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The impact of HIV/AIDS on social safety nets: what can the Caribbean expect? *

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"…AIDS… is not only claiming lives, it is changing the very nature of development. As one farmer in southern Africa put it: "Today, we are spending more time turning the bodies of the sick than we are turning the soil." " Wolfensohn (2000)

Introduction: HIV/AIDS as an issue

Introduction

In many ways mankind is at a defining moment in its history and this has come about because of a disease condition called HIV/AIDS. The truth is that the total number of persons living with HIV/AIDS now stands at more

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than an estimated 36.1 million. This reflects an increase of 2.5 million in the year 2000. A similar story holds in the case of the Caribbean where one source states that

> *"more new cases of HIV/AIDS were reported in the Caribbean between 1995 and 1998 than had been reported since the beginning of the epidemic in the early 1980s"* (World Bank 2000, vii).

This exponential spread of the disease also carries over to the rate at which it is claiming lives. For while it is estimated that in the first ten years of its run HIV/AIDS claimed 1.5 million lives worldwide, in the second ten years it is estimated to have caused more than 15 million deaths – ten times more than in the first decade. For our purposes it is interesting to note that although recent data presented in the *World Development Indicators 2001*, and by the UNAIDS (2000b), report a marginal decline in the number of new infections from 5.4 million in 1999 to 5.3 million in 2000, the same sources indicate that the number of persons dying from the pandemic over the same 2 year period, increased by a record 56.8 percent (World Bank Group 2001). In addition to the personal and family implications of those deaths, there are clearly social implications which must properly be the subject of public policy. For underlying the figures presented would be the story of the extent and nature of the deterioration of the economic and social fabrics of the societies that have been hardest hit. Herein lies the link to the potential impact of HIV/AIDS on social security.

As the Caribbean social security practitioners and policy-makers contemplate the strategic positioning of the social safety nets in an increasingly globalized environment, it will be important to have a clear understanding of HIV/AIDS - an understanding of what it has already done and what it threatens to continue doing in many parts of the world. This understanding must be complemented by a good grasp of the potential impact on this region and the nature of the requirements for substantially curbing the impact of the disease. Perhaps, of even more importance however, will be the need for consensus and collaboration at the regional level, on what the response of the social security systems should be. Indeed, the ILO, in recognition of the fact that no serious attempts have been made to study the impact of HIV/AIDS on social security, has indicated its intention to launch a project aimed at filling this gap.

The impact on social security: issues of viability and credibility

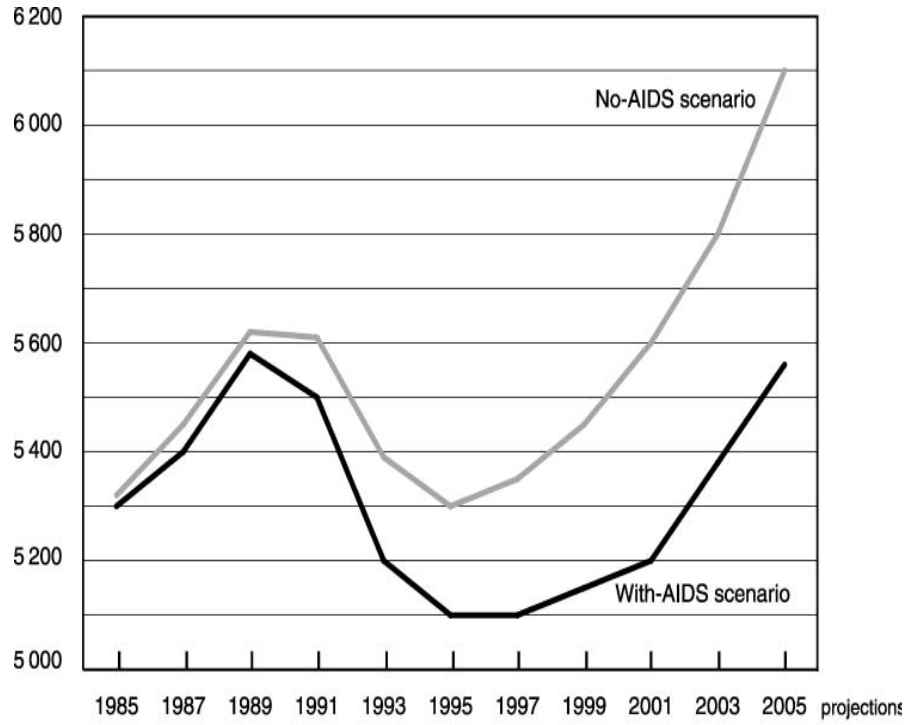
Contribution and Investment Income

In many ways, the social security system is in the *'future-protecting'* business. Since AIDS threatens the future of the society it must be an important concern to social security administrators. There is more than a small chance that AIDS can undermine the economic growth and undo the development in our countries(Madavo 2000; Theodore 2000). From a social safety net perspective, therefore, ***underlying the HIV/AIDS story of death and sickness is the story of the persistent erosion of the security base and/or viability platform***. The magnitude of the impact and the actual channel(s) through which the erosion takes place will depend on the location of the infected individual in the economy and his/her role within the household and/or community.

One obvious consequence of HIV/AIDS is the contraction of the contribution base. By causing a shrinkage in the number of employed persons and by weakening the income generation system the inflows to the social security system will necessarily decline. The truth is that because individuals operate within the labour market, contributing to national output, HIV/AIDS infection would signal an eventual deterioration in labour productivity as workers become sick and eventually withdraw from production.[1] One

source indicates that AIDS is costing the average African nation about half of one percent of per capita growth per year (Madavo 2000, World Bank 2001). Figure 1 shows the impact on per capita GDP in Kenya.

Figure 1
Estimated change in per capita GDP caused by AIDS, Kenya
Kenyan shillings (1985=100)

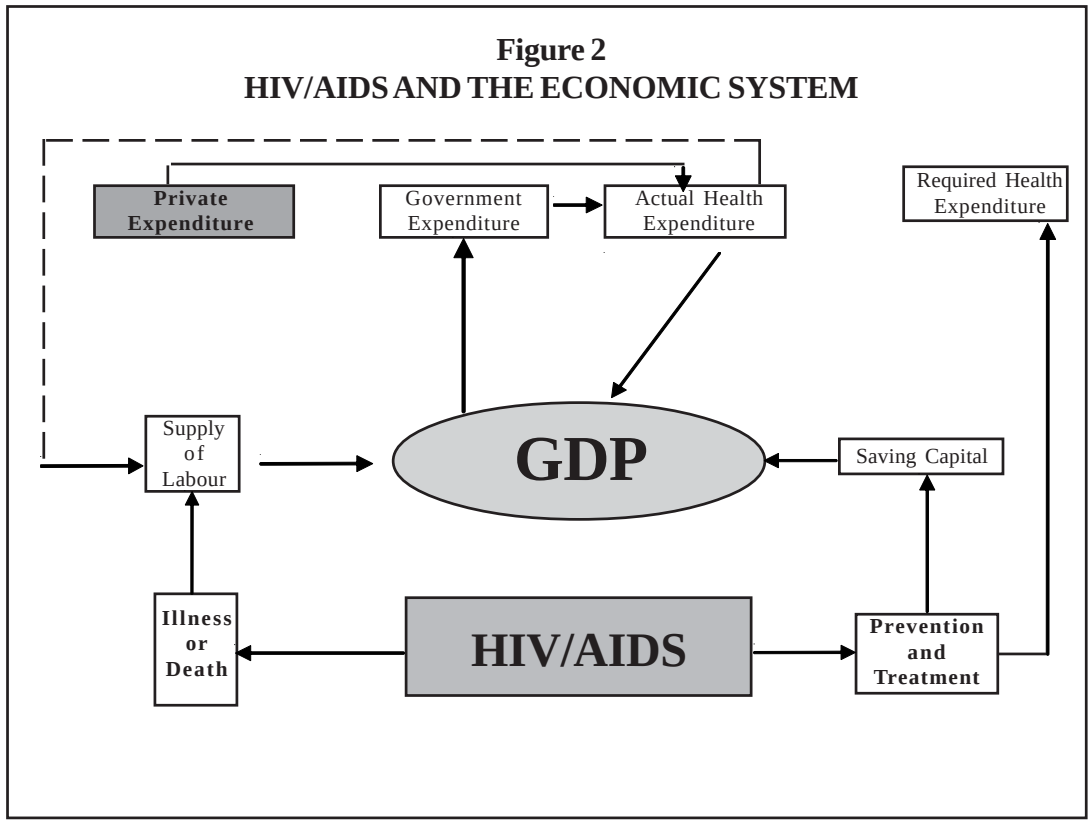


Source:http://www.unaids.org/publications/graphics/addis/sld022.htm

Underlying a result as in Figure 1 is an HIV/AIDS destruction mechanism as portrayed in Figure 2 below. In the case of the Caribbean UWI/ CAREC (1997) estimates show that by the year 2005 countries could expect to incur an economic loss equivalent to approximately 5% of their national incomes. At this rate national incomes in the region will be halved by the year 2020. The Table below summarizes the expected impacts for Jamaica and Trinidad and Tobago. All the key macro-economic variables appear with negative signs, with expenditure on AIDS showing the only positive movement. To put the projected impact on the national income in perspective, it must be recalled that the average national expense on health by countries in the region is just over 5% of the national income. So by itself HIV/ AIDS alone will cause a decline in output that is almost equal to what countries now spend on all their health needs. Comparing the expected loss with social security activity we find that the projected loss is almost five (5) times what average contribution incomes have been in this region!

Clearly if we are to expect at least a proportional decline in social security income – contribution and investment income – the outlook is not at all pleasant. Compounding this, however, is the fact that it is possible that with the expected phenomenal increase in short-term benefit payments the overall level of claims on the system will increase. Should this happen the resultant imbalances will present an awesome challenge for social security in the region.

Figure 2
HIV/AIDS AND THE ECONOMIC SYSTEM



The diagram shows HIV/AIDS having two direct effects: increasing the levels of illness and death in the society and causing an increased use of resources through prevention and treatment activities. These in turn respectively impact on the labour supply and on the level of savings. The combined effect is to set in train a reduction in the level of national income (GDP). This has corresponding negative impacts on public and private expense and therefore on the quality of life of the population. For the Social Security System the reduction in the labour supply, and by extension the level of employment, is bad enough. For the same mechanism that now imposes a higher level of claims, namely illness and death, is byself causing a reduction in the level of contribution income. Moreover, when compounded by a falling national income what we have is a threat to the very existence of the Social Security System. For not only will the income of contributors fall but the economy will not be in a position to boost the investment income on which the system will now depend more and more.

Tables 2 and 3 below indicate why we would expect benefit payments to increase even as the base of the system is weakened. According to the data presented in Table 2 below, more than 5 million persons, the majority of whom were adults, have become infected each year since 1997. Moreover, since 1997 we have had more than 30 million people living with the disease. Put differently, if we were to isolate the impact of HIV/AIDS by controlling other factors, we would expect to observe a weakening in the productivity of labour each and every year since 1997. Moreover, to the extent that one could categorize the bulk of HIV/AIDS care and treatment in the developing world as falling into the group of activities in the health industry that are more accurately considered a consumption rather than as an investment [in health/human capital], this would mean that resources have been diverted away from investment and regeneration activities into consumption (Theodore 2000).

Table 1
Derived Macro economic Impact on Key Variables for Trinidad & Tobago and Jamaica

Impact Variables	Trinidad & Tobago	Jamaica	Average
Gross Domestic Product Savings	-4.2% -10.3%	-6.4% -23.5%	-5.3% -16.9%
Investment	-15.6%	-17.4%	-16.5%
Employment in Agriculture	-3.5%	-5.2%	-4.4%
Employment in Manufacturing	-4.6%	-4.1%	-4.4%
Employment in Services	-6.7%	-8.2%	-7.5%
Labour Supply	-5.2%	-7.3%	-6.3%
HIV/AIDS Expenditure	+25.2%	+35.4%	+30.3%

Source: *CAREC/UWI. Modelling and Projecting HIV and its Impact in the Caribbean: The Experience of Trinidad & Tobago and Jamaica. 1997*

The stark realities are highlighted when we consider the case of some of the French speaking sub Saharan nations where benefit payment obligations have increased at a much faster rate than contributions.

Although the sub Saharan countries typically have relatively young populations, as Barbon and Sanchez (1999) points out, the ratio of beneficiaries to contributors has increased drastically. Overall, this ratio increased from 8.8 percent to 16 percent over the 1991 to 1996 period in Cameroon and from 9.7 percent to 31.25

Table 2
Selected Indicators of Death, Sickness & Disability Associated with HIV/AIDS: 1996 – 2000 (End of Period Estimates)

INDICATORS	1996	1997	1998	1999	2000
People Newly Infected (millions)	3.1	5.8	5.8		5.3
Adults (millions)	2.7	5.2	5.2		4.7
Women		2.1	2.1		2.2
Men			3.1		2.5
Children <15 years	400,000	590,000	590,000		600,000
Number of People Living with HIV/AIDS (millions)	22.6	30.6	33.4	34.3	36.1
Adults (millions)	21.8	29.5	32.2	33.0	34.7
Women	9.2	12.1	13.8	15.7	16.4
Men	12.6	17.4	18.4		18.3
Children <15 years (million)	830,000	1.1	1.2	1.3	1.4
AIDS Deaths	1.5	2.3	2.5	2.8	3
Adults (millions)	1.1	1.8	2		2.5
Women	470,000	820,000	900000		1.3
Men	650,000	980,000	1.1		1.2
Children <15 years (million)	350,000	460,000	510,000		500,000
Cumulative Deaths since Beginning of Epidemic	6.4	11.7	13.9	18.8	21.8
Adults (millions)	5.0	9.0	10.7		17.5
Women	2.1	4.0	4.7		9
Men	2.9	5.0	6		8.5
Children <15 years (million)	1.4	2.7	3.2		4.3

Source: *UNAIDS 1998; 2000b.*

percent from 1990 to 1997 in the public sector. Moreover, whereas beneficiaries in Côte d'Ivoire increased by approximately 7.9 percent during the last decade, there were no increases in the number of contributors (Barbon and Sanchez 1999). This is the silent story of the social security HIV/AIDS experience, that is embedded within the data (refer to Tables 1 and 2) on the number of persons who are falling ill each and every year and who continue to be ill for a number of years thereby requiring sickness benefits.

Table 3
Estimates of Selected Demographic Indicators of Impact of HIV/AIDS on the Social Security Base

Country	2000				1995-2000	
	Infant Mortality Rate		Crude Death Rate		Life Expectancy	
	W	WO	W	WO	W	WO
Bahamas, The	17	12	7	4	69	73
Benin	91	88	15	13	54	55
Botswana	62	28	22	5	44	68
Brazil	38	34	9	6	67	68
Cameroon	71	65	12	9	50	56
Cote d' Ivoire	95	83	17	10	48	57
Rwanda	120	106	21	12	39	49
Togo	72	66	11	8	51	57

Source: *US Census Bureau, World Health Organization, 2001. United Nations Population Division.*

Increased costs due to ill health

The Côte d'Ivoire and Ethiopian experiences further highlight the potential impact of HIV/AIDS on social security systems. Just eight years after the first reported case of HIV/AIDS and at a time when the impact of the disease in the workplace was just beginning to be felt, the disease was estimated to have cost four businesses in Abidjan between US$ 1.8 million to US$3.7 million in medical costs (UNAIDS 2000b). By 1997, the disease accounted for 0.8 percent to 3.2 percent of the wage bill in Abidjan (UNAIDS 2000b). Data from a survey of five firms in the United Republic of Tanzania suggested that the average medical cost per employee that was attributed to HIV/AIDS, more than tripled between 1993-1997 (UNAIDS 2000b).

If a similar medical cost impact can be expected in the Caribbean the expected wage bill impact on Barbados will be in excess of US$ 4 million and in St. Vincent it will be almost US$ 3 million. These are not insignificant figures.

However, beyond the medical cost impact, what of the impact on social security benefit payments? The fact is that social security schemes have traditionally provided coverage for events related to loss of or reductions in income. In the Caribbean this coverage is largely dominated by events related to illness, death (including benefits for survivors of members), disability and old age. Given the nature of the impact of HIV/AIDS, it is to be expected that infected social security members and their affected dependents, will be making increasing demands on all of these benefit branches. As the experience of the African nations has shown, on the benefit side, HIV/AIDS is likely to exert increased demands on payment obligations thus driving up the required total expenditure of the social security (UNAIDS 2000b).

In other words, given that HIV/AIDS is a chronic disease and that afflicted individuals are vulnerable to opportunistic diseases, it is reasonable to expect that the level of absenteeism due to ill-health would increase. In the case of Caribbean social insurance schemes, this would mean increases in the volume and value of short-term benefit payments – in particular, sickness benefits. In those cases in which some version of social insurance provides medical benefits, for example St. Vincent and the Grenadines, Antigua-Barbuda, decisions will have to be made about the content of the benefit coverage. The fact is that once contributors become infected the social security benefit meter starts running and if the pattern follows that of the rest of the developing world, the meter is unlikely to stop running prior to death of the individual and will continue to run even after death.[2]

Certainly, in the absence of a reversal of the epidemiological trend of HIV/ADIS, one would expect almost all the social safety nets to be hit with a double-shock: (i) on the benefit side; and (ii) on the income side. What emerges from the above discussion therefore is the preparedness of the social security system in the region to deal with a crisis or shock of this nature. In assessing the issues facing social security in Sub-Saharan Africa, the point was made that *"…often business as usual is not the best option and new institutional setups must be found. The aim at the end is to protect the rights of the beneficiaries by providing better services… and contributing to overall development by carefully considering the links with the rest of the economy."* [Barnon and Sanchez (1999: 3)]

Increased costs due to death

Infected Individuals

When evaluated at the global level, life expectancy increased slightly – by approximately one year - between 1990 to 1999 (World Bank Group 2001). Upon further examination however, we note that 50% of Sub Saharan African countries suffered declines in life expectancy.

Given that HIV/AIDS is a terminal disease, and that the social security schemes in the region provide funeral benefits/grants, the value of these claims will increase as the prevalence rate increases. This is not unexpected, and is supported by the experience of other countries facing the disease. In the United Republic of Tanzania, for example, the experience of five firms showed that burial costs increased five-fold between 1993 and 1997. (UNAIDS 2000b)

Table 4 below suggests why this is not a surprising result. For each of the twenty-two (22) countries listed the projections for the period up to 2015 show that life expectancy is expected to decline in the face of adult HIV prevalence rates which range between just under 2 ½ percent in Benin and 25 ¼ percent in Swaziland. In fact the correlations linking HIV prevalence to the change in projected life expectancy for the periods in the Table are all very high – 0.81 for 1995-2000, 0.98 for 2000-2005 and 0.89 for 2010-2015 - reflecting a strong association between the variables. With HIV/AIDS mainly claiming the lives of those between the ages of 15 and 44 in the Caribbean we can expect a similar reduction in life expectancy and a corresponding increase in funeral grant claims.

Table 4
Expectation of life at birth (years)

Country	Adult Prevalence Rate %*	1995-2000		2000-2005		2010-2015	
		With AIDS	Without AIDS	With AIDS	Without AIDS	With AIDS	Without AIDS
Bahamas	4.13	69.1	72.8	69.4	73.7	72.7	76.7
Benin	2.45	53.5	55.0	54.0	57.0	56.0	61.0
Botswana	35.8	44.4	67.6	36.1	69.7	43.0	73.0
Burundi	11.32	40.6	49.6	40.6	51.6	44.9	55.5
Cameroon	7.73	50.0	56.2	50.0	58.6	52.9	63.7
Congo	6.43	50.9	56.9	51.6	58.9	55.7	63.0
Côte d'Ivoire	10.76	47.7	56.6	47.9	58.6	52.4	62.7
Djibouti	11.75	45.5	50.5	40.6	52.4	38.0	56.5
Dominican Republic	2.80	67.3	68.2	66.9	69.6	66.1	71.9
Ghana	3.60	56.3	60.0	57.2	62.0	61.5	66.0
Guyana	3.01	63.7	65.4	62.4	66.8	61.6	70.8
Haiti	5.17	52.0	57.1	53.3	59.0	57.8	63.0
Kenya	13.95	52.2	63.6	49.3	65.9	51.5	69.8
Lesotho	23.57	51.2	61.4	40.2	63.7	37.8	67.9
Malawi	15.96	40.7	51.2	39.3	53.2	43.1	57.3
Namibia	19.54	45.1	62.1	44.3	64.5	53.6	68.6
Nigeria	5.06	51.3	55.6	52.1	58.1	55.9	63.1
South Africa	19.94	56.7	63.3	47.4	65.8	42.0	69.6
Swaziland	25.25	50.8	60.2	38.1	62.7	39.2	67.2
Uganda	8.30	41.9	52.0	46.0	54.2	54.3	58.3
Zambia	19.95	40.5	57.6	42.2	59.6	52.1	63.6
Zimbabwe	25.06	42.9	66.5	42.9	68.5	50.2	71.4

* Refers to the proportion of adults 15 to 49 years of age who are living with HIV/AIDS at the end of 1999
Source: *United Nations Population Division*

Survivors

As suggested earlier, the social security expenses associated with the death of a contributor usually do not cease when the death occurs. In the presence of HIV/AIDS the reality is that with mothers and fathers succumbing to the disease the population of orphans is on the increase. It is true that the impact may vary depending on the socioeconomic position of the families affected by the disease. For example, information emerging from the United Republic of Tanzania suggests that the elderly who live in households affected by AIDS and children who are orphaned as a result of AIDS, are no worse off than their non-HIV/AIDS contemporaries (UNAIDS 2000b). However, the evidence from Namibia paints a different story. Here we see that orphans are in dire straits. In the rural areas, orphans who are barely able to care for themselves are often now expected to care for their siblings as well as whatever livestock that their parents or guardians have left behind.

In these circumstances the social security system would be expected to play a role in alleviating the hardship created by the disease. There will be issues of accommodation, caring, schooling and health needs of the orphan population. While the social security system will not be expected to look after all these needs they will certainly be expected to make a significant contribution.

Rethinking the role of social security

In his many comments on social security reform in Latin America Mesa Lago has pointed to the need for these systems to rethink their role with a view to extending beyond the provision of retirement benefits. The point is made that social security systems need to get more involved in securing the living standards of contributors even before retirement. What HIV/AIDS has now done is to put this issue squarely on the table for Caribbean social security systems. The fact is that with more contributors dying before retirement age the social value of the social security system will shift to the pre-retirement living conditions of contributors and their dependants. It cannot make sense for any branch of social security, including social insurance, to play the part of the disinterested observer while its contributors are being decimated and while the very foundations of its members' security are being eroded. ***What this means first and foremost is that social security systems in the Caribbean must now determine the level of their involvement in the battle against HIV/AIDS.*** This brings us to the very important question of the way forward for social security systems in the Caribbean.

Conclusion: what can the social security systems do?

In many ways, HIV/AIDS has once again raised the vexing question of: how does a nation protect its most economically vulnerable members at those times when the nation itself is vulnerable. It also suggests that economies are perhaps as strong as their weakest members and as such, highlights the need for responsible governments to consistently target the most vulnerable members with the expressed aim of improving their standard of living (Lewis 1954).

The Health Economics Unit is proposing a five-point strategy for the social security systems in the region. The strategy derives from the attempt to answer two basic questions:

a) What is the fundamental role of the social security system?

b) What are the key factors which determine the viability of the social security system?

The HEU takes the position that the answer to the first question is linked to the Arthur Lewis concern about the living conditions of the most vulnerable in the society and that the answer to

the second question points us to the economic environment and the administration of social security systems.

In this context the ***five-point strategy*** for the Caribbean social security systems today consists of the following:

1. Deepening its understanding of the HIV/AIDS epidemic in a manner which would facilitate the involvement of the social security schemes in the prevention and care programme which is now being put together in the region.

2. Involvement in advocating for availability of drugs to the infected. As was previously stated, it is noteworthy that in some jurisdictions the availability of relatively effective treatments has now triggered discussions about return-to-work issues for persons who had previously been on disability benefits.

3. Speeding up the process of harmonization for improved mobility of pensions. With labour markets being affected there will be a need for the greater movement of skilled workers throughout the region.

4. Adopting a planning process that is truly strategic to ensure that appropriate projections of HIV/AIDS and the impact of the pandemic on the Social Security Systems is taken into consideration including being factored into actuarial analyses. A word of caution here would be the critical need to ensure that projections of growth in HIV/AIDS are done using appropriate epidemiological models that generate rigorous estimates on the incidence of the disease.

5. Investing in improved social security administration with three specific objectives:

   i) **Maximising real investment returns**, since investment income will need to increasingly become the major source of social security earnings, and this at a time when economic conditions may not be favourable;

   ii) ***Maximising the coverage of the system****, since this is the only means by which the social security system will counteract the inequities that will become even more pronounced in the presence of HIV/AIDS; and*

   iii) ***Maximising the compliance rate****, since the institutional weakening that is likely to come with the spread of HIV/AIDS must be met with an explicit countervailing force*

The bottom line here is that at this crucial point in the history of this region, the social security systems must see themselves as having the potential to make a difference. The link between these systems and the national income should not be in question. Simple regressions linking national income to contribution income for the four larger countries have all yielded positive coefficients. The dependence of the social security system on the economy should not be in question. However, in the face of HIV/AIDS it is even more important to emphasize the influence that the social security system can have on the economic system. Given the size of the asset base and given the population reach of the social security system it is without doubt one of the strong socioeconomic pillars of the Caribbean region. What the proposed five-point strategy proclaims is that any posture of business as usual will be tantamount to a death-wish for this region of ours. This is not a responsibility I believe the social security system would like to bear. This is a time for confidence in our ability to save ourselves and a time to act in our very best interest. And may God help us!

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1. Assuming a context of limited access to health-enhancing, HIV/AIDS treatment.

2. It is noteworthy that in some jurisdictions the availability of relatively effective treatments have now triggered discussions about return-to-work issues for persons who had previously been on disability benefits. For examples of potential issues, refer to *Return to Work Issues for Persons Living with HIV and AIDS: A Health and Medical Checklist* and *Return to Work Issues for Persons Living with HIV and AIDS: A Self Assessment Tool.*

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