1	HIV Therapy
2	<b>Review – <u>REVISED SUBMISSION</u></b>
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4	
5	Title:
6	HIV/AIDS in Private Sector Companies: Cost Impacts and Responses in Southern Africa
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### Summary

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11 The effects of the HIV epidemic, particularly in Southern Africa, have been increasingly 12 experienced by companies in recent years. Initially, the lag in presentation of morbidity and 13 mortality allowed companies to ignore the epidemic. However, in the past decade, companies 14 have been confronted with the cost impacts of seriously ill and dying employees. 15

Companies in many countries in the region are strongly engaged in generating effective prevention and treatment and care responses to the epidemic. However, many small and medium companies ignore the problem, due to inadequate resources. Nonetheless, some large companies are pioneering best practices in workplace HIV/AIDS programmes in prevention and care and treatment.

2324 Keywords

HIV/AIDS, Private Sector, Companies, Cost Impacts, Responses, Treatment, ART, Prevention,
 Southern Africa, South Africa

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### 31 Introduction

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In this review we examine the impacts on, and responses of private sector companies to the HIV/AIDS epidemic in Sub-Saharan Africa particularly Southern Africa. Southern Africa has the worst HIV epidemic in Africa in terms of morbidity and mortality; it also has some of the best and most innovative responses by companies.

# Background of HIV/AIDS in Sub-Saharan and Southern Africa 39

40 in mortality due to AIDS has already had a significant demographic effect. The Individuals and households face increasing risks, both directly through the risk of infection and 41 42 indirectly as social insurance mechanisms are eroded. The mortality and morbidity associated with AIDS are different from any other type of sickness and disease. Whereas most diseases prev 43 largely on children or the elderly, HIV is transmitted mainly through sexual intercourse which 44 makes young sexually active adults the most vulnerable. The majority of PLWHAs are aged 45 between 19 and 45 (economic prime) and are the primary breadwinners of their families. 46 47

Sub-Saharan Africa is by far the worst affected region in the world by HIV/AIDS [1]. Despite having just 10% of the global population, it has 66% of People Living with HIV/AIDS (PLWHAs) and experienced 72% of AIDS deaths in 2007. It was estimated that about 5% of adults in the region were PLWHAs at the end of 2007, compared with a global prevalence rate of less than 1%. Table 1 summarises the latest available <u>UNAIDS</u> estimates of the numbers of PLWHAs and AIDS-related deaths in selected countries.

Southern Africa accounts for 35% of all PLWHAs and almost one third (32%) of all new HIV
infections and AIDS deaths globally in 2007.
PLWHAs at end 2007 (UNAIDS 2008).
The epidemic is occurring in the most economically
developed part of Africa with South Africa alone accounting for one third of Sub-Saharan Africa
gross domestic product (GDP).

61 The increase in mortality due to AIDS has already had a significant demographic effect. 62 Individuals and households face increasing risks, both directly through the risk of infection and 63 indirectly as social insurance mechanisms are eroded. The mortality and morbidity associated 64 with AIDS are different from any other type of sickness and disease. Whereas most diseases prey 65 largely on children or the elderly, HIV is transmitted mainly through sexual intercourse which 66 makes young sexually active adults the most vulnerable. The majority of PLWHAs are aged 67 between 19 and 45 (economic prime) and are the primary breadwinners of their families. [2]

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69 Table 1: Key Demographic Indicators of the HIV/AIDS Epidemic Prevalence and Deaths
 70 for Selected Developing Countries in Sub-Saharan Africa – 2007 [1]

Region an	d Adults	HIV prevalence	All AIDS deaths
Country	(15+)	among adults (%)	
Global Total	30,800,000	0.8	2,000,000
Sub-Saharan			
Africa	20,300,000	5.7	1,500,000

<sup>68</sup> 

	Botswana	280,000	26.5	11,000	]	
	Kenya	1,600,000	8.6	108,000		
	Malawi	840,000	13.3	68,000		
	Mozambique	1,400,000	10.3	81,000		
	Namibia	180,000	14.6	5,000		
	Nigeria	2,400,000	3.2	17,000		
	South Africa	5,700,000	16.9	350,000		
	Tanzania	1,300,000	7.0	96,000		
	Uganda	810,000	7.9	77,000		
	Zambia	980,000	15.4	56,000		
	Zimbabwe	1,200,000	26.0	140,000		
72 72	Mathad The Cos	te of UIV/AT	DS to a Company			
73	Method - The Cos	IS OF THE VAL	DS to a Company			
75	There is a growing	body of evid	lence from recent research	h [23] that the HIV/	AIDS epidemic is	
76	having profound and wide ranging financial impacts on husinesses in South Africa However					
77	this data comes from relatively few and intensive case studies and many business leaders, even in					
78	high prevalence sectors of the economy, are often unable to point out <i>current</i> and <i>specific</i>					
79 '	impacts of the epidemic on their operating costs and revenue.					
80						
81	The individual costs of having one employee with HIV/AIDS are composed of direct or out of					
82	pocket costs and indirect or productivity linked costs. The direct costs include increased medical					
83	costs and the costs of recruiting and training replacement employees. The indirect costs include					
84	the reduced productivity of the ill employee, their increased leave and absentee days, increased					
85	supervisor's time in managing the ill employee, the costs to production until a replacement is					
86	hired and initially lower productivity of that new employee. [2]					

The organisational costs of many employees being ill with HIV/AIDS are also composed of direct or out of pocket costs and indirect or productivity linked costs. The direct costs include increased benefits premiums especially for health insurance, increased number of workplace accidents and increased legal costs. The indirect costs include increased senior management time to deal with HIV/AIDS related matters, disruption to production and loss of workforce morale, cohesion and experience. [2]

Figure 1 summarises these costs. This way of estimating costs, (and that in Figure 2), were developed in the late 1990's and applied in a number of studies. They remain as applicable today.

#### Figure 1: Costs of HIV/AIDS in the workforce [2]

#### Direct (out of pocket) costs Indirect (productivity) costs

From one employee with HIV/AIDS < (individual costs)	<ul> <li>Benefits payments</li> <li>Medical care</li> <li>Recruitment and training of a replacement employee</li> </ul>	<ul> <li>Reduced on-the-job productivity</li> <li>Increased leave and absenteeism</li> <li>Supervisor's time</li> <li>Vacancy until replacement is hired</li> <li>Poorer performance while new employee learns the job</li> </ul>
From many employees with HIV/AIDS	Benefits premiums     Accidents	<ul><li>Senior management time</li><li>Production disruptions</li></ul>

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112 Direct costs are out of pocket expenses for a company that will show up on the company's income statement. Indirect costs are reductions in labour productivity. Few studies exist which 113 114 make some estimates of AIDS-related increases in absenteeism [4,5] and reduction in labour 115 productivity [6]. This latter study estimated the impact of HIV/AIDS on individual labour 116 productivity during disease progression and found that the daily difference in tea leaves picked 117 by a Kenyan tea plucker with AIDS in the last three months of his or her life and a healthy worker was significantly less. The study not only managed to quantify what AIDS is costing the 118 119 Rift Valley tea estates in lost productivity but also gave employers involved in similar labour 120 intensive agricultural ventures, an idea of how the epidemic could affect them economically. 121

Hardest of all to quantify are the indirect costs resulting from multiple cases of HIV/AIDS. These impacts include: diminishing employee morale, the disruption of established work teams, the reduced efficiency of a workforce that has less experience and probably less skill, an increase in labour disputes as benefits and job security come under pressure, and the burden imposed on managers who must cope with high workforce morbidity and mortality. Most of these costs are hidden, and in some cases they will not become evident until the epidemic is further advanced.

### Timing of the Costs

130 131 Figure 2 illustrates the timing of costs and liabilities which initially are very low or non-132 distinguishable from normal employee costs. As the employee progresses into AIDS then these 133 costs increase, culminating in large termination related and replacement costs. As the epidemic 134 matures so the costs for the companies increase. Those companies faced with a significant prevalence rate often respond in various ways which does have a cost implication attached to 135 136 those actions. 137 The progression and intensity of opportunistic infections associated with HIV varies by asymptotic individual. For many PLWHA these infections can appear anytime up to 6-8 years 138 139 after infection. Initially the costs and liabilities associated with HIV/AIDS are very low or non-140 distinguishable from normal employee costs. As the employee progresses into AIDS then these 141 costs increase, culminating in large termination related and replacement costs. As the epidemic 142 matures so the costs for the companies increase. Those companies faced with a significant 143 prevalence rate often respond in various ways which have a cost implication attached to those 144 actions.

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#### Figure 2: Progression of cases, costs, and liability [2]

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158 There is now a large a growing body of evidence from a decade of intensive work on estimating 159 the costs of HIV to companies [7-14]. However, not a lot of this work is available in the public 160 domain as cost impact studies are often done by private consultants and the results held by the 161 commissioning company. However, a recent review of these estimates found that with few 162 exceptions the annual labour costs of HIV morbidity and mortality rarely exceeded 3% of payroll [8] thereby indicating why may companies ignore the effects of HIV/AIDS. The costs of an 163 164 AIDS death or retirement depends upon the skill and productivity level of the employee and hence their salary level. In the review it was found that the average costs per AIDS related 165 termination as a multiple of annual compensation (wages and other benefits) varied between 0.9 166 and 4.7 percent [8]. One AIDS related death has a severe cost impact whilst simultaneously the 167 168 overall cost burden is relatively light.

However, the HIV epidemic has become a major threat to employment objectives and labour
market efficiency [15]. The loss of workers and workdays due to AIDS-related illness or the
demand for caring can result in a significant decline in productivity. Moreover, this leads to a
loss of earnings and attrition in skilled and experienced workers. The obvious effect on the
labour force is a reduction in the number of people of working age.

176 AIDS deaths lead directly to a reduction in size of the labour force [9]. The deaths due to AIDS occur to workers in their most productive years. In 1999, 80% of the new infections were aged 177 178 between 20 and 49. As younger, less experienced workers replace these experienced workers, labour productivity is reduced. For example, a Kenyan sugar estate estimates a 50% decrease in 179 180 production, as most of the experienced workers died of AIDS related illnesses between 1993 and 181 1997 [10]. The health cost increased tenfold and funeral costs five times. Shortages of workers lead to higher wages, which lead to higher production costs which erodes international 182 183 competitiveness and exports. 184

In Southern Africa the projected decrease in the labour force participation is 19% for men and
18% for women. South Africa is losing an annual estimated R12 billion (US\$1.2 billion) due to
absenteeism, of which approximately R2 billion (US\$200 million) can be attributed to the effects
of HIV/AIDS [11]. The absenteeism rate for PLWHAs was three times higher than others.
PLWHAs were absent 32 days a year on average [11].

# 191 Company-Responses192

Company responses to HIV/AIDS among employees can be summarised under two categories: prevention and treatment and care. Individual company treatment responses have been slow until recently when treatment costs reduced substantially. As more (mainly larger) companies have recognised the problems and commenced activities to prevent transmission and treat their ill employees, a more coordinated approach has emerged in the forms of business coalitions against HIV/AIDS [101-10444-47].

200 Typically, companies have two objectives in undertaking a workplace HIV/AIDS program: (i) to 201 limit the incidence of new infections among staff and the surrounding community and (ii) to 202 manage the impact of existing infections on the company, staff and community. To achieve these objectives a company's programme might set goals in two areas: (i) changing behavior and 203 204 increasing the use of preventative measures and (ii) improving medical care and support to 205 PLWHAs. In some cases, companies aim to raise its corporate responsibility profile in the area 206 of HIV/AIDS by choosing to take a leadership role in mobilising the business community, 207 getting involved in advocacy at a regional or national level, or supporting social programmes [16-208 18].

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210 There are regional differences in the response of business to HIV/AIDS. Companies with 211 operations only in America and Europe are less likely to have workplace programmes where

212 health insurance covers the costs of treating HIV/AIDS. Companies with African operations are

213 more likely to implement workplace HIV/AIDS programmes. More than 70% of <u>multinational</u>

214 companies surveyed with operations in Africa are now fully subsidizing access to HIV treatment

for all employees.[19]- Some African companies also provide confidential testing services and
 access to treatment for registered or legal dependants <u>although most indigenous companies have</u>
 <u>been very slow to offer treatment to their AIDS ill employees</u> [19].

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South African-based companies lead the way internationally in the response to HIV/AIDS.
However, provincial variation can be found with companies in provinces. Companies in Gauteng
province, the economic powerhouse of South Africa, (adult prevalence 21%) and KwaZulu Natal
(28%) are more likely to have implemented programmes than lower prevalence provinces like
the Eastern Cape (19%) and the Western Cape (8%) [1, 13].

The South African Business Coalition on HIV/AIDS (SABCOHA) is working with a number of organisations including Eskom Holdings Limited, Daimler Chrysler, the International Labour Organisation (ILO) Project (involving Volkswagen's eight supplier companies as part of a broader ILO Pilot Project), and the Japan Bank for International Co-operation (JBIC), to address this issue. In June 2008, SABCOHA began to offer supply, or vendor chain, companies the opportunity to provide free VCT and treatment to their employees as part of a comprehensive workplace programme [44101].

233 Small and micro enterprises (SMEs) are not responding as well to the threat of HIV/AIDS [20]. 234 In South Africa, medium and large companies employ 26% of the working population. SMEs 235 provide more than 55% of total jobs, and account for 22% of GDP. Yet only about 25% of 236 SMEs are estimated to have established any workplace programmes [21]. This is despite the fact 237 that potentially, HIV/AIDS could have a more significant impact on SMEs - losing a worker in a 238 SME can represent a significant proportion of the workforce leading to a reduction in 239 productivity and high cost of retraining workers, especially skilled staff but they provide fewer 240 benefits to employees. SMEs also lack dedicated Human Resource management staff and/or 241 systems to assess, monitor and devise HIV/AIDS workplace programmes [21, 22].

242 The matrix Table 2 below offers insight into the impact of and response to HIV/AIDS by 243 companies according to company size. The impacts and responses have been ranked in order of 244 importance of HIV/AIDS-related costs taken from a study [23] of South African businesses in 245 2004. Based on a number of South African studies [3, 12, 13, 24, 25, 26] and a global review [27] of 246 business perceptions of the epidemic covering the opinions of 10,993 business executives in 117 247 countries suggests the most common responses. There are exceptions to this norm as there are 248 small and medium size companies who do provide VCT and treatment. Conversely there are larger corporate who do not provide the basic of prevention programmes. The construction sector 249 within South Africa has been eritisised criticised for their lack of engagement to HIV/AIDS 250 251 impact mitigation activities.

### 252 Table 2: Impacts and Responses of Companies by Number of Employees

Company Size <100 employees		100-500 employees		> 500 employees		
Ordered Impact and Response	Impact	Response	Impact	Response	Impact	Response
1	Lower productivity and	HIV/AIDS policy	Lower productivity and increased	HIV/AIDS policy	Higher employee benefit costs	HIV/AIDS policy

	increased		absenteeism			
	absenteeism					
2	Loss of experience and vital skills	Some Education and Awareness activity – usually taking the form of posters and condom distribution	Higher employee benefit costs	Some Education and Awareness activity – usually taking the form of posters and condom distribution	Intervention costs: Voluntary counselling and testing or HIV/AIDS awareness programmes	Establishment of an HIV/AIDS committee and/or coordinator
3	Higher labour Turnover rates		Loss of experience and vital skills		Lower productivity and increased absenteeism	Education and Awareness activities
4	Higher employee benefit costs		Higher labour turnover rates		Intervention costs: HIV/AIDS Treatment	VCT
5	Higher recruitment and training costs		Higher recruitment and training costs		Intervention costs: Research into the impact of	ART provision

# 256 Prevention Activities257

# 258 Peer Education259

Studies [28-30] have shown peer education to be one of the most widely-used strategies for raising awareness of HIV/AIDS. Peer education typically involves training and supporting employees to affect change among their peers. Principles and components that affect HIV/AIDS peer education programme quality and effectiveness include: (i) providing training for peer educators; (ii) compensating them in some way; (iii) involving them in the design of training curriculum and materials; and (iv) linking the education programme to other services such as access to condoms, medical care and voluntary HIV counselling and testing.

### 268 Voluntary HIV Counselling and Testing (VCT)

Many people are unaware of their HIV status. From a behavior change and treatment
 perspective, this knowledge is critical. VCT has proven effective in promoting prevention for
 those who test negative and behavior change for those who test positive.

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Although participation in workplace VCT Campaigns is often limited [24], VCT uptake is increasing over time. When AngloAmerican started their VCT campaign in 2003 they had less than 10% uptake. In 2005 this increased to 31% and in 2007 it reached 72% [31]. This appears to be the trend in other companies who have ongoing VCT programmes for a number of years. There are some 'best practice' examples of companies like Shell (Kenya) who have achieved

279 VCT uptake of in excess of 90% [32].

## 281 *De-stigmatizing the disease* 282

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Discrimination in the workplace reinforces stigmatization of PLWHAs. At the same time, the workplace offers a unique opportunity to confront societal discrimination and stigma by dispelling myths and communicating that there is no need to fear PLWHAs.

These messages can be further reinforced by workplace-based, anti-discrimination policies and programmes which demonstrate that people can live and work with HIV, often for many years. Encouraging an HIV/AIDS support group for employees, or involving PLHWAs in company awareness activities, can also be a powerful means of breaking down misconceptions, fostering understanding and acceptance, and enabling employees to freely and openly participate in company treatment programmes [33-34].

### 294 Treatment and Care Activities

In some enlightened, but still rare cases, the costs of anti-retroviral treatment (ART) for infected
employees are met by the companies themselves [24, 35-38].

299 There is now a discernable shift from orthodox occupational health programmes, to designing 300 and implementing programmes aimed at treating and managing their infected employees, 301 especially amongst larger companies. A number of factors have contributed to this situation, 302 including: 303

304 Maturing epidemic: An increasing number of infected employees are falling ill and employers 305 are starting to experience the financial effects of the epidemic by way of rising absenteeism and 306 increasing staff turnover rates.

*Falling costs of treatment*: The cost of treating a PLWHA has dropped considerably. In 1998, the
 annual cost of treating a PLWHA stood in the region of \$US7,000 while in 2008, it was \$US250
 per annum. This has resulted in companies reassessing the provision of treatment to employees
 [39].

Activist pressure: Civil society, trade unions and NGO's have lobbied governments to provide
 treatment to PLWHA. This coupled with a growing corporate culture of providing treatment, has
 resulted in more companies developing programmes to treat their infected employage

315 resulted in more companies developing programmes to treat their infected employees.
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317 The majority of countries have implemented national ART programmes which vary in terms of
318 the extent to which they provide comprehensive treatment and in terms of access, but this move
319 has prompted companies, in particular multi-nationals to begin forging partnerships with

320 government. These partnerships often come in the form of cross utilisation of resources. 321 Examples of these partnerships can be found in Botswana where Debswana Diamond Mines 322 opens its health facilities to the community whilst in Zambia, Zambian Breweries uses local 323 clinics and hospitals to treat its staff.

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Many companies provide ART independently of public health programmes on the grounds that the costs of not intervening would soon outweigh the costs of treatment. The general rationale is that ART enables HIV infected employees to remain productive which generates indirect savings through the saving of recruitment, training and absenteeism costs. In every company, however, the projected economic returns have yet to be fully achieved due primarily to the slow take-up of ART amongst employees.

332 Recent studies in companies providing ART reveal [21, 24]:

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- limited participation of employees in VCT, perceived to be due to persistent fears of discrimination and stigma in workforces;
- limited numbers of individuals on ART (majority of companies with less than 1% of the employees on treatment) presenting a very high cost ratio for individual care;
- tendency of PLWHAs to seek treatment once they are very sick and incapable of working, thereby confounding intentions to maintain worker productivity by enrolling individuals in health programmes before they fall ill;
- high costs in time and resources expended to enrol employees.
- Workplace ART programmes and the collaboration and partnerships they entail are an innovation that can complement government efforts to contain and manage HIV/AIDS epidemics. An important implication is that if company initiatives are to be effective and complement government efforts, there needs to be better co-ordination. The notion of 'partnership' needs to be developed for the benefit of overall treatment efforts.

Whilst companies struggle to get HIV infected employees on treatment [34], the benefits are evident [40] once an employee is successfully placed on a treatment programme. A study at a Kenyan tea estate has revealed that after 12 months on ART, employees worked at least twice as many days in the month than they would have in the absence of ART. This study is the first and only one of its kind and there is a real need for further research in this field.

### 355 Conclusions and Future Perspective

356 357 At the end of 2008 the global economy appeared to be spiraling into recession. The switch from boom to bust happened in a few short months. In July 2008, oil prices reached an all time high of 358 359 \$147 per barrel and, most commodity prices were rising rapidly and it seemed that there was 360 little to worry about in global economic terms. In January 2009 oil had fallen to less than \$34 per barrel [41] and most other commodities had fallen dramatically. In November 2008, the IMF 361 362 warned that prospects for global growth had deteriorated and the evidence since then is that the 363 contraction has continued. The IMF predicted that world output would expand by 2.2% in 2009, 364 down by some 0.75% of GDP compared to their October forecast. In emerging markets, growth 365 would 'slow appreciably'[42]. 366

The consequences of a global recession will be far reaching. Slower growth means fewer jobs and redundancies. Pressure on the private sector profits will lead to a greater focus on core business which means that if HIV interventions and AIDS treatment are not seen as crucial then

370 there may be cut backs. There will also be an impact on international foreign aid. Data show that

371 after the 1991 banking crisis in Scandinavia foreign aid flows from Finland, Norway and Sweden 372 fell and took between 7 and 10 years to recover. Many philanthropic bodies have their resources

invested in the world's stock markets and they may face constraints as returns fall. The point of this is simply to note that the world has changed and it is crucial that those working in the field

375 of HIV/AIDS recognise this.

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However, the impact of HIV/AIDS on companies is very real. Companies in many countries are now strongly engaged in generating effective prevention and treatment and care responses to the epidemic. However, this does vary by company size, with many small and medium companies continuing to ignore the problem, due to inadequate resources. Whilst some large companies are pioneering best practices in workplace HIV/AIDS programmes in prevention and care and treatment.

Expectantly, those companies whose profitability is more adversely affected have more
motivation to respond; also companies that are more profitable have the financial capacity to
respond. Secondly, those companies who experience more pressure through union and public
opinion are more likely to respond [43].

To ensure that the economies within the countries in Southern Africa remain buoyant, there is a need for companies and government to work together in an effort to manage HIV/AIDS. This means maximising treatment efforts throughout the economy through the fostering of partnerships. Whilst managing the health of PLWHAs remains important, it does not hide the fact that this exercise acts only to mop up an ever increasing flow of new infections. The ultimate objective remains to halt new infections and this can only be done through successful prevention and treatment programmes championed by companies.

There is much work remaining to be done in companies to adequately address the impacts of this
 large epidemic.

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### **Executive Summary** Scale of the Epidemic **Cost Impacts on Companies Company Responses**

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epidemic.

#### Conclusions

Companies until the last decade ignored the increasing level of morbidity and mortality. • 

The unprecedented scale of the HIV epidemic, particularly in Southern Africa, has meant

The cost impacts have been increasingly experienced by companies in recent years. The

lag in presentation of morbidity and mortality allowed companies to initially ignore the

Companies in many countries are now strongly engaged in generating effective

However, this does vary by company size, with many small and medium companies

Some large companies are pioneering best practices in workplace HIV/AIDS

that companies have been confronted by many sick and dying employees.

• Evidence on private sector responses shows wide range of responses

The impact of HIV/AIDS on companies is now very real.

prevention and treatment and care responses to the epidemic.

continuing to ignore the problem, due to inadequate resources.

programmes in prevention and care and treatment.

449 450 451 452 453 454 455	• Data on private sector responses is limited, as such, there is little comprehensive data on the costs of HIV on private sector in southern Africa. Lack of information is the reason for many companies continuing to ignore the epidemic. However, there are companies which have recognized the threat and in developing workplace programmes; have become leaders and exemplars of 'best practice'
456 457 458 459	• The HIV response in the private sector is evolving – early interventions that focused on education are now incorporated into broader programmes (VCT and provision of ART, supply chain etc)
460 461 462 463	• There is much work remaining to be done in companies to adequately address the impacts of this large epidemic.

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