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PILOT REPORT

HIV/AIDS Financial and Managerial Impacts
and
the Development of Coping Strategies

Directed by the Botswana Confederation of Commerce Industry
and Manpower (BOCCIM)

Sponsored by the US Agency for International Development and
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Introduction

The purpose of the BOCCIM-sponsored HIV/AIDS Financial Impact Pilot Study was to assess the feasibility of undertaking:

- a large-scale quantitative survey of the financial impact of HIV/AIDS on the private sector in Botswana;
- a managerial impact study linked to financial impact which would form the basis for the development of a management training course.

The Terms of Reference for the study, and the large-scale study workplan and methodology, as approved by the Reference Group in May, 1994, are attached in Annex.

The following Pilot Report will discuss the process of undertaking the Pilot and the degree to which the Pilot was successful in determining the feasibility of the implementation of a large-scale survey of private sector impact in Botswana and the development of management training based on the results of the impact study.

The major focus of the Pilot Study was to test the methodology developed for a large-scale financial and managerial impact survey in Botswana. The methodology considered impact criteria from recent HIV/AIDS private-sector-impact related studies undertaken in Zambia, Zimbabwe, South Africa, Malawi, Kenya and Swaziland (see References). Particular assistance was provided by the AIDSCAP Department of Family Health International in the US.

Based on information collected from Pilot companies, an assessment has been made that a large-scale quantitative financial-impact analysis, with management and training components, can and should be undertaken by BOCCIM. The Pilot has confirmed the ability of a large-scale study, as defined in the Terms of Reference and Workplan, to collect and analyze historical data, develop future potential financial impacts, using statistics furnished by the Botswana Ministry of Health's AIDS/STD Unit, and investigate and evaluate the management impact which would lead to the development of management training.

Selection of Pilot Companies

The Reference Group determined that the majority of companies targeted for the Pilot should be large organizations. By focusing on large organizations the likelihood of observing trends and collecting data related to impacts of HIV/AIDS would be greater than if attempting to observe patterns in companies employing small numbers of people. With one exception, all of the approached Pilot companies employ over 50 people with the clear majority employing well over 80 people. One small business was selected in order for the Pilot to test the feasibility of including small business in the group of sample companies. This was done as a result of the mandate of the Botswana Private Enterprise Development Project (BPED) and the requirement to make small business a major beneficiary of a large-scale impact survey

and training activity.

The organizations requested to participate in the Pilot were selected so as to represent various sectors of the economy. Another factor which influenced the final selection of Pilot companies was the affiliations of the Reference Group members with targeted Pilot companies, which facilitated initial entry into companies.

Most Pilot companies were selected from Gaborone. Those few that were not are located in areas whose patterns of HIV/AIDS infection are similar to Gaborone, according to the Ministry of Health. In the case where an organization had operations throughout the country, but with the vast majority of employees located in Gaborone, it was agreed that company data would attempt to exclusively report on Gaborone operations since Gaborone infection figures would be used in the projection process. The one exception to this parameter was Debswana's Jwaneng Mine, which although located in a semi-urban area, as opposed to an urban area such as Gaborone, was identified for the Pilot because of the advanced state of its HIV/AIDS programs and management's awareness of the impact of the epidemic on business operations.

Questionnaire Finalization

As the first task of the Pilot was to finalize the questionnaire, used as the survey instrument to collect company information, five companies were visited with an HIV/AIDS impact list. The impact list consisted of the most likely areas of impact on companies from HIV/AIDS. To refine the list for Botswana, making sure that the survey did not request unobtainable information, the consultants reviewed the list with five Pilot companies before finalizing the list and developing it into a questionnaire.

Pilot Results

The following section focuses on the results of the Pilot process. One organizational analysis is included for the purposes of illustration.

Reception by Companies to Concept of Study

Initial reactions by companies to the study varied, although they were more positive to passive, than negative. The first contacts at companies were most often made at senior management level. Some of the companies were immediately supportive of the study and were interested to explore and discuss the issues with the consultants. The majority of companies were receptive to the concept of the study but had little familiarity with the issues that would be explored. Most managers mentioned the AIDS Unit billboards they had seen around Gaborone, but few had thought about the issue in a workplace context.

The initial meeting with companies to discuss the questionnaire often evolved into an HIV/AIDS-impact presentation to management, explaining the concept behind the study.

In a few situations the company did not wish to meet with the consultants before receiving the questionnaire, but preferred to contact the consultants should any problems or questions arise. In these cases there seemed to be less interest, yet the company did not directly refuse to participate; it seemed fairly obvious that the manager(s) involved considered HIV/AIDS impact a non-issue, or a low priority. On occasion, this was confirmed in unofficial discussions with other members of the organization. In these less-interested situations, however, people did not appear anxious or uncomfortable discussing HIV/AIDS; they simply acted as though it was not a concern, therefore, not something on which to spend time and energy.

Few managers were aware of the release of the National AIDS Policy and its legal implications. Few managers were aware of the Ministry of Health's AIDS in the Workplace Peer Education program, but once the consultants mentioned the service they expressed interest in contacting the department to inquire about the development of AIDS programs in their workplaces.

If managers have not already considered the implications of HIV/AIDS it is through initial meetings that they have the opportunity to explore overall issues and begin to better understand the implications. It is also during initial meetings that an organization's specific concerns are often brought out, ie: localization planning, funeral policies, or training and promotion policies, which, after spending time discussing the subject, persuades management that the study will explore potentially valuable issues.

Top management commitment is essential to company participation in the study and management receptivity to any other HIV/AIDS-related activities. The questionnaire seeks historical information from the company three to five years in the past, which, if a company does not have computerized human resource records, is a time-consuming task. If managers are not convinced of the utility of the study they are less likely to spend time and resources collecting information.

Recommendation: A face-to-face meeting with some member(s) of an organization's management in order to discuss the concept of the study and the potential issues facing businesses is necessary before moving to collect any specific information. It is preferable to include line managers as well as some members of senior management, in particular, those who will be responsible for completing the questionnaire.

Company Cooperation

The vast majority of companies approached for the Pilot study, although a certain amount of background discussion may have been required, agreed to complete the questionnaires. In the few

situations where a company did not refuse but was unable to meet the Pilot deadline, they were direct about making such time constraints known; but they did agree to participate in any follow-on activities. The chart attached in Annex illustrates the range of company participation and presumed interest in the Pilot, the overall survey, and the training activity.

Companies were concerned about confidentiality, but the consultants made it clear that the Pilot Report was only for circulation among the Reference Group for the purposes of evaluation and that all future activities would keep all company-specific information confidential.

After initial discussions between the consultants and senior management, a few of the larger companies, in which decision making is not centralized, wanted to review the questionnaire in-house before deciding to participate. Bureaucratic structures added to turnaround time. In very large organizations without computerized personnel systems, four weeks was considered necessary.

Where companies made it clear that they would not be able to meet BOCCIM's deadline they agreed to provide the questionnaire as close to the deadline as possible.

While participating companies initially agreed to submit data by the stated deadline, not one was able to meet the deadline. On average, most companies felt that three weeks to complete the survey, from the time it reached the actual data-collector's hands (which could itself take three to five days) was reasonable though still conservative. As information is required from different departments, in larger organizations the process of passing the questionnaire from one person to another complicates data collection and adds to completion time.

Because questionnaires are often turned over to less-senior members of the organization to be completed, another short meeting to review the questionnaire for clarification purposes is necessary to avoid lost time at the companies during the data-collection process. It is important that there be sufficient time for an organization to return to its records to clarify information, if necessary.

A few of the larger organizations requested assistance from the consultants in compiling data, which was provided.

Recommendation:

- Four to five weeks minimum for questionnaire completion;
- Time allocated for follow-up meetings to review questionnaires and resolve ambiguities;
- Support must be available from the study for data collection and processing leading to the completion of a questionnaire;

Epidemiology

The Pilot had to collect and develop epidemiological data on HIV and AIDS as the basis for the impact on business. This directly utilised the MoH/ASU data, where available, and relied on MoH/ASU advice and the US Centers for Disease Control and World Health Organization EPI model to generate further required statistics. The study accepted ASU judgements on all epidemiological matters.

This section of the report, therefore, sets out the basis for selection of the scenario on which to base projections of future financial-impact variables. The final scenario chosen was tested against other possible scenarios, and it is important to note that key variables, such as new AIDS cases and mortality, were not highly sensitive to different assumptions. The epidemiological statistics necessary for developing projections for a full-scale survey has therefore been generated for Gaborone. If companies in Francistown were to be included in the survey it would be valuable to calculate a separate set of projections, although the same scenario selected for the Pilot would be used.

The process undertaken to arrive at a final projection scenario is discussed below.

I. ASU Data

The ASU has obtained data on HIV infection rates among pregnant women in Gaborone for 1992, 1993 and 1994 from its sentinel surveys of women attending antenatal clinics. It is the ASU's view that using this data along with the internationally recognised male-female ratio of 0.82, current infection rates can be derived. The study did this specifically for Gaborone, while it was the ASU's belief that this represented a close approximation of the situation in Lobatse.

These data of current HIV infection rates for 1991, 1992 and 1993 were used as inputs into the WHO EPI model, which calculates other variables for each of these years: new and cumulative HIV infection, new, current and cumulative AIDS rates and new and cumulative mortality levels. The model does this by requesting the start year for the infection and the peak year of new infections as well as allowing the user some latitude in judging the slope of the curve portraying the development of the epidemic.

Using the 1992 and 1993 figures as input, and 1994 as the peak year of new HIV infections, estimates of the variables were obtained for the previous years.

Projections of years from 1995 were made using different assumptions in the model to develop different scenarios.

II. Common Assumptions

1. Infection started in 1983, based on the first recorded case of, and death from, AIDS in 1986;
2. The growth of the infection follows an S curve- this is entrenched in the model and follows the experience of other countries in Africa;
3. No account is taken of the changing population- as the variables are expressed in terms of percentages, this is, in effect, an assumption that there is no significant change in the profile of the population by age and gender over the period.

While the model has obvious limitations it will be shown below that the future impact is not highly sensitive to different assumptions. Given the present measured levels of HIV infection it is clear that there is going to be a rapid increase in AIDS cases in the very near future.

NB: As can be seen from the chart on "New Deaths" compared to "Current HIV," the model uses WHO estimates of the transition period from HIV to AIDS of 50% developing AIDS in less than ten years from contraction of HIV. In ASU opinion, in Botswana the transition from HIV to AIDS occurs faster, which would greatly bring forward the future impact

III. Different Assumptions Made for the Scenarios (as discussed with WHO epidemiologist)

Scenario 1.

- Quite Probable, but optimistic (conservative);
- Peak of new infections is 1994.

Scenario 2. and 3.

- Optimistic (conservative);
- Peak of new infections assumed to be 1992 and 1993;
- For these scenarios to hold true, the growth in the infection rate measured by the ASU their sentinel surveys must be inaccurate, and more specifically the measured infection rate must be above the actual rate in 1994.

Scenario 4.

- Baseline Scenario
- i) The peak in new infections is 1994.
- ii) Transmission **stops** in 1994.

IV. Sensitivity of Variables to the Different Scenarios

As shown in the charts in Annex, the different scenarios assumed for the HIV-infection rate do not greatly affect the number of people suffering from AIDS and the mortality rate in future years. With the period between contraction of HIV and the development of AIDS and illnesses related to AIDS, those who will

be ill in the near future, and dying, have already contracted HIV. The future impact on businesses therefore is not greatly affected by different judgements about the likely growth of HIV from 1994. The impact is going to occur and is going to be significant. In recognition of this, Scenario 1., judged conservative but most probable of the four by the ASU, was used for the projection of the financial-impact variables.

Questionnaire

As described in the methodology, the questionnaire was developed for the large-scale survey to measure groups of identified financial and managerial impacts. The identification of the impacts is outlined in the methodology/workplan documents attached in Annex, as is an example of the questionnaire.

The experience of the pilot in measuring each category of impact is outlined below with recommendations for the full-scale survey.

I. Basic Financials

It is important that all companies fill in the financials as they enable a common denominator to be used for expressing the financial impact and hence aggregation of the companies' data to give an overall private-sector impact. Most companies did not complete all the sections, reasons being relevance and confidentiality. The financial section was a reason for delay, as this section of the questionnaire had to be completed by an additional person in the finance/accounts section of large companies.

Recommendation: Questions should focus on total labour cost and total pre-tax salaries, which all companies were willing to provide. Total pre-tax salaries can also be calculated from questions 10. and 12. Annual turnover/total annual sales should also be asked for, although it is recognised that this will not be applicable to all companies, ie: commercial banks.

II. Staff Profile

These questions were not filled in by all respondents, mainly because of the detail requested in age, gender and grade breakdowns where only manual records had been kept. The smaller companies complied, whereas for larger companies the constraints of time and staff were too tight in the Pilot for them to be able to process the records.

Recommendation:

-Information is important, therefore, retain the questions. The possibility of statistical support for companies in processing data after it has been extracted from company files should be considered.

-Age breakdowns for questions 11. and 13. are unnecessary.

III. Mortality

Mortality and both direct and indirect costs were recorded by all companies. Mortality levels recorded were so low, however, that no discernable overall trend could be identified based on the small number of responses. When broken down by age group, there are indications of significant results from a larger sample.

Botswana Life Insurance Corp. was contacted and if it had had more time would have provided data on mortality by age group, with identification of cause, enabling a good judgement to be made as to the proportion accounted for by HIV/AIDS. Assuming that AIDS mortality/total mortality does not differ significantly between life insurance and non-life insurance holders, the age breakdowns enable attribution of mortality to AIDS.

Larger numbers of respondents in a large-scale survey would enable application of financial impact.

MoH advises that the great majority of deaths from illness under age 45 could reasonably be attributed to AIDS.

Under-recording of death rates by companies was noted as very likely, those employees that simply did not report to work before death because of a chronic illness were not necessarily recorded as having stopped work because of mortality. The result is a conservative financial measurement.

Both direct and indirect costs identified the financial impact of mortality, enabling quantifiable projections of the future impact. These link to the organizational impact and questions such as localization.

Recommendation: A large-scale survey is necessary to establish past mortality trends due to HIV/AIDS, however, the relatively low level of AIDS, and the high level of HIV indicate that the effect on companies of this impact variable will rise sharply in the coming years. The costs associated with mortality were successfully estimated in the Pilot. The skill level breakdown and levels of expatriate staff indicate that there is a very significant future impact which may be quantified with a full survey, utilizing the infection projections developed.

IV. Absenteeism

This was the most noticeable impact over the past years in Pilot companies: all companies responding showed sharp increases in absenteeism due to illness, particularly in the 25-45 age group. It is optimistic to assume that absenteeism due to HIV may be measured by the increase over the 1989/1990 level of absenteeism, as HIV rates in these years were already above five percent.

Recommendation: The impact may be estimated for the private sector in a more representative survey.

V. Health Care

None of the Pilot respondents have significant on-site health care expenses; the major health expense is the contribution to health insurance premiums of employees. A steep rise in premiums has been felt by companies, however, this cannot be attributed to HIV/AIDS from the Pilot results.

Recommendation: Liaise with major medical schemes to attempt to establish what proportion of the increases in premiums is attributable to HIV/AIDS.

VI. Retirement/Pension Benefits

If companies did have an ill-health retirement policy, it was relatively new and had not been drawn on. There was some misunderstanding due to the title of the section - the Pilot only required responses to state ill-health pension schemes and not pension schemes in general. The adoption of schemes is an important part of management coping strategies, and the need for guidance in adopting such responses was particularly noted by some respondents in discussions.

Recommendation: The section is important, but the data on schemes will be used in the managerial impact and projections of the financial impact that companies will have made payments under the schemes to date. The heading should be amended to clarify the focus of the section.

VII. and VIII. Training and Turnover

All companies were able to answer these questions successfully, although there was some difficulty with information related to internal promotions. Analysis of the training impact, which utilizes turnover figures, will only apply to projections, as it is impacted through increasing mortality, and lower returns to training investments in staff.

Recommendation: This impact is measured as a separate part of the projections as it is linked to the management impact, relating to company policy in developing a strategy for coping with HIV/AIDS. Question 43. is unnecessary.

IX. Products

Few companies recorded any impact on their products, however, no Pilot responses were received from financial institutions where there is an expected impact on mortgage lending and longer term personal loans. Little thought has been given by companies to the larger economic impact of the epidemic which, in certain sectors, could very well affect products and markets.

Recommendation: This section should be part of the managerial impact and initial and follow-up meetings with the respondents should explain its importance.

X. and XI. Managerial Impact and Coping Strategies

Most respondents had not given thought to the impact on management, although managers are beginning to become aware that there are issues they need to be exploring. None had focused on the development of strategies for addressing the impact aside from HIV/AIDS prevention-education and awareness which focuses on HIV/AIDS primarily as a health issue. There was also a very low level of knowledge of the National AIDS Policy despite its being a Presidential Directive and the first step in drawing up legislation to address HIV/AIDS in the Workplace. This points to the need for:

- i) analysis of the business impact to show business of the significance of HIV/AIDS to their organization, and
- ii) practical management training.

Summary of Questionnaire Recommendations

Both mortality and absenteeism are measurable and significant financial impacts, which may be projected over the next five years on the basis of MoH HIV and AIDS projections. The Pilot did not have a large enough sample in the case of mortality, and was not representative in the case of both impacts, in order to enable judgements about the size of the overall private-sector impact. A survey including a minimum of 50 companies of medium to large scale (approximately greater than 200 employees) would yield quantitative private sector impact measurement.

The training impact is going to be important given skill shortages in Botswana, and vacancy and expatriate levels. However, the impact may not be quantified in the same way as mortality and absenteeism as the financial impact of the training variable is indirect. HIV/AIDS lowers the return of the investment in human capital through training, however it depends on the policy decisions of the organization and judgements about the extent to which training is relevant, successful, and raises the productivity of the employee in a given period of time.

A simple framework may be used for the training impact which depends on the projected decrease in the average work period of a given grade by measuring the increasing projected death rate against the recorded turnover. In effect, AIDS means a higher turnover and, therefore, a shorter period during which the company experiences the benefits of training. See case study worked through from the pilot.

Productivity Analysis

The late submission of questionnaires resulted in the Pilot's inability to conduct the productivity analysis. The Financial Impact example included in the Pilot Report is consequently lacking inputs resulting from impacts to productivity. Options for conducting an exploratory productivity analysis before a decision is made about its inclusion in a full-scale study need to be explored.

Questionnaire- Time Span

Large organizations were able to provide information from 1993 back through 1989 concerning absenteeism and mortality. Absenteeism data in the Pilot did not always include age, while it did report professional category. In a large-scale survey, with appropriate resources (time) age breakdowns would most often be available. The key issue surrounding the a company's ability to provide data back through 1989 is the time they have to collect the information and, more importantly, incentive. Because most of the companies are required to have someone physically read through personnel files, they must have sufficient time and they need to be convinced of the value of the project as a whole.

Pilot data shows that it is necessary to look back to 1989 in order to obtain a minimum baseline figure for absenteeism (which is still a conservative baseline) before significant increases started taking place.

Record keeping in smaller companies, as expected, is often much less comprehensive. There seemed fewer opportunities to collect detailed absenteeism data beyond the past three years. Managers that have been with these smaller organizations over the past five years, however, are able to provide a general sense about absenteeism and trends over the past years. In a quantitative analysis they may have few concrete numbers to contribute, but in a qualitative sense there is sufficient institutional memory to furnish valuable information. Where numbers are obtained, however, aggregating figures into small- and medium-business clusters holds significant potential. The same is true for mortality and employee turnover.

Insurance Statistics

Statistics from medical-insurance providers revealed that nothing is known about the extent to which employees making claims covered by employer-sponsored schemes are related to HIV or AIDS illnesses. Insurance companies know that they are paying for HIV/AIDS-related treatments, but the medical information provided by physicians is said to be so vague, or completely omitted, that it is impossible to estimate the number of current or past HIV-infected claimants. It would be valuable to be able to estimate the extent to which premiums have been raised by HIV.

One scheme excludes, in policy, payment for HIV/AIDS-related treatments. They know, however, that they have been making payments for HIV/AIDS illness. Overall policies for the scheme are determined by the participating employer groups. While they are developing strategies with financial incentives for HIV/AIDS-infected subscribers to declare their sero status, the fact that this insurer excludes HIV/AIDS carries very significant implications for the companies that subscribe as well as for the insurer itself.

Another medical insurer covers HIV/AIDS-related claims up to a designated annual limit. The company agreed to provide general illness and mortality statistics, but was unable to do so by the Pilot deadline.

Financial Impact

One company from the small number of respondents is taken as an example of the calculation of the financial impact. The company employed approximately 400 people and is involved in financial services. The example analysis is then used to illustrate the projection method. The delay in receiving questionnaire data precluded further analysis of this and the other respondents.

The point of the survey is to be able to get a large and representative group in order to achieve results that closely approximate reality. Obviously, the one company presented here can in no way be seen as representative and should be seen as an illustration. Because of the high level of uncertainty surrounding many of the future impacts of HIV/AIDS, at each stage a conservative judgement is made, and alternatives are noted. These more likely alternatives are then combined to yield a measure of the financial impact in 1998.

Vacancy Rates and Level of Expatriate Staff

These two factors are not taken into account in the financial impact measurement or the narrow financial projection, but are used to develop a measure of the financial impact in 1998.

In 1993 vacancy rates (%) by grades:

A	11
B	11
C	9
D	19
E	5

In an interview, it became clear that the average time to hire a replacement (Qu.25) was the time from advertising the position to start of work when the vacancy could be filled. High (and persisting) vacancy rates indicate that the institution has often been unsuccessful in filling positions.

Levels of expatriate staff in 1993: 29% of grade D and E employees at an average premium of 43%. No account has been taken of the additional cost of recruiting expatriates to fill positions which may fall vacant due to AIDS mortalities.

Mortality

Assumed for the purpose of illustration that all death by illness in those under 45 is HIV/AIDS, a larger sample will show a better trend and in the future would also use data from BLIC and other

sources.

In this company there was only one grade E mortality in 1993 and one grade C mortality in 1991.

The direct mortality cost was calculated, from direct expenditure on the funeral, next of kin payments etc. The indirect mortality cost was calculated using the time and cost to hire a replacement, and the time for a replacement to become proficient.

<u>1993</u>	<u>1991</u>
MortCost: 55989	19581

The respondent makes no direct payments other than funeral expenses, however, it has a group life policy covering all employees, the cost of the premium payments was not included as they are not directly attributable to HIV/AIDS.

Absenteeism

The value of lost time due compassionate leave and sick leave was calculated, using the daily salary level of each grade. For each category, a measure of the proportion due to HIV/AIDS had to be derived.

1. Compassionate leave

We use the percentage of deaths in 1993 that the ASU attributes to AIDS as a measure of the percentage of compassionate leave due to AIDS. ASU does not have a measure of AIDS deaths in previous years, and we assumed that AIDS accounted for none of the compassionate leave in 1991 and 1992. It can be seen that in any case compassionate leave has had an insignificant impact, mainly because of the presently low mortality rate.

<u>Grade</u>	<u>Pula</u>
A	61.6
B	395.6
C	107.1
D	
E	
Total	564.4

2. Sick Leave

Two alternatives were identified for calculation of the sick leave due to HIV:

- a) Assumption that all of the increase in absenteeism over the 1991 figures in the age group 20-44 is HIV related. (NB: 1991 is the earliest year in which data is given on staff by age group)

- b) Taking the data of the largest institution responding (with over 1 000 employees) to calculate the increase in 1992-93 absenteeism from the 1990-92 average, and use this as an estimate of 1992-93 absenteeism due to HIV, applied only to the 20-44 age group.

Both measures are conservative as they assume no HIV related sick leave before 1992, and no HIV related sick leave in the under 20 and over 45 age groups.

Both measures yielded the same results.

<u>Grade</u>	<u>1993</u>	<u>1992</u>	<u>1991</u>
A	1793	858	0
B	20933	12698	0
C	27933	19750	0
D	38393	13109	0
E	0	1277	0
TOTAL (P)	89112	47692	0

Health Care Costs: No provision of health care.

Insurance Costs

As discussed below, it has not been possible to estimate a proportion of the rise in premiums in recent years that may be due to HIV/AIDS, although this is undoubtedly a major impact.

The respondent contributes 50% of premiums; in 1993 this amounted to:

P 284000

Ill-Health Retirement Payments: Scheme only now being developed.

Total Measured Financial Impact (P)

<u>1993</u>	<u>1992</u>	<u>1991</u>
145666	47692	19851

As a percentage of total annual salaries:

1.4 0.6 0.3

Projections: Demonstration of Methodology Using Pilot Data

It should be noted that all projections use 1993 figures, therefore, there is no account for growth or inflation. It also means that the impact can be expressed in terms of 1993 total salaries. In effect the projections are in terms of constant 1993 wages and prices.

From 1993 data, the direct and indirect cost of mortality was estimated for each grade:

<u>Grade</u>	<u>Pula</u>
A	5723
B	11161
C	21226
D	40460
E	49062

Using a weighted average, the cost of one mortality to the company is therefore:

P 17970.

Projections of Annual Deaths from AIDS

	<u>As % of Pop.</u>	<u>Deaths in Instit.</u>	<u>Mort. Cost</u>
1994	0.9	3.8	67443
1995	1.2	5.0	89924
1996	1.5	6.3	112405
1997	1.8	7.5	134887
1998	2.1	8.8	157366

Absenteeism

1. Compassionate Leave

Using a growth of rate of annual deaths, and the compassionate leave days attributed to HIV/AIDS in 1993, measured by weighted average salary.

	<u>Days</u>	<u>Cost</u>
1994	16.7	1774
1995	21.9	2319
1996	27.2	2889
1997	32.5	3458
1998	37.7	4004

2. Sick Leave

Projections were made from 1993 HIV sick leave in the 20-44 age group, using epidemiological projections of the 'current' HIV infection rates. This is very conservative as it assumes that someone in the early stages of HIV is as likely to take time off from work as someone in the later stages, and it takes no account of absenteeism due to AIDS illness.

	<u>Days per person</u>	<u>Cost</u>
1994	3.2	141909
1995	3.7	161918
1996	4.1	179890
1997	4.4	195541
1998	4.7	208466

On this conservative measure, by 1998 79% of sick leave will be due to HIV and sick leave will be almost five times the 1990/1991 level.

Alternatively, a more realistic measure for the growth of absenteeism might be the growth of new AIDS cases, which is almost twice as steep from 1993 to 1998. These arguably more realistic New AIDS epidemiological figures yield the following absenteeism costs, although they take no account of absenteeism due to HIV illness:

	<u>Cost</u>
1994	218810
1995	283287
1996	348751
1997	413239
1998	475109

Health Cost and Insurance could not be used in the projections.

Total Projected Costs

The Total Projected financial impact represents a narrow definition focusing on conservative measures of mortality and absenteeism

	<u>Cost</u>	<u>As % of Tot Salaries</u>
1993	145655	1.4
1994	211126	2.0
1995	254161	2.4
1996	295185	2.8
1997	333886	3.1
1998	369838	3.5

This financial impact does not take into account the disruption to productivity on the organisation of increased mortality and absenteeism, but assumes that the institution can costlessly adjust. Further it does not take into account the impact of HIV/AIDS on the wider economy and labour market in particular. Skilled staff are going to be more scarce meaning that vacancies will persist for longer and/or more expatriates will be hired, both of which would raise the financial impact. The full survey should attempt to evaluate these effects.

Training

The training impact is similarly very important but cannot be quantified as precisely as the other impacts in the analysis above. It is therefore discussed separately.

The return to investment in human capital through training is lessened by HIV/AIDS as it shortens the average period of work after any investment in training. Moreover HIV/AIDS has particularly affected those in mid-career in whom large investments are being made.

In this institution the average annual turnover rate has been 5.5% over the last five years. By 1998, annual deaths from AIDS will be above two percent of the workforce on the basis of the projections made. Turnover will therefore increase by more than one third, all else assumed to be equal, and the yield from training will therefore correspondingly decrease.

The training budget in 1993 =
P1 340 568

In addition the cost of the time at full salary of staff on long and short term training:

<u>Grade</u>	<u>Duration (months)</u>	<u>Total Cost: measured by salary</u>
A		
B	98.5	123913
C	290.0	731090
D	9.5	45410
E	17.5	121223
Total		1021636

Total training expense for the year=
P2 362 204

Assuming that the training expenditure remains the same, in a simplistic human-capital type of analysis, where training investment expenditure by the institution equals the value of the increased productivity to the company from the training, the value of the investment will have decreased by more than one third, a loss of approximately P800 000 per year, by 1998.

An alternative approach is to adopt the view that it is necessary to train more staff now in order to have the required trained staff in the future.

"Most Likely" Financial Impact projection for 1998

This projection uses the figures for the absenteeism impact based on the New AIDS projection of rising sick leave, calculates the impact of an average period to hire grades C to E of one year, and assumes that by 1998 two grade D and one grade E expatriates

will be hired due to vacancies arising from the impact of AIDS mortality. The financial impact of HIV/AIDS on the return to training is also included.

Financial Impact (New AIDS)	475 109
Impact of lengthened replacement time	102 106
Impact of expatriate staff	85 073
Impact on returns to training	780 000
Total	1 442 288

As percentage of total salaries: 14%

It must be emphasized that this still does not include any measure of the wider impact on productivity of an HIV/AIDS infected employee outside their own position, no impact of rising health insurance costs, which are a significant item of expenditure for the institution, and no account of the impact of HIV/AIDS on the national economy and labour market.

Management Impact

Issues currently exist within companies which would provide the basis for the development and analysis of the management-impact component of a large-scale survey.

One segment of management impact would focus on company policies related to HIV/AIDS in the workplace. The policies described by companies in the Pilot consisted of:

- funeral benefits;
- compassionate leave;
- sick leave;
- medical-policy coverage;
- long-term training, promotion and hiring;
- employee benefits (ie: loans to employees);
- ill-health retirement.

These impacts, because they deal with policy, would require consideration and evaluation, but once developed, little further attention would be necessary, except as concerns enforcement of such policies.

The second segment of management impact would concentrate on areas on which ongoing management attention needs to be focused (some of which also fall into the policy category):

- long-term training;
- medical insurance and pension management;
- employee-health and performance monitoring (related to employees that are ill and require a transfer to less-strenuous positions or employees that need to be retired);
- production (or operations) as affected by rising absenteeism, mortality, and transfers to less-strenuous positions, as well as decisions about process technology versus labor;
- organizational human resource planning, including management

- and localization requirements and strategies, and organizational ability to productively employ people that are in less than optimal health (employee transfer planning);
- strategic marketing as products could be affected by HIV/AIDS in the community at large;
 - AIDS awareness and prevention education programs.

The interviews conducted for the Pilot revealed that the above-listed issues are starting to become concerns of the companies in the Pilot, though not every company is dealing with all of the issues. A large-scale survey of companies will reveal more management impact issues, as well as draw correlations between business sector, company size, gender composition, nature of production process, location, and sets of management impacts.

While companies indicated that these issues were recognized as potential problem areas for the company, it was reported that little thought has been given to the issues. Managers seem to be at a point where they see that attention needs to be focused on the issues, but they also said they were lacking sufficient knowledge about HIV/AIDS impacts to proceed at this point. The prospect of BOCCIM exploring management issues for and with companies, providing various types of training and guidance, was welcomed.

Recommendations/Conclusions

The results of the Pilot clearly indicate that:

- a quantitative survey of the financial impact of HIV/AIDS on business is possible;
- the methodology designed for the survey is appropriate;
- managers would be interested in the results of an impact analysis and receptive to a BOCCIM-sponsored training course;
- companies expect that any type of impact analysis and training would be conducted by BOCCIM;
- the case projected in the Financial Impact section of the report further suggests that there will be a very significant impact on training programs and localization, each of which are key management issues;
- the HIV/AIDS epidemic has progressed to a point in Botswana where some management is beginning to recognize the need to focus attention on HIV/AIDS in the workplace, therefore, the conditions exist to undertake, during a financial-impact analysis, a management impact analysis which would provide the basis for management training.

The questionnaire requires very minor adjustments, and is otherwise ready for large-scale distribution.

The Study Workplan (large-scale) submitted to the Reference Group would not require revisions; a few details related to management of the study which were never finalized by BOCCIM would need to be firmly decided.

BOCCIM should be sure that the study can provide assistance when companies require assistance in collecting historical data. In some cases this will be an important component of the field work if the study is to be successful; a certain degree of flexibility needs to be structured into the study for such purposes.

A number of Pilot companies will be completing the questionnaires during the upcoming month (August), so by the middle to the end of August there will be approximately 15 completed questionnaires, many of which are medium to large organizations, which would form a significant base upon which to add the data from the large-scale survey, however, follow-up is necessary in order to assure full completion of the questionnaires already received and those due to come in.

The majority of companies in the survey should be medium to large companies.

BOCCIM, as Botswana's private sector/business organization, has a unique opportunity to spearhead the study of workplace organizational impact resulting in the development of management coping strategies and training. Through the undertaking of this study, BOCCIM will be serving the expressed needs of its members. Moreover, because no other agent in Botswana views workplace impact and coping strategies as its domain, if this work is not undertaken by BOCCIM it is most likely that it will not be undertaken, leaving employers in Botswana in a vulnerable position, ill-prepared to meet the challenges of operating in an HIV/AIDS environment.

Most companies from the Pilot have shown that they are just becoming conscious of HIV/AIDS, and have said that they would be very receptive to a private sector impact analysis and training, acknowledging the need for such information.

The companies that submitted the Pilot questionnaire by 7/29 should receive a follow-up visit for their results to be presented.

The Swedish Donor Organization, SIDA, and the Norwegian Agency for Development, NORAD, have both expressed very serious interest in assisting BOCCIM to undertake a large-scale private-sector impact study and management-training development. The strong possibility exists for the costs of undertaking this activity to come from a number of sources.

The reasons below, when considered in terms of implications for the workplace, result in the recommendation that BOCCIM undertake the HIV/AIDS Impact Study and Training Activity as soon as possible:

- the rapid increase in HIV infection levels throughout Botswana;
- the level of full-blown AIDS infections projected to occur within the coming years;
- the release of the National HIV/AIDS Policy;
- progress of the National HIV/AIDS Advisory Committee in developing a National HIV/AIDS Workplace Policy;
- the input that the results of a large-scale survey could have in the development of a National Workplace Policy;
- the need for many more companies to implement AIDS-in-the-Workplace prevention education programs, helping to stop the spread of HIV/AIDS, particularly in light of the international evidence that the workplace provides an optimal venue for prevention education;
- the fact that many companies are beginning to be aware of (although perhaps not yet at senior management level), and seek strategies to address HIV/AIDS impacts;
- the success of the Pilot study;
- the momentum built with the Pilot companies;
- the various applications and follow-ons that could result from the large-scale activity.

ANNEX

<u>Company</u>	<u>Initially Agreed to Participate</u>	<u>Reasonably Agreed to Deadline¹</u>	<u>Submitted for Pilot²</u>	<u>Agreed to Follow-On³</u>
Algo Industries	y	y	n	y
Bank of Botswana	y	y	y	y
Barclays Bank (Gaborone sites)	y	y	n	y
BDC Headquarters	y	y	n	y
BEMCO (Martex)	n	-	-	-
Botswana Diamond Valuing Co.	n (no time)	-	-	y
Botswana Meat Commission	n	-	-	-
Botswana Railways	y	n	n	y
Botswana Telecoms	y	y	y	y
Botswana Tyre	n	-	-	y
Jwaneng Mine	(did not receive answer)			
Kgalagadi Breweries (includes Segwana)	y	y	n	y
Kwena Concrete	y	y	y	y
Lobatse Clay Works	y	y	y	y
MacMillan Publishers	y	y	n	y
Motor Centre Botswana	n	-	-	-
Quick Print	y	y	y	y
Sanitas Nurseries	y	y	n	y
Sefalana	y	y	n	y
Sheraton Hotel	y	y	n	y
Solar Power	y	y	y	y
Sugar Industries	n	-	-	y
Water Utilities (Gaborone sites)	y	y	n	y
TOTAL 23	16	15	6	19

¹ When companies "reasonably agreed to the deadline," it meant that they had agreed to submit their information close to the desired date of submission. As the original deadline of 7/15 passed, and none of the companies had submitted their data (which was expected by the consultants given companies' concerns about the time required to complete the questionnaire) the companies in this category then began pushing out the date that the consultants could expect to receive the questionnaire. In some cases the company returned the questionnaire before the completion of the Pilot, and in other situations they did not, which meant it would be coming, but not for the Pilot.

² This category describes companies that were able to submit information by 7/29, which, made conditions for company analysis and writing of the Pilot Report less than optimal. The original questionnaire deadline was set at 7/15, expecting that companies would not return the survey before 7/22. The first questionnaire submitted in usable form was not returned until 7/27.

³ This category refers to companies that participated in the Pilot or had agreed to return the questionnaire some time after the Pilot, and companies that said from the outset that they were unable to participate in the Pilot but did agree to explore follow-on activities.

cochart: 8/94

QUESTIONNAIRE ON THE IMPACT OF HIV/AIDS ON BUSINESS IN BOTSWANA

1. Name of Company _____

2. Sector _____

I/ BASIC FINANCIALS

While it may not be possible to complete each question, it is necessary to have a measure of the size and profitability of the company, against which to express the financial impact of HIV/AIDS.

3. Annual Turnover _____

4. Total Capital _____

5. Total Equity _____

6. Net Profit _____

7. Total Labour Cost _____

a. Of which, total pre-tax salaries: _____

8. Return on Capital _____

9. Return on Equity _____

II/ STAFF PROFILE

The following grades are used to categorise the different skill levels in your company, and will be used in the questions below:

- Grade A: Manual Laborers/Maintenance
- Grade B: Secretarial/Support
- Grade C: Supervisors/Lower Management
- Grade D: Middle Managers/Technical Professionals
- Grade E: Senior Management

The following age categories will be used:

- 15-19; 20-24; 25-29; 30-34; 35-39; 40-44; 45-49; 50+

10. Number of employees, by age, grade and gender:

	15-19		20-24		25-29		30-34		35-39		40-44		45-49		50+		Total		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
A																			
B																			
C																			
D																			
E																			
Tot:																			

11. Total establishment positions (i.e. including vacant positions):

	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
A									
B									
C									
D									
E									
Total									

12. Average pre-tax monthly salary of each grade:

Grade	Pula
A	
B	
C	
D	
E	

13. Number of expatriates employed:

	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
A									
B									
C									
D									
E									
Total									

14. What is the average premium paid for expatriate staff (i.e. percentage above local salary)? _____

15. How many expatriate positions have been localised over the year? _____

16. How many are planned to be localised over the next five years? _____

III/ MORTALITY

17. Number and cause of Deaths, codified as follows:

Accidents = a; Illness = i; Other (please state, if known) = o

	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
A									
B									
C									
D									
E									
Total									

Direct Costs

18. What contributions does the company make to:

a. employee funeral expenses? _____

b. employee family members' funeral expenses? _____

Who are defined as members of the family? _____

19. How much has the company paid in funeral benefits in the last year? _____

20. Does the company have funeral benefit insurance? _____

21. How many employees are eligible for this benefit? _____

22. Does the company provide time off for employees to attend the funeral of fellow employees and family members?

a. If so, how much time is given? _____

23. What benefits are paid upon death of the employee to the next of kin (not funeral expenses), including any pension fund payments?

a. Do the payments differ according to the cause of death (if so, explain)?

Indirect Costs

24. What is the cost of recruiting new employees at each grade?

Grade	Pula
A	
B	
C	
D	
E	

26. What is confirmation/probation time of a new employee?

Grade	Weeks
A	
B	
C	
D	
E	

25. What is the average time to hire a replacement?

Grade	Weeks
A	
B	
C	
D	
E	

27. What is the average time to become fully proficient (if different from 26.)?

Grade	Weeks
A	
B	
C	
D	
E	

IV/ ABSENTEEISM

28. What is the level of sick pay (as a proportion of full pay), and the duration for which it is paid?

Grade	Sick Pay	Weeks
A		
B		
C		
D		
E		

29. What were the total days lost through absenteeism, recorded by cause?

Codify the causes into: funerals/compassionate leave = f
 illness (incl. clinic visits) = i
 other (incl. study, maternity etc.) = o

For example: if there was a total of twenty days of absenteeism due to funerals and six days of absenteeism due to illness among Grade A, age 25-29, then record "20f, 6i" in the appropriate box.

	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
A									
B									
C									
D									
E									
Total									

V/ HEALTH CARE

30. Does your company offer health-care coverage on-site or off-site? _____

31. If the company has on-site health-care coverage, what is the total annual cost of providing it? _____

32. What is the number of employees, by grade, that carry health insurance?

Grade	Number
A	
B	
C	
D	
E	

33. What is the company's contribution, per employee, to health insurance payments? _____

34. Has the company changed the health insurance scheme it subscribes to? If so, to which and why?

35. What is the average cost paid by the company per claim (or visit, if on-site clinic)? _____

VI/ RETIREMENT/PENSION BENEFITS

36. What is long-term disability/ill-health retirement policy? If it differs by grade, please specify.

37. If a policy exists, what payments have been made by the company, and how many employees have utilised the policy options? Please explain further if necessary.

Grade	Payments	Number
A		
B		
C		
D		
E		

38. Are employees required to undergo a medical exam to qualify for pension scheme(s)? _____

VII/ TRAINING

39. Total annual training expenditures for both internal and external training:

Grade	Training Expenditures		Total
	New Staff	In Service Training	
A			
B			
C			
D			
E			

40. Total duration of training undergone?

Grade	Weeks
A	
B	
C	
D	
E	

40a. Monthly training wage paid (if differs from normal wage)?

Grade	Pula
A	
B	
C	
D	
E	

41. How long does it take to achieve full proficiency after long-term (greater than 6 months) training?

Grade	Weeks
A	
B	
C	
D	
E	

VIII/ TURNOVER

42. What was annual staff turnover (i.e. the number of staff leaving the company)?

	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
A									
B									
C									
D									
E									
Total									

43. What was the number of internal promotions (recorded by the grade before promotion)?

	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
A									
B									
C									
D									
E									
Total									

IX/ PRODUCTS

44. Does HIV/AIDS impact the demand for any of your products, if yes which ones?

a. For each listed product explain the impact.

X/ MANAGERIAL IMPACT

45. Which managerial *posts* (not grades) do you judge (will) have their responsibilities affected by HIV/AIDS?

46. Has the organisation considered conducting an evaluation of the managerial impact, and its effect on strategic planning?

XI/ COPING STRATEGIES

47. What strategies have you developed or are thinking of developing to address the impact of HIV/AIDS on returns from training?

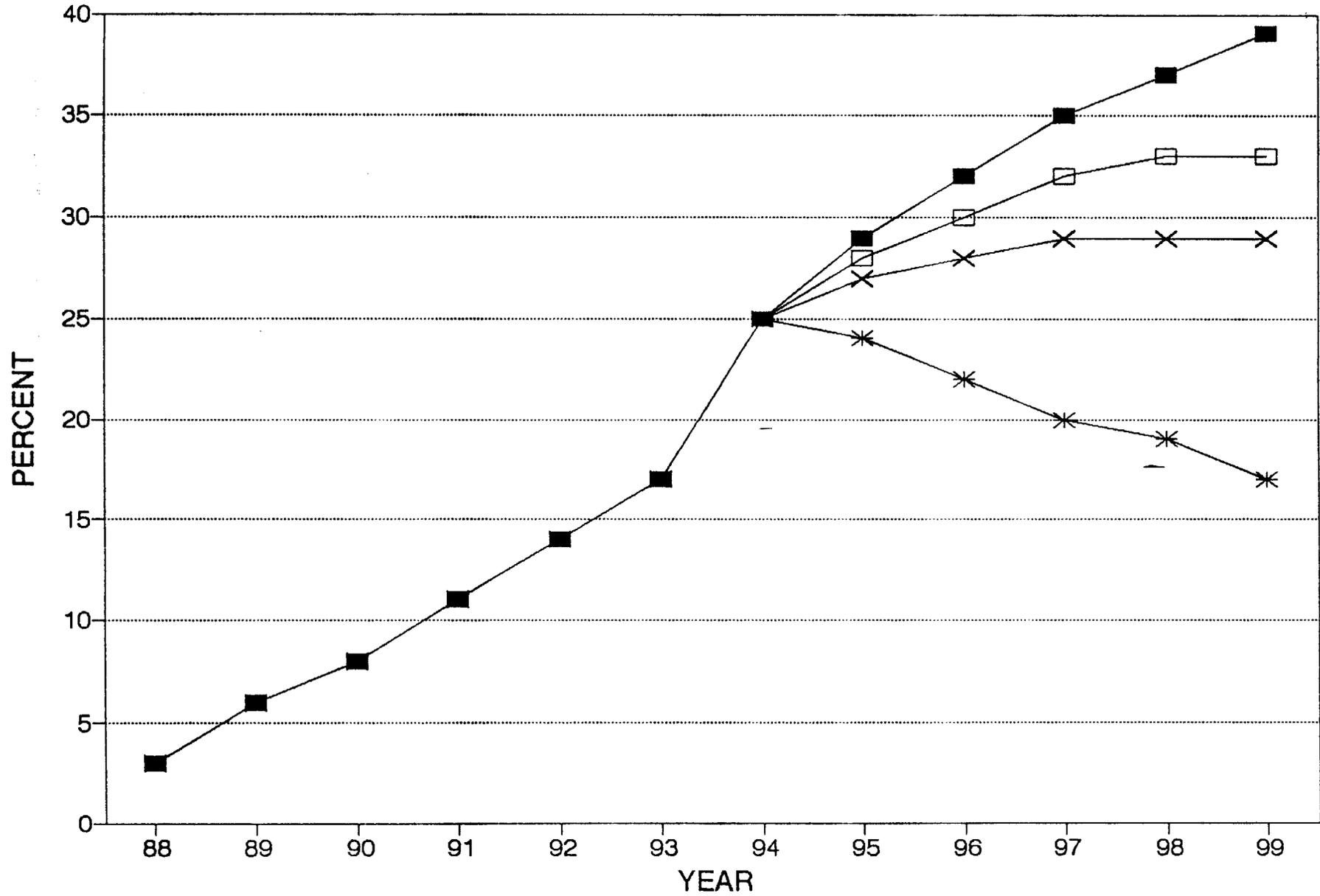
48. To what extent will you be able to move HIV/AIDS infected employees into less strenuous positions within your company?

49. Does the company have an HIV/AIDS awareness/prevention program and if so how is it targeted by level?

50. How much does the company spend on AIDS awareness and prevention within the company? _____

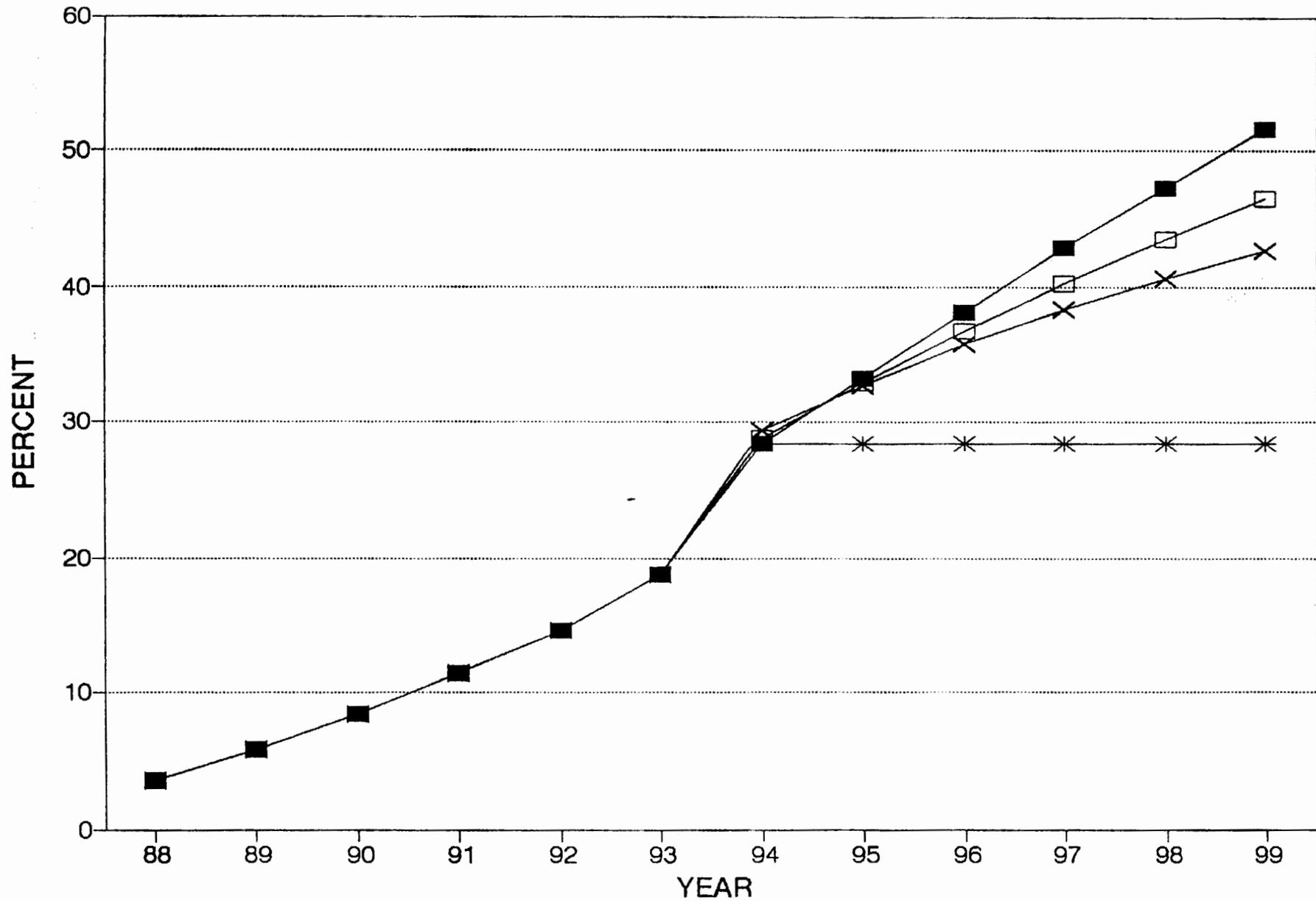
51. What do you think the impact of the National AIDS Policy will be on coping strategies?

CURRENT HIV INFECTION RATES



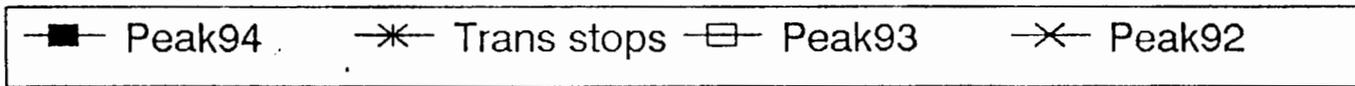
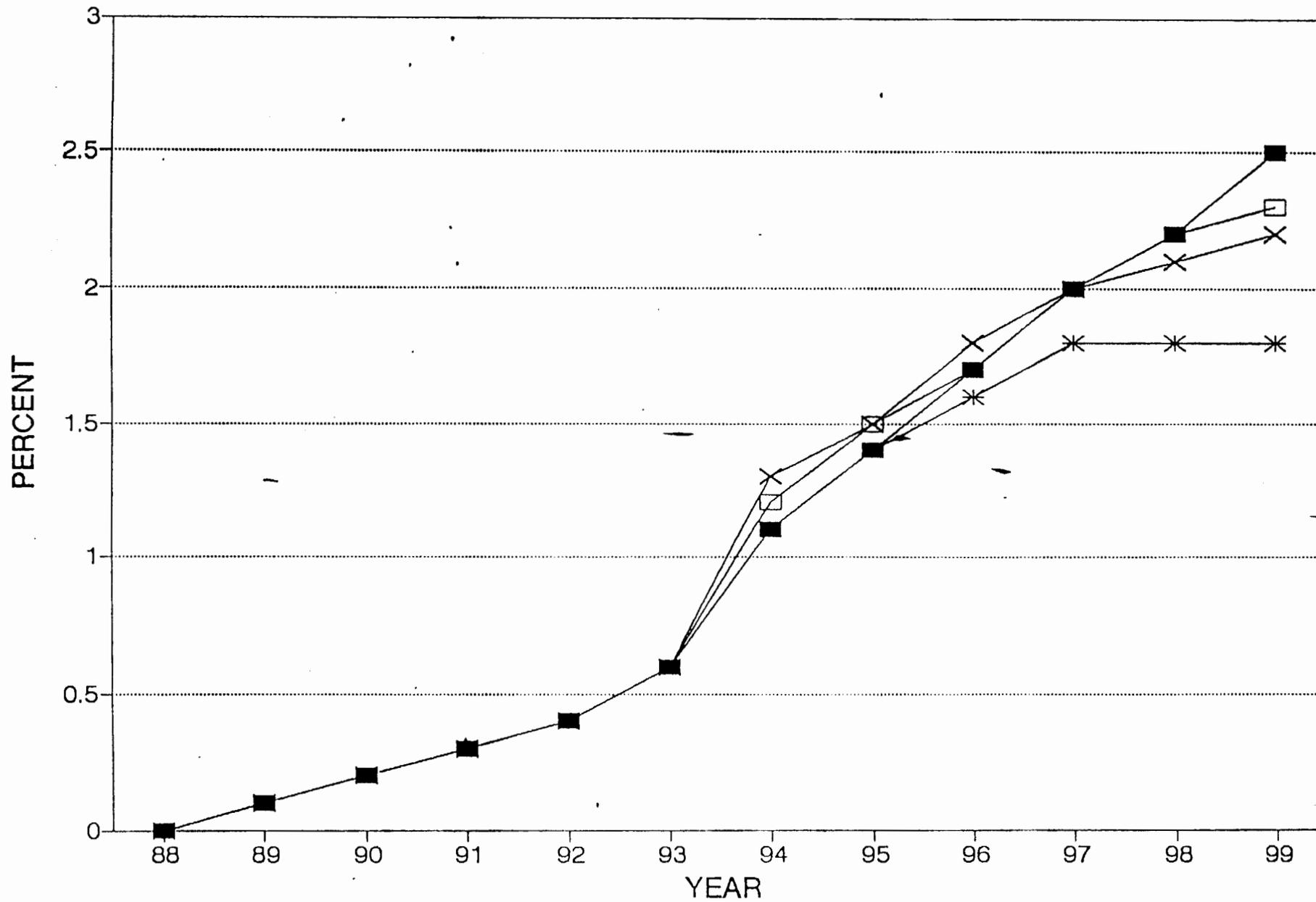
■ Peak94 * Trans stops □ Peak93 × Peak92

CUMULATIVE HIV INFECTION

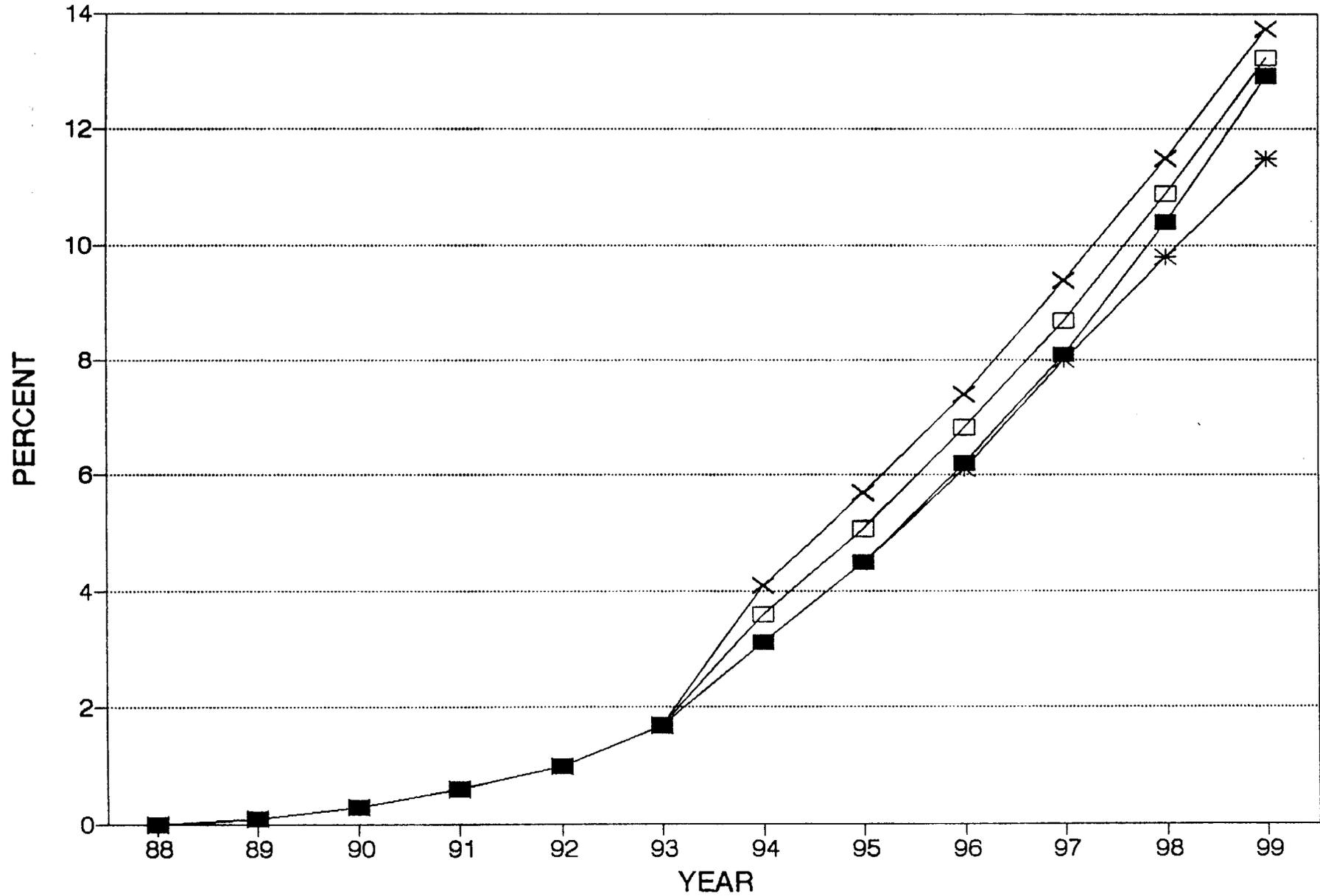


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NEW AIDS CASES



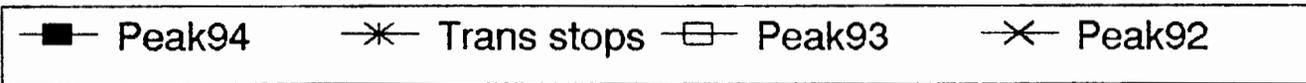
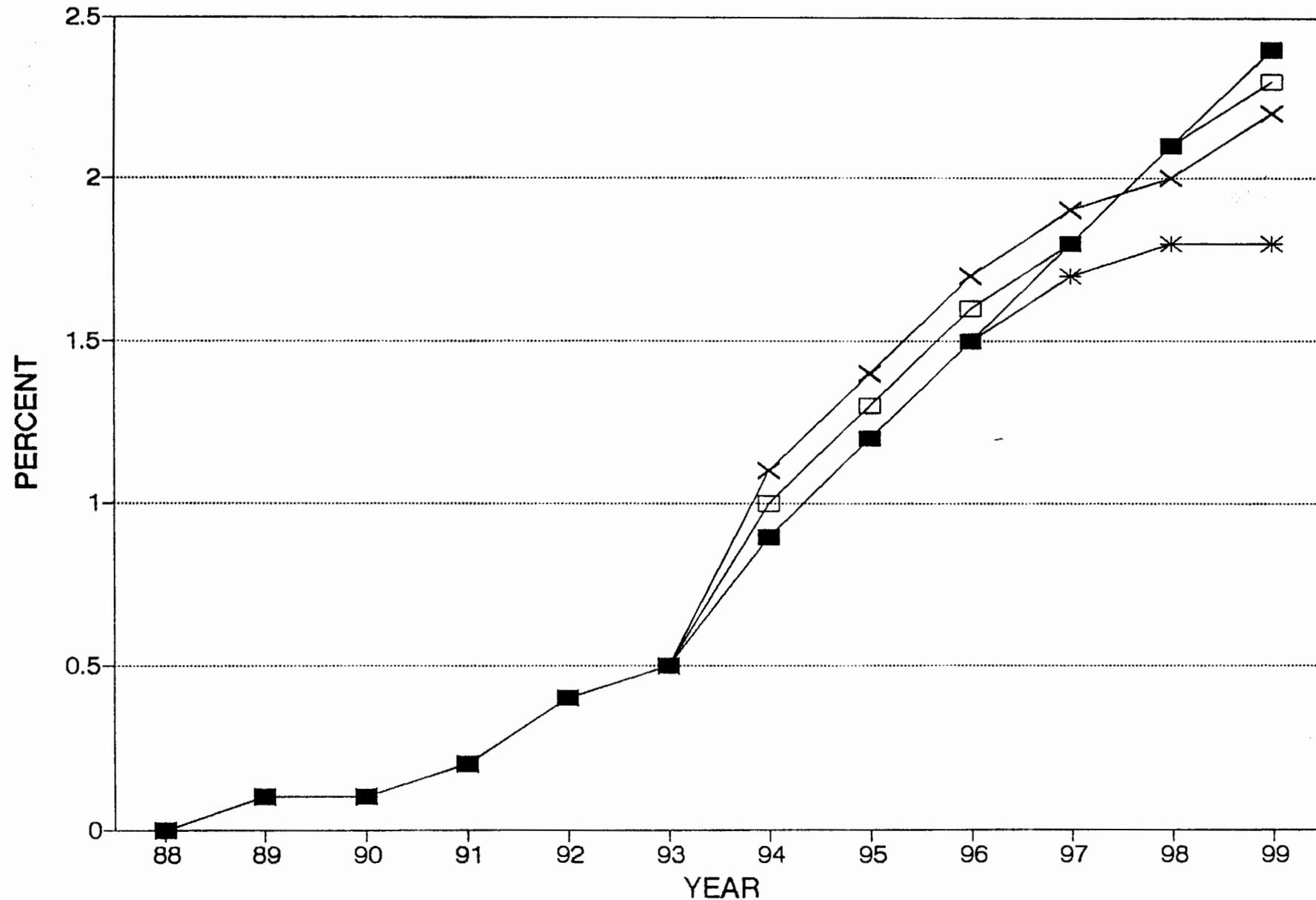
CUMULATIVE AIDS CASES



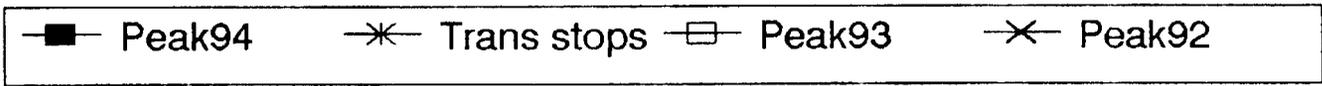
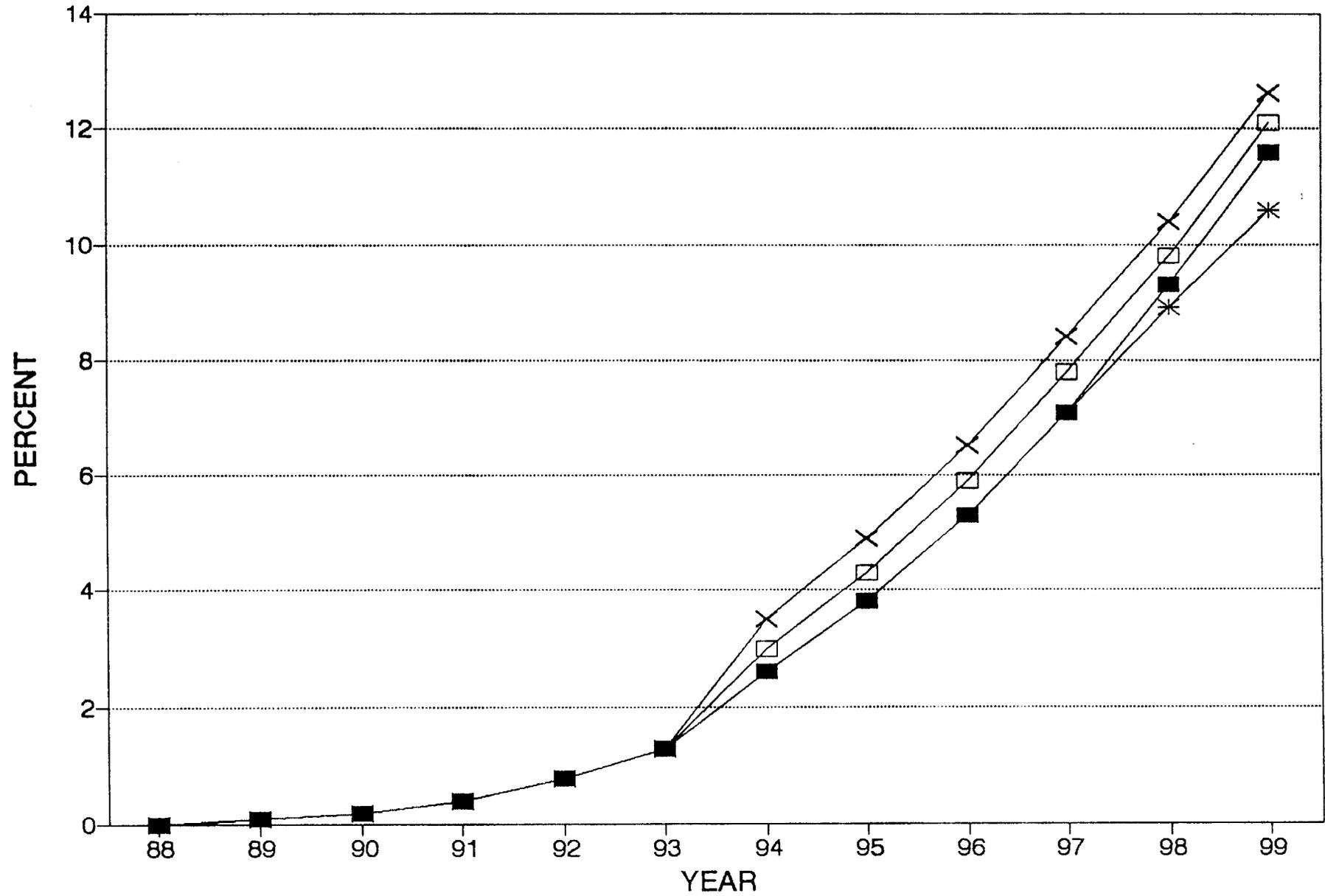
■ Peak94 * Trans stops □ Peak93 × Peak92

34

NEW DEATHS



CUMULATIVE DEATHS



HIV/AIDS Financial and Managerial Impacts
and
the Development of Coping Strategies

Directed by the Botswana Confederation of Commerce Industry
and Manpower (BOCCIM)

Sponsored by the US Agency for International Development and
the Botswana Private Enterprise Development Project (BPED)

Terms of Reference; May 17, 1994

RATIONALE

HIV/AIDS has become a national concern for many countries in Africa. While considerable effort is directed at preventing the further spread of the disease little attention has been focused on understanding the current and potential future financial impact of HIV/AIDS on private sector organizations and the development of a capacity for managers/business owners to manage the impact more effectively within business operations. Some of the ways in which HIV/AIDS impacts an organization can be measured by observing the costs related to absenteeism, turnover, recruitment, retraining, lost or impeded operations-process efficiencies, and employee benefits costs.

Within the context of the economic development process it is clear that HIV/AIDS has and will increasingly have a financial impact on business organizations. To prevent the HIV/AIDS epidemic from undermining improvements made to the enabling environment for private-sector led growth in Botswana and to more generally prepare coping strategies for the onset of what is considered to be an epidemic worse than that being experienced in Uganda and Kenya it is necessary that the effects of the epidemic on work organizations be investigated and responded to by the private sector.

Given that managers provide leadership to organizations their understanding of the impact of HIV/AIDS on business is critical. Just as managers need to be aware of the economic, trade and political environments in which they operate in order to make effective business decisions HIV/AIDS has created another dimension to the business operating environment that needs to be integrated into the management process. There are a number of financial issues that should be explored due to the presence of HIV/AIDS at the workplace as a first step to providing management with the skills required to successfully function in an HIV/AIDS crisis environment.

APPROACH

The study will have three major components: a financial impact component, a management impact component, and a training component which is a practical application of the management impact results.

I. Financial Impact

During the first phase of the financial-impact investigation the study team will attempt to develop a survey tool that will estimate current and projected costs to businesses in Botswana resulting from HIV/AIDS. Given the difficulty in securing figures as well as the degree to which the figures can be considered reliable the financial-impact component will include a pilot phase consisting of approximately one to two weeks of field work whose results will serve to finalize the approach and methodology. A five-year reference period will be used in collecting company data.

Financial-impact categories will be established based on the experience of similar studies in other countries. A list of probable impact indicators includes gender breakdown of employees, employee age, employee's permanent home, percentage of permanent and contract (ie: migrant) employees, classification of employee skill-levels (professional categories) medical insurance costs to the company (and any connections to professional-level of employees), pension costs to the company (and any connection to professional level), absenteeism in general, tracking of absenteeism by professional level, absenteeism resulting from attendance of funerals (and relation to professional level), costs of employee or employee-family funerals, training costs in general and training costs related to professional categories, costs of expatriate contracts and costs of position if localized, and recruitment costs.

Once a financial-impact list is established the consultants will interview approximately ten to twenty selected companies, using introductions made by relevant members of the reference group (so that access to data is not an issue) to determine if most companies, companies on an arbitrary basis, or certain categories of companies in Botswana (presumably based on size or sector) have record-keeping systems that include information from the impact list.

Current Costs

Based on the results of a pilot phase Option One or Option Two will be chosen by the reference group after presentation of a Pilot Report which will include recommendations from the consultants. If Option One is chosen, however, it will

include a determined number of more qualitative in-depth case studies.

Option One: Survey Tool used on Strategically-Designed BOCCIM Sample

A survey tool will be developed to be used on a strategically-designed BOCCIM sample. The sample will not attempt to provide data on the financial impact to "the private sector in Botswana" but will provide information based on a series of interviews that will take into account factors such as location, business sector, size, gender breakdown, and epidemiology. Data will be categorized where appropriate and trends and links within the sample will be developed but figures will not be processed to represent the entire private sector in Botswana. The study will maintain that results are no more than trends observed in particular companies and merely illustrative.

Given that larger organizations in Botswana are more likely than smaller ones to have detailed record-keeping systems the sample will focus on the major employers in Botswana including parastatal organizations and the mining sector. Experience in eastern, central and southern Africa has demonstrated that there is great difficulty in obtaining the quantitative information required for financial-impact type reports not merely because companies are hesitant to reveal such sensitive information but because detailed records are not kept, consequently the Botswana sample can not afford to ignore those organizations in which there exists the greatest chances of finding data. While BPED-sponsored activities carry certain boundaries these boundaries must not be constraints or obstructions to the proper implementation of the study. Reports and training material from the survey will be targeted at those audiences that BOCCIM chooses to select based on BPED criteria.

A strategically-selected sample would allow more in-depth investigations into selected companies and sample design would take account of access provided by members of the reference group.

A few selected companies from the sample might also be involved in the establishment of a workplace impact monitoring system which could be fed into an HIV/AIDS workplace organization (ie: the Ministry of Health's Occupational Health Unit/Business Responds to AIDS Office) that periodically reports on the progression of the disease in workplaces in Botswana.

Option Two: In-Depth Case Analyses

If it seems unlikely that most companies will have the quantitative information required for the survey then another approach to illustrate the impact to organizations will be used. A set of in-depth case studies will be developed from strategically selected organizations. The cases which will be chosen from various sectors; locations and business sizes will be used as examples from which to develop illustrative impact results. Although a fewer number of organizations will be surveyed the benefit of this approach is derived from the depth of analysis undertaken. Results will have to be more qualitative than quantitative. A few cases from outside Botswana may be developed as well to illustrate actual financial impacts on organizations in an environment where significant numbers of death from AIDS have been occurring for a longer period of time. Variables specific to Botswana will be worked into such cases as part of the exercise.

Projected Costs

Infection and mortality rates developed by health experts in Botswana will be used to estimate potential future costs to organizations over the next five years (the period over which HIV/AIDS projections have been made). Reporting will follow the same categorizations used in the sample, ie: location, sector, and size.

Another possible component to the cost projection (currently under investigation) would employ a productivity modelling technique that measures developed at the National Productivity Institute in South Africa.¹ This monitoring tool uses basic financial information about a company (such as that contained in an annual report) to set a baseline indicator of productivity. Selected variables are then changed, which in this case would be inputs affected by HIV/AIDS, to project the effects of the variables on productivity over time. Productivity modelling could be undertaken for selected organizations to illustrate effects to productivity based on projected impacts of HIV/AIDS.

¹ As described, a symptom of productivity is something that can be used to indicate, based on some baseline comparison, the degree to which an organization is improving or decreasing levels of productivity. This modelling would in no way attempt to measure actual productivity changes but would simply be attempting to attach financial measurements to the variables projected to be impacted exclusively by HIV/AIDS.

Pilot Phase

The unique nature of this activity and the difficulties involved in obtaining data require that the selected approach be tested before full-scale implementation is undertaken. Using the survey tool the consultants will select a cross-section of the sample on which to test the methodology. Once the results from the initial sample are obtained projections will be made. The feasibility of each step of the process will be evaluated and a pilot report will be produced. All potential issues, concerns and obstacles will be mentioned and evaluated as part of a recommendation made to the reference group to continue as designed, modify certain procedures, or completely rethink the approach to the project. Should there be no major issue(s) that impede the full-scale undertaking of the selected approach a final workplan will be submitted. A decision as to how the consultants should proceed will be made by the reference group after they have reviewed the pilot-phase/"inception" report. The final workplan, whatever the outcome, will be approved by the reference group before implementation.

II. Management Impact

The second component of the study will look to relate financial impact points to specific management functions. HIV/AIDS affects organizations across a range of departments involving employee benefits, safety and health, recruitment, training, labor relations, organizational development, technology and operations management, marketing, procurement and sales, and strategic planning and investment. This in addition to the fact that the pandemic involves a time dimension (with projections about future levels and rates of infection and mortality within the workforce) need to be accounted for as managers in a number of departments attempt to understand the issues and skills involved in minimizing the costs of the disease over time while at the same time conforming to local laws which are increasingly taking account of employees' rights and the treatment of people suffering from HIV/AIDS.

During the course of the field work current HIV/AIDS policies and programs will be documented and included in the management impact report.

III. Training

The study will then focus on the identification of opportunities that exist in Botswana for HIV/AIDS management training as well as the development of such a course including course materials. Training opportunities and course materials will be targeted to managers in Botswana but the extent to

which this material could be used within the region will be taken into consideration, ie: modularity or adaptability of the material to environments outside of Botswana in which BOCCIM may be able to expand its role.

OUTPUTS

-Financial impact report including charts and summaries based on BOCCIM-sample statistical analysis; or in-depth case studies including charts and summaries;

-Management impact report identifying the areas of management that are affected and the issues associated with each affected area that need to be integrated into and considered during the management process-- a listing and discussion of the coping strategies encountered in the course of the field work will be included as well as additional recommendations;

-Management training report identifying the opportunities and means by which such training can be conducted in Botswana as well as an outline of the course(s) and all related course material;

.the training report will include realistic recommendations for marketing HIV/AIDS management training

-Detailed course outline(s) along with course material;

-Recommendations for the structure of linkages/synergies between BOCCIM and National AIDS Control Program and Ministry of Health Occupational Health Unit.

Methodology

In order to assess and project the potential financial impact of HIV/AIDS on business organizations, the consultants will use a survey tool that measures specific areas of probable impact, gathering data over the past three to five years in categories, and then develop projections of these costs over the upcoming five years using HIV/AIDS infection statistics developed by the AIDS/STD Unit at the Ministry of Health. Although there will probably be few trends observed from the field research that can be attributed to HIV/AIDS, in certain instances, depending on sector, company size, sophistication, or locale, it may be possible to notice certain increases in expenditures in various categories over time. In other cases, while there may be no noticeable financial impacts, employers might have already started to develop policies in anticipation of the effects of HIV/AIDS. Even if few actual financial impacts are noticed, understanding companies' perceptions about HIV/AIDS and current coping strategies will be useful in the development of recommendations for management training and future coping strategies and the development of company policy. The list of categories to be formulated into Botswana questionnaire format is attached.

While HIV is an epidemic in Botswana, full-blown AIDS has not yet developed to epidemic levels; thus the consultants expect to find little financial information from companies that is directly attributable to AIDS. The fact that AIDS is not yet an epidemic, however, is one of the advantages of this study for Botswana. If the potential/projected impacts are taken seriously, there will be time for business to develop management coping strategies before the AIDS epidemic actually develops and has what is expected to be a detrimental impact on business operation/profitability.

Once financial data is obtained for impact areas, current, as well as three to five years past, projections will be made over a five-year period, corresponding to population infection and illness projections for the Gaborone area formulated by the AIDS/STD Unit at the Ministry of Health. The AIDS Unit, through its 1994 Sentinel Surveillance program has developed infection levels for the Gaborone area. Using the US Centers for Disease Control and the World Health Organization's EPI Model projecting system new, current and cumulative levels of HIV and AIDS infections (numbers as well as percentages of the Gaborone population aged 15-49) developed for the upcoming five years will be used to calculate potential costs to businesses. Current coping strategies as well as the management issues that are seen to be related to current and projected impacts will then be discussed with companies.

To attach a percentage and Pula figure to productivity impacts the services of the South Africa National Productivity Institute (NPI) will be contracted. NPI has developed productivity measuring techniques that link resource allocation decisions to productivity and profitability. NPI will conduct productivity analyses on approximately two to four companies which will provide the Pilot Report with a quantitative measure of the projected impact of HIV/AIDS on productivity. The purpose of such analysis will be to reinforce the statement "HIV/AIDS affects productivity" with concrete input/output illustrations. The results of Pilot productivity analysis will assist in determining whether to include such analysis in a possible full-scale survey.

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