training colleges doubled their output, the shortages would not be stemmed in the short and medium-term. Estimates put the HIV mortality rate at 10% to 15 %. The Ministry of Education released figures for 2000 that state that 1,300 teachers died of AIDS (refer to Chapter 9 for further details).

Effect on the health sector

Health professionals (doctors and nurses) tend to have extremely high HIV/AIDS morbidity and mortality rates, further compounding the capacity to perform by a sector that is challenged by the sheer numbers of HIV related illnesses and the chronic shortages referred to above. Certain graduating classes of doctors have lost almost a third to half of their numbers to HIV. The prevalence rate for nurses averages 25%. The mortality rate among nurses in Monze and Choma districts increased thirteen-fold between 1980 and 1991.

Effect on the civil service

The government has not released figures on the impact of HIV/AIDS on the civil service, but telling anecdotal evidence abounds. Some sectors report increases in funeral disbursements, purchase of coffins, repatriation of spouses or children to areas of origin or choice, transportation for funerals and the sheer time that officers are away either tending to their sick, burying their dead or being sick themselves.

Effect on the political system

We continue to lose a large number of politicians at all levels to suspected HIV/AIDS. Most of our leaders perpetuate this culture of silence and never reveal their status, thus denying the fight against HIV the political leadership necessary to effectively combat it. These deaths account for the vast majority of the expensive bye-elections this country can ill afford. The infection and deaths of seasoned politicians not only lead to costly bye-elections, but also to very expensive visits to South African private health institutions, and replacement by less experienced people. These are bound to make very expensive mistakes as they learn how to function in their new roles. It would be very difficult to quantify such losses arising from incompetence occasioned by the deaths of skilled politicians.

Factors affecting the HIV/AIDS epidemic in Zambia

Prevalence of other STDs: STDs increase the probability of infecting others as well as to get infected if one engages in unprotected sex. This is more the case in those STDs that form ulcers and sores in the genitalia; but even those that lead to inflammation have been shown to facilitate the transfer of the virus. STD levels are high in Zambia, accounting for 10% of all outpatient visits. This does not take into account those that self-medicate, seek traditional remedies, consult private practitioners or just ignore the infection.

Multiple sex partners: Many Zambians have unprotected sexual relationships with persons other than their regular partners, as shown by the Zambia Sexual Behaviour Survey of 1998. This survey reported that 39%

of sexually active men and 17% of sexually active women had had sex with a non-regular partner within the previous 12 months.

Low use of condoms: Condom use in Zambia is generally low. The 1998 sexual behaviour survey referred to above indicated that only 33% and 24% of men and women, respectively, used a condom in their last sexual encounter with a non-regular partner. The Ndola commercial sex worker survey (part of a multi-site study) showed that only 25% of the sex workers used a condom with their last client and less than one out of seven used condoms with all clients.

Low levels of male circumcision: The Ndola commercial sex worker survey cited above found that only 7% of men had been circumcised. The rest of the country reported 14% of the men being circumcised.

Poverty and poor overall health: Fatalistic attitudes due to high rates of unemployment, poverty and poor health have been found to contribute to high-risk sexual behaviour and the spread of HIV/AIDS.

Low social and economic status of women: Women have a generally low educational level and this reduces their access to jobs, even when jobs are available. This reduces their capacity to earn a livelihood as well as negotiate for safe sex.

Urbanisation and mobility: Zambia is the most urbanised Sub-Saharan African country, with almost half the population living in urban areas along the line of rail. There is continuous movement into the urban areas in search of jobs. This cleavage from traditional society has resulted in social changes, leading to new sexual behaviours. This is aided by the ease of movement, which has exacerbated the rapid spread of the virus.

Early sexual activity: The Ndola commercial sex worker survey showed that 20% of females and males had initial sexual contact before attaining the age of 15 years. The 1998 sexual behaviour survey showed that girls and boys on average had sex first at the age of 16.3 years and 16.4 years, respectively.

Cultural practices: Practices like polygamy, dry sex, sexual cleansing of widows, and “wife inheritance” tend to contribute to the transmission of HIV. Polygamous unions are prone to spouses sleeping with other people outside the marriage union. This increases the likelihood of introducing HIV into the setting and infecting all people involved in such a marriage. During sexual cleansing, the surviving spouse has to have sex with a member of the late spouse’s family. It is believed that if this is not done, the surviving spouse will be harassed by the dead spouse’s spirits, and will go mad. In areas where it is still practised, sexual cleansing is done even when the other spouse died from clinical HIV disease. The 1998 sexual behaviour survey reported that 4% and 18% men of women respectively practised dry sex in their last encounter with a non-regular partner. This leads to ulceration in the genital tract, especially for the women, increasing their likelihood of contracting HIV.

Features of current HIV/AIDS programming responses

The current programming efforts attempt to reduce HIV/AIDS/STD transmission, socio-economic impact and mobilisation of local and external resources, through:

- Reducing HIV/STD transmission.
 - information, education and communication activities;
 - condom promotion and distribution;
 - life skills education for boys and girls from primary to tertiary educational levels;
 - work place programmes for HIV/AIDS with the public and private sectors.
- Reducing the socio-economic impact of HIV/AIDS on individuals and families.
 - institutionalising innovative workplace interventions;
 - setting up special programmes for orphans, widows and widowers;
 - support to PLWHA;
 - advocacy for the introduction of non-discriminatory practices and laws.
- Mobilising local and external resources to support the response.
 - integration of HIV/AIDS, STD, TB and leprosy services into one programme to ensure sharing of physical, financial and human resources;
 - plans to appoint HIV/AIDS focal point persons in each line government ministry;
 - district health boards contributing funds to implement HIV/AIDS activities.

The current HIV/AIDS programmes tend to be broadly split into two. Those targeting the general population, as recommended in all countries with prevalence rates above 5%, and those that target special high risk groups. The programmes address issues of positive living, prevention and control and mitigation of the effects of the disease. The mitigation seems to place too much emphasis on Home Based Care without corresponding support, thus shifting the burden of care onto already impoverished communities.

The introduction of Voluntary Counselling and Testing (VCT) has seen the opening of 22 centres for this purpose, but these are concentrated in urban areas with virtually no access in most of rural Zambia. The programmes are geared mostly towards women and the girl-child, while there are very few that target men who make most of the sexual decisions in this country. It is very difficult for men to make a difference when they are not specifically targeted.

All the above factors, in an environment of abject poverty, have resulted in a nightmare scenario such as Africa in general, and Zambia in particular, have not faced since the days of slavery. Therefore, the Ministry of Health lists the following public health priorities:

1. HIV/AIDS
2. Malaria
3. Tuberculosis
4. Reproductive health
5. Child health
6. Nutrition
7. Water and sanitation.

Identified gaps in the health sector

The following gaps have been identified for urgent redress:

- Inaccessibility to the health system for most of the rural and urban poor. This is due to limited numbers of health centres especially in rural areas. Most of the centres do not meet the Ministry of Health's minimum physical standards, thus being functionally inaccessible even when they are physically accessible. The introduction of user fees may further introduce financial inaccessibility, though most of the research shows that it is the actual cost of getting to the centre that is prohibitive.
- There are serious drug shortages, especially the drugs necessary to address the opportunistic infections like TB and oral thrush associated with HIV infection. The situation is worse for anti-retroviral drugs, which are necessary for the prevention of mother-to-child HIV transmission and for people living with AIDS, but remain the preserve of the rich.
- There is need to have appropriate HIV education for our "window of hope" that will balance morals, appropriate character formation, and condom use where necessary.
- HIV care depends to a large extent on Home Based Care, which under the current circumstances shifts the burden of care to already impoverished communities.
- There is need to revisit the reform process in order to institute appropriate management systems.
- There is over-reliance on external budgetary support such that when external donors withdraw their support important health interventions are derailed.
- There do not seem to be adequate staff retention policies such that a lot of the people trained by the Ministry of Health at public expense leave the public sector for greener pastures.
- The system still spends relatively more money in the urban areas as opposed to the rural communities, so that there is inequitable distribution of resources in favour of the more urban areas.
- The statutory health functions of local authorities have been largely ignored despite these authorities continuing to levy their residents. Unsanitary conditions abound in all Zambian towns and may play a major role in the resurgence of malaria in the country. The preventive roles of the local authorities should be re-enforced.
- HIV/AIDS programmatic efforts do not have adequate, if any, programmes specifically addressing men and motivating behaviour change.
- There do not seem to be incentives that promote the need for individuals to know their HIV status.
- There is a wall silence surrounding the free discussion of HIV matters. This is manifested by the lack of political leadership in the HIV field, as well as the almost total public media blackout of educational HIV news, other than that of the sensational variety.
- There are inadequate VCT services generally, with an almost total lack in the rural areas. Those that do exist do not offer much in the way of incentives as to the benefits of testing.

- The high numbers of the nutritionally challenged under-five population and people living with HIV/AIDS.
- Unacceptably large numbers of deaths from easily preventable causes, such as malaria, pregnancy related disease and TB.
- It is relatively more expensive to access health services in the rural areas as opposed to the urban areas.
- Under-5 children represent a disproportionately large number of deaths - almost 75% of the malaria deaths, while they represent only 4% of the population.

Recommendations

General recommendations

Government:

- The government should take responsibility for the health of the citizens of the Republic and realise that health is not a privilege, but a right.
- There should be a re-evaluation of government priorities in light of the current health realities – two ministerial GX Landcruisers can buy adequate Nevarapine for the prevention of mother-to-child HIV transmission for all the children born with HIV in the country annually.
- The President should take personal charge of the HIV/AIDS situation in the country, as Uganda's President Museveni has done, with tremendous results. This would spearhead the free discussion of matters pertaining to HIV/AIDS.
- Government should commit resources from debt forgiveness to the social sectors, including health.
- Government should re-introduce medical services based on taxation and do away with user fees in areas where they will be found to pose a financial barrier to access to health services. A mechanism of workplace based medical insurance should cater for those in gainful employment.
- Government should re-dedicate itself to the "ABC" of HIV/AIDS prevention (abstinence, mutual faithfulness and appropriate condom use) and introduce the "D" for drugs. Government has to start looking for ways of starting anti-retroviral drug use not only for the privileged few but also for the deserving poor.
- Government should re-commit itself to improving the conditions and supply of drugs in the government hospitals, instead of flying increasing numbers of political and government functionaries to South Africa at public expense.
- Government should set limits on which government and political leaders should benefit from public funded medical treatment outside the country.

- Government should dialogue with the traditional establishment (rulers, healers and other players) to find effective mechanisms of modifying certain cultural practices in the light of HIV/AIDS.

Ministry of Health/Central Board of Health:

- The Ministry of Health has to re-evaluate the way the health budget is spent and the following is proposed:
 - Ministry of Health headquarters - 5%
 - Central Board of Health - 10%
 - Urban health centres - 20%
 - Hospitals - 25%
 - Rural health centres - 40%.
- Health boards should be elected and not appointed. Chief Executives should be appointed by these respective boards and their contracts renewed depending, on meeting pre-set performance targets.
- MoH and CBoH should quickly implement Integrated Management of Children’s Diseases (IMCI) throughout the country to counter the effects of the high childhood mortality rates.
- Meaningful rural hardship allowances should be re-introduced to attract qualified personnel to the rural areas.
- The salary structures should be re-visited, such that the highest paid health workers need not necessarily be those based at the MoH and CBoH headquarters at Ndeke House.
- The ready availability of drugs should be ensured by using the local part of the budget over which we have total control, while letting other less important issues to be catered for by other resources.

Specific recommendations

Goal: to improve the general wellbeing of Zambians.

Purpose: to reduce mortality and morbidity of Zambians from largely preventable and curable conditions.

Strategies against the identified gaps

Health posts in rural areas, which would feed into the health centres, should be introduced. Formally setting up a referral system between the levels of health care increases accessibility and rationalises use of services, as it is based on stepwise progression of skills from health centre to hospital (WHO, 1997; Kleczkowski *et al.*, 1984). Government and its partners should set up VCT sites in rural areas, while the private sector should be encouraged with incentives (e. g. tax rebates) to set up workplace VCT sites, which may also cater for the urban unemployed in exchange for incentives.

Functional access will be enhanced by encouraging health staff to work in rural areas – for example, rural hardship allowances, linking career progression to rural service as well as educational opportunities. MTCT prevention drugs like Nevarapine should be immediately made available by reducing government extravagance. The issue of anti-retroviral drugs for people living with HIV/AIDS at public expense should not be limited to political and government leaders. There should be independent funding of semi-autonomous ambulance systems, initially in rural areas, to address the issues of access and referral.

The statutory requirements of local authorities should be enforced, so that agreed percentages of the revenue from rates and personal levies are spent on providing water and sanitation services and other cleansing exercises. There are appropriate sanctions that the CBoH/DHMTs can take as appropriate, spelt out in the National Health Services Act of 1995. The roles, *inter alia*, are providing sanitary surroundings; the Public Health Act adds the issues of housing, ventilation, and vermin and pest eradication.

Men making a difference: Deliberate workplace based programmes emphasising monogamy, faithfulness and condom use should be instituted in all places employing more than five men. Similar community based programmes should be spearheaded by DHMTs and their partners.

Breaking the silence: The President should take personal responsibility for breaking the silence around the free discussion of HIV/AIDS. All public figures should be duty bound to discuss AIDS every time they speak officially. The public owned media should have a quota system of HIV/AIDS educational news per copy.

There should be support for the formation of community based support groups that will promote and re-enforce positive family values, encourage VCT and provide emotional support. This will provide incentives for testing and behaviour change.

Food supplements should be treated as drugs and prescribed accordingly to malnourished children and PLWHA who may not afford food.

There should be integration of IMCI and Reproductive Health services in all district health systems.

Local communities should be empowerment by allowing them to elect local health boards to improve transparency in the use of resources.

Table 8.4 below shows the logical framework for the implementation of the recommendations.

Table 8.4: Logical framework to reduce morbidity and mortality from preventable and curable conditions

Narrative summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p>Goal: To improve the general wellbeing of Zambians</p>	<ul style="list-style-type: none"> ▪ Increase in life expectancy at birth. ▪ % of people living above poverty datum line¹ 	<ul style="list-style-type: none"> ▪ Demographic Surveys. ▪ Household surveys. 	<ul style="list-style-type: none"> ▪ Government approval and commitment to proposed changes.
<p>Purpose: To reduce the mortality and morbidity of Zambians from preventable and curable conditions</p>	<ul style="list-style-type: none"> ▪ 15%+ decrease in morbidity due to the 7 disease conditions. ▪ 15%+ decrease in mortality due to the 7 disease conditions. ▪ 5% reduction in adult HIV prevalence. 	<ul style="list-style-type: none"> ▪ Institutional records. ▪ Routine reporting System (HIS). ▪ Sentinel surveillance. ▪ Records reviews. 	<ul style="list-style-type: none"> ▪ The seven conditions contribute greatly to general morbidity and mortality. ▪ Government will continue being supportive of HIV testing.

¹ Poverty datum line here should be seen in line with the Zambian indicators that define poverty, because government has not established a poverty datum line.

<p>Outputs:</p> <ul style="list-style-type: none"> ▪ Rural communities have access to VCT and rural health centres/posts. ▪ Employers have work based VCT centres. ▪ Rural communities have access to trained health workers. ▪ Reduction in the number of babies born with HIV. ▪ Improvement in the quality of life of PLWHA. ▪ Improvement in rural health service provision. ▪ Political leadership of the HIV campaign. ▪ Breaking the silence around HIV/AIDS. ▪ Positive behaviour change in men. ▪ Communicable and water borne diseases prevented. ▪ Diseases of childhood recognised and treated early and correctly. ▪ Specific diseases correctly and promptly treated. 	<ul style="list-style-type: none"> ▪ 75% of rural communities have: <ul style="list-style-type: none"> - access to health posts & centres; - access to VCT services; - access to trained health workers. ▪ 75% of workplaces have VCT services. ▪ 50% reduction in number of babies born with HIV. ▪ 50% of eligible PLWHA receiving drugs report subjective improvement. ▪ 75% of rural health centres meet the minimum physical standards. ▪ % politicians championing HIV. ▪ % communities freely discussing HIV. ▪ % men reporting abstinence, faithfulness and condom use consistently. ▪ % reduction in cholera outbreaks. ▪ % children being correctly attended to. ▪ % reduction in case-specific death rates. 	<ul style="list-style-type: none"> ▪ Surveys. ▪ Work place returns. ▪ Medical records. ▪ Community surveys. ▪ Other surveys. 	<ul style="list-style-type: none"> ▪ Communities accept VCT. ▪ Support from the Ministries of Labour, Commerce, Legal Affairs and Community Development and Social Services. ▪ Political acceptance.
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<p>Activities:</p> <ul style="list-style-type: none"> ▪ Train rural health workers. ▪ Set up rural health posts. ▪ Set up rural VCT centres. ▪ Set up private urban VCT centres. ▪ Re-introduce rural hardship allowances. ▪ Provide drugs for MTCT and opportunistic infections. ▪ Re-allocation of health budgets. ▪ Set up presidential HIV involvement. ▪ Public media highlighting of HIV/AIDS issues. ▪ Set up HIV prevention programmes for men. ▪ Local authorities commence general cleansing. ▪ Implement IMCI in rural Zambia. ▪ Provide nutritional support to PLWHA and malnourished U-5 children. ▪ Integrate disease specific interventions against the seven identified common conditions in the health delivery system. 	<ul style="list-style-type: none"> ▪ % of rural health workers trained. ▪ % of proposed health centres actually functioning. ▪ % of rural districts with functional, adequate centres. ▪ % of private companies with VCT facilities. ▪ % of health workers receiving the allowances. ▪ % of eligible mothers actually receiving the drugs. ▪ % of eligible PLWHA receiving anti-fungals. ▪ % of total budgets spent on rural health centres. ▪ % HIV initiatives initiated by the President. ▪ % of public media carrying HIV stories per issue/day. ▪ % of programmes targeting men. ▪ % of local authorities abiding by the Public Health and National Health Services Acts. ▪ % of rural districts with IMCI programmes. ▪ % of eligible people receiving food supplements. ▪ % of the diseases with specific interventions in the DHMT action plans. 	<ul style="list-style-type: none"> ▪ Training reports. ▪ Community surveys. ▪ Other surveys. ▪ Medical records. ▪ MoH Financial records. ▪ Public records. ▪ Newspapers, radio and television broadcasts. ▪ MoH records. ▪ Action plans. ▪ Quarterly reports. 	<ul style="list-style-type: none"> ▪ Government acceptance of these proposals. ▪ Private companies are committed to VCT. ▪ The allowances are adequate to attract workers. ▪ Presidential acceptance. ▪ Support from the Ministry of Information and Broadcasting Services. ▪ Mechanism to enforce this. ▪ Mechanism against pilfering in place.
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