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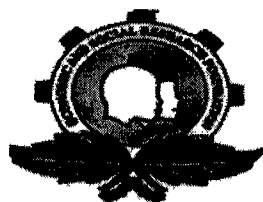
(ESRF)

From Impact to Meeting Mitigating Challenges in Care and Support of HIV/AIDS in Tanzania: What Can Research Contribute?

By

Dr. Phares Mujinja

&

Dr. Flora Kessy

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From Impact to Meeting Mitigating Challenges in Care and Support of HIV/AIDS in Tanzania: What Can Research ontribute?

From Impact to Meeting Mitigating Challenges in Care and Support of HIV/AIDS in Tanzania: What Can Research Contribute?[1]

By Dr Phares Mujinja[2] and Dr Flora Kessy[3]

1.0   BACKGROUND

In the early years of the pandemic, Human Immunodeficiency Virus/Acquired Immunity Deficiency Syndrome (HIV/AIDS) was registered almost exclusively as a medical problem. Since then, as the scale of the human tragedy has become clear, particularly in most affected countries, it has become evident that HIV/AIDS is a major development problem that is threatening to reverse the generation of achievements in human development. In regions like Africa that are already facing enormous problems of poverty and political instability, its social and economic consequences are profound. Much has been learned about the pandemic and how it should be addressed and in particular that AIDS prevention and cure are complex issues requiring a multi-sectoral approach.

Efforts to combat the scourge have resulted to declining prevalence rates in some countries in Sub-Saharan Africa, Uganda been the most cited country (the prevalence rate was as high as 30% in the 1990s but it had dropped to 6% currently). Prevalence rates in Tanzania are also showing declining trend in the recent past. This is a result of relentless efforts by the government and non-state actors to combat the spread of the virus. This paper highlights the prevalence trends over time, the documented impacts, and efforts to combat the scourge in particular mitigating the impact through ARV provision.

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2.0   HIV/AIDS PREVALENCE RATES

2.1   The Global Picture

Recent estimates indicate that 39.4 (35.9 - 44.3) million people were living with HIV/AIDS by the end of 2004, of whom 37.2 (33.8 - 41.7) million are in their most productive years, that is between the ages of 15 and 49, while 2.2 (2.0 - 2.6) million are children aged 15 years and younger (UNAIDS, 2004). This is a decline from 42 million in 2002. In year 2004 alone, 4.9 (4.3 - 6.4) million people (640,000 [570,000 - 750,000] children) became infected with HIV and 3.1 (2.8 – 3.5) million individuals died of AIDS (Table 1)[4].

Table 1: The AIDS Pandemic at the End of 2004

People newly infected with HIV in 2004	Total	4.9 (4.3 - 6.4) million
	Adults	4.3 (3.7 - 5.7) million
	Children under 15 years	640,000 (570,000 - 750,000)
Number of people living with HIV/AIDS in 2004	Total	39.4 (35.9 - 44.3) million
	Adults	37.2 (33.8 - 41.7) million
	Children under 15 years	3.2 (2.0 - 2.6) million
AIDS deaths in 2004	Total	3.1 (2.8 - 3.5) million
	Adults	2.6 (2.3 - 2.9) million
	Children under 15 years	510,000 (460,000 - 600,000)

Source: UNAIDS, (2004)

2.2   Surveillance of AIDS Cases in Tanzania[5]

There are three methods used to collect HIV/AIDS data in Tanzania. These are reports, from hospitals or symptomatic cases, reports from blood donors surveillance, and reports from Antenatal Clinic Attendee (ACA) surveillance[6].

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[4]   The ranges around the estimates in Table 1 define the boundaries within which the actual numbers lie, based on the best available information.
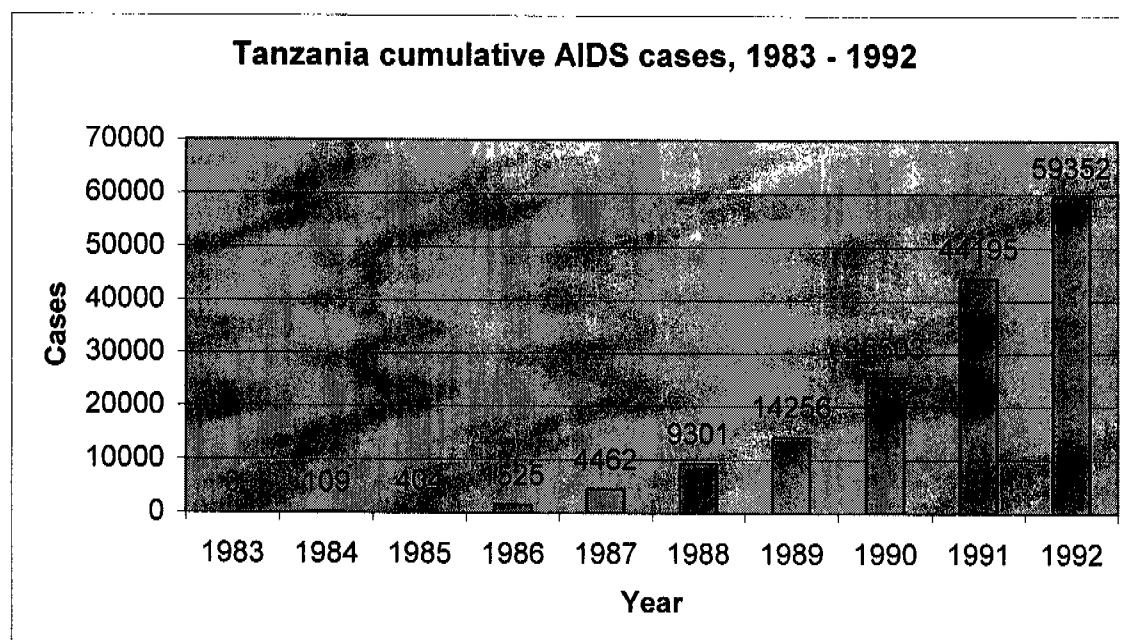
[5]   Information presented in this section is heavily drawn from the National AIDS Control Program: HIV/AIDS/STI Surveillance Report Number 18, (URT, 2004).

[6]   A population based survey of HIV cases have been done and analysis of the data is underway.

2.3 Distribution of AIDS from Symptomatic Cases

For the year 2003, a total of 18,929 cases were reported to the NACP from the 21 regions of Tanzania mainland. This resulted into cumulative total of 176, 102 cases since 1983 when the first AIDS cases were diagnosed in Tanzania. Regional differences in AIDS cases are apparent. It is worth noting however that the distribution of AIDS cases by region is based on where the diagnosis was made and does not necessarily reflect the place of usual residence of the diagnosed case. In addition, NACP estimates that only 1 out of 5 AIDS cases are reported due to underutilization of health services, under-diagnosis, under-reporting and delays in reporting. Despite these limitations however, the data is believed to reflect the trend of AIDS cases in the country. According to the 2003 data, the region with the highest cumulative case rate was Mbeya (32,705/100,000) followed by Dar es Salaam (26,818/100,000) and Ruvuma (12,034/100,000)[7]. Figures 1a and 1b show the trend in AIDS cases from the time when the disease was diagnosed in this country for the first time. The cumulative cases were increasing at an increasing rate from 1989 to 1992, but from 1993 onwards the cumulative cases started to increase at a decreasing rate.
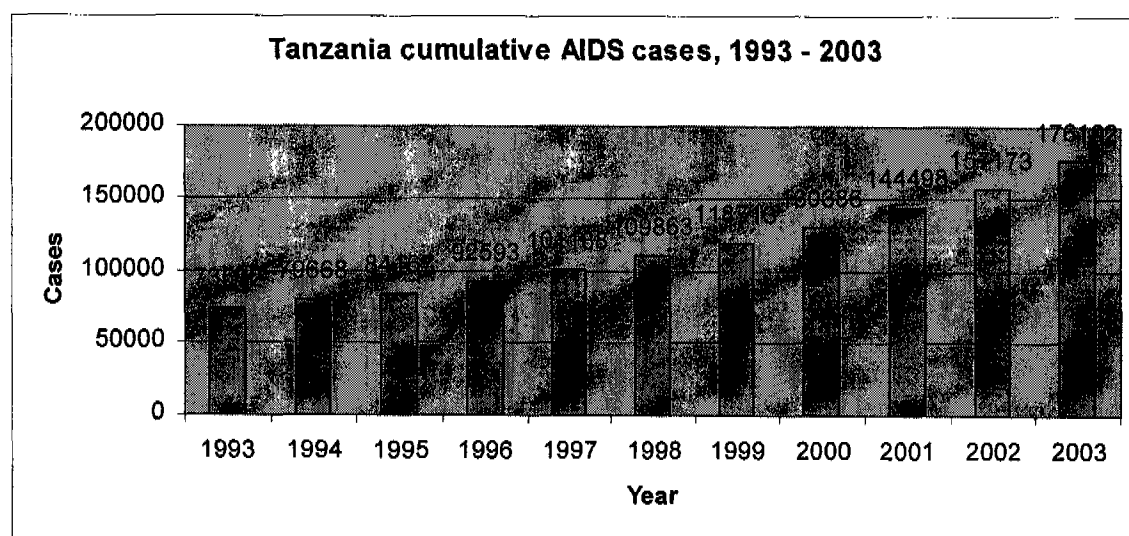
Figure 1 (a): Cumulative AIDS Cases, 1983-1992

Source: URT, (2004)

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[7] Case Rate = Cases/100,000 population

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Figure 1 (b): Cumulative AIDS Cases, 1933-2003

Tanzania cumulative AIDS cases, 1993 - 2003

Source: URT, (2004)

2.4   Prevalence of HIV Infection Among Blood Donors

The overall prevalence of HIV infection among blood donors during 2001 was 11.1% followed by 9.7 in 2002, and 8.8% in 2003. Table 2 shows the prevalence of HIV infection among blood donors by region for the past 5 years.

Table 2: Prevalence of HIV Infection Among Blood Donors by Region, 1999-2003

Region	Prevalence Rate				
	1999	2000	2001	2002	2003
Arusha	22.0	13.8	17.8	-	11.1
Manyara	-	-	-	-	12.0
Coast	8.9	12.5	10.4	9.6	7.0
Dar es Salaam	33.1	8.6	18.8	12.0	10.0
Dodoma	5.1	3.9	7.9	7.6	7.0
Iringa	14.7	14.6	18.7	14.8	15.4
Kagera	*17.7*	*19.5*	*22.0*	*18.0*	*20.7R*
Kigoma	6.4	3.8	4.9	3.2	3.2
Kilimanjaro	4.8	6.7	5.9	6.8	4.8
Lindi	3.4	4.2	3.8	3.6	3.8
Mara	9.2	9.4	9.0	10.3	7.8
Mbeya	*15.2*	*17.0*	*16.4*	*12.7*	*14.8R*
Morogoro	11.3	16.6	17.2	8.6	8.3
Mtwara	7.8	8.2	7.5	6.8	6.5
Mwanza	7.0	7.6	8.0	7.7	8.7
Rukwa	-	11.8	10.7	9.8	17.9
Ruvuma	9.8	10.2	11.2	10.9	10.3
Shinyanga	8.2	9.4	8.4	8.3	7.0
Singida	8.1	8.0	11.8	10.9	7.6
Tabora	7.1	7.2	7.6	6.6	8.4
Tanga	8.3	8.8	8.6	9.8	7.4
Tanzania	-	9.9	11.1	9.7	8.8

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Contrary to 1999-2000 where prevalence was increasing, in 2001-2003 about 11 regions experienced declining trend. However, there is a reversal in regions like Mbeya, and Kagera between 2002-2003. The declining trend is a new hopeful sign that the epidemic could be eventually brought under control. Positive trends seem to be taking hold among people in a number of countries. In South Africa, for instance, for pregnant women under 20, HIV prevalence rates fell to 15.4 percent in 2001 (down from 21 percent in 1998). This suggests that awareness campaigns and preventions programs are bearing fruits.

Uganda continues to present proof that the epidemic does yield to human interventions. Recent HIV infections appear to be on the decline in several parts of the country as shown by the steady drop in HIV prevalence among 15-19 year old pregnant women. Trends in behavioral indicators are in line with the apparent decline in HIV incidence. Condom use by single women aged 15-24 almost doubled between 1995 and 2000/2001, and more women in that age group delayed sexual intercourse or practiced abstinence.

The challenge is how to sustain low prevalence rates, that is, keep safe people safe, and at the same time decrease the current prevalence rates in high prevalence regions. In addition, there is a need to make sure that for the regions where there are sign that infection rates are going down, the reversal is not experienced. This underscores the need to establish more VCT facilities and strengthen their utilization, and also continue with initiatives intended to enhance antiretroviral access and proper case management.

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3.0 ROLE OF RESEARCH IN TANZANIA: FROM INITIAL STAGE OF THE EPIDEMIC TO MEASURING AND MITIGATING THE IMPACT

Five main critical thematic areas have been identified by TACAIDS in the National Multisectoral Strategic Framework on HIV/AIDS (2003-2004) to prevent the spread of HIV, and consequently mitigate the impact of HIV/AIDS on the infected and the affected individuals and communities. These critical thematic areas are Crosscutting issues; Enabling environment; Prevention; Care and support; and Impact mitigation (URT, 2003). Although mitigation of impact is mentioned as a separate thematic area, other themes that have been mentioned above, in one way or another, are aimed at mitigating the impact of HIV/AIDS.

A clear and concise care and support plan is a product of scientifically sound research results. It is not well known how local research has contributed to the development of the care, support and treatment plans. The care, treatment and support plans are to be implemented in the whole country, which raises a number of questions: are the plans scalable with the resources available? Is there an effective patient monitoring system? What are the technical, human and financial resources that are needed to implement the plans? What is the capacity of the health sector to absorb and utilize resources to be made available for the intervention, if any? Is the health system, supported by other sectors to be able to face the challenges of implementing the plans considering the potential demand available? These questions have not been clearly explored in local research.

Most of the researches that have been conducted in Tanzania on HIV/AIDS have focused on understanding the dynamics of the virus and determinants of the disease. Therefore, focus of these studies has mainly been on the virology, epidemiology of the disease, socio-economic impact, behavioral change and communication. All these are aimed at characterizing the virus, the disease and its impacts. However, care, support and treatment are aimed at taking care of the impact, which has also been identified by most of these studies. Understanding of "the after impact" is important for making the care, support and treatment a success in mitigating the biological and socio-economic impact of HI/AIDS.

Notwithstanding this, several studies have been instrumental in establishing the baseline for current and future care, treatment and supportive interventions; projecting the impacts and resources needed to scale up the responses; designing preventive campaigns against the HIV/AIDS; and development of ARVs and treatment plan for individuals at different levels of disease progression. Research findings could be grouped into two: studies which characterized the understanding of virus and disease and its epidemiological and social patterns, and those that have critically analyzed the levels of the impact of HIV/AIDS and measuring the levels of

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impact and subsequent interventions. The following have been the main focus of these researches:

3.1 Studies on Prevalence and Behavioral Change

- Prevalence of the disease (Killewo et al., 1989; Mhalu et al., 1991; Pallangyo et al., 1991; Henri et al., 1995; Pallangyo et al., 1998; Bakari et al., 2000; Senkoro et al., 2000 etc)

- Incidence of the disease (Killewo et al., 1989; Boerma et al., 1998; Bakari et al., 2000 etc)

- Risk factors, knowledge, practice and behavior change (Lwihula et al., 1994; Barongo et al., 1991; Ngomuo et al., 1995; Mgalla and Pool., 1997; Mbonde et al., 1998; Laukamn-Josten et al., 2000 etc)

- Social, economic, cultural factors (Mwizarubi et al., 1991; Lwihula et al., 1994; Over et al., 1994; Ainsworth et al., 1994; Mujinja, 2000 etc)

3.2 Studies on Social and Economic Impacts

Agriculture and Food Security

- A woman with a sick husband was found to spend 60% less time on agricultural activities than she would normally do (Isaksen, et al., 2002).

- Food consumption has been found to drop by 41 percent in families hit by AIDS related diseases (Isaksen et al., 2002).

- In Kagera, AIDS deaths led to general consumption drop of 32% and food consumption drop of 15% among the poor (Lundberg et el., 2000).

- Tibaijuka (1997) reports that in Kagera region virtually all households' cash income was used to pay for medical bills due to AIDS. Households had to sell assets or borrow funds to cope with the increased expenditure.

- Using regression analysis, HIV/AIDS related variables were found to have negative impact on food availability. These variables include hours spent on attending funerals and hours spent on taking care or visiting HIV/AIDS ill person (ESRF, 2004a)

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- Reducing the hours spent on taking care and visiting individuals living with HIV/AIDS from 50 hours to zero hours, and hours used on attending funerals were found to result to increased agricultural productivity by 15%, and 19% respectively (ESRF, 2004b).

The Health Sector

- Earlier study in Tanzania shows that in 1993 the average cost incurred per adult AIDS patient over the duration of the patient's illness was approximately TShs 50,000. For the children the annual figure was TShs 34,000 (World Bank, 1993).

- Another study indicated that the cost of treating an adult with AIDS in Tanzania is $295, while the cost of treating a child with AIDS is $190 (Forsythe, 2002).

- Clinicians were found to spend about 12.5 minutes on average per regular patient. An extra 19 minutes on average is added if they are attending to an AIDS patient (ESRF, 2002).

- Some studies in urban areas have found about 50% of hospital beds to be occupied by individuals suffering from HIV/AIDS opportunistic infections.

- Trained personnel have been deceased—the mean years of service of deceased ranged from 7 to 18 years.

- About 26 percent of the sick employees in the surveyed health facilities were granted a paid sick leave in 2001. The average duration of sick leave was 3.6 months with a range of 1-9 months (ESRF, 2003).

Education Sector

- More than 10 teachers are reported to die annually from the highly affected districts (Forsythe, 2002).

- It is estimated that infected teacher and education officer will loose 6 months of professional time before developing full-blown AIDS and then an additional 12 months after developing full-blown AIDS (Isaksen et al., 2002).

- Data on years of experience for teachers who died show the average years of experience to be 15 with a minimum of 2 years and a maximum of 27 years (ESRF, 2003).

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- Recruited teachers to replace the deceased were found to have less work experience with an average of 3 years of experience (ESRF, 2003).

Industry/Enterprises

- Companies/industries lost employees with between 2 years to 29 years of experience with an average of 6 years in 2001 (ESRF, 2003).

- The companies surveyed had an average of 6 employees on paid sick leave and companies lost a range of 60 to 1530 man-days with an average of 598 man-days per company in 2002 (ESRF, 2003).

- Companies surveyed spent an average of 1.8 million TShs for funeral of employees with a range of 60,000 to 4.6 million in year 2002 (ESRF, 2003).

Macroeconomic Impacts

- Per capita GDP in Tanzania is estimated to be up to 10% smaller in 2010 because of the pandemic (Cuddington, 1993).

- It is estimated that 22% of the health budget would be spent on HIV/AIDS related patients by 2015 if the current situation prevails (ESRF, 2003).

- About 50 percent of hospital beds will be occupied by HIV/AIDS patients in year 2015 (ESRF, 2003).

- The economy would be 8.3 percent smaller in 2015 and per capital GDP would be about 4 percent lower in 2015 due to the HIV pandemic (ESRF, 2003).

Social Impacts

- Social impacts include overstretched social networks due to AIDS epidemic, increased number of orphans which results to increased burden to elderly, increased stigma and discrimination of HIV/AIDS orphans and individuals living with HIV/AIDS, formation of childe headed households; disruption of social and marital relationships etc.

4.0   NEEDS AND CHALLENGES OF TREATMENT OF PLWHAS WITH ARVS

4.1   What are the Needs of PLWHAs

Tanzania is estimated to have more than two million people living with the virus and the disease (MoH, 2004). Needs of PLWHAs are diverse depending on the stage and progression of the diseases, age, gender and geographical area, to mention some. These needs also range from psychological care and treatment to physical care and treatment. The main categories of their needs could be categorized as:

> - Voluntary Counseling and Testing (VCT)
> - Psychosocial Support and Counseling
> - Medical care of opportunistic infections, including ARVs
> - Prevention, including Prevention of Mother to Child Transmission (PMTCT)
> - Palliative care
> - Orphan care
> - Supports: social and economic
> - Support for Reduction of Stigma and Discrimination

There are a number of preparations that have been made by the Ministry of Health (MoH) in Tanzania aiming at mitigating the impact of HIV/AIDS in the above mentioned needs areas. A number of documents have been prepared to deal with the problem. Treatment guidelines have been outlined in the National Guidelines for Clinical Management of HIV/AIDS (MoH, 2002); Strategies for mitigating the impact of HIV/AIDS are laid out in the Health Sector HIV/AIDS Strategy (MoH, 2003), which is an implementation of the National Multi-sectoral Strategy (PMO, 2003); and The National Care, Treatment and Support Strategies and Plans for scaling up of the intervention are drawn in the National HIV/AIDS Care and Treatment Plan (MoH, 2004).

4.2   What is Required in Treating PLWHAs with ARV

Many of the infected people are poor and therefore, have not been able to afford treatment with ARVs. Provision of ARVs to people living with the virus, and or the disease, requires certain pre-conditions to be in place (MoH, 2004). Quality assurance, effectiveness of the drugs as well as efficient care and treatment are called for to minimize the side effects, and other adverse outcomes of using the drugs. Such requirements imply having in place enough qualified and skilled human resources and equipments for quality assurance and proper follow-up of patients.   To emphasize that, WHO, UNAIDS and other international

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organizations concerned with treatment of patients using ARVs, call for a number of things for a country to be in position to attain the above concerns. These are:

- Availability of treatment standard protocol
- Adoption of a team approach to treatment
- Availability of duly qualified clinicians and other team members
- Availability of proper diagnostic equipments and human resources to conduct patients' immunity examination.

Under the resource-stricken environment, such requirements are difficult to meet. However, it does not mean that ARVs cannot be administered in a resource-constrained environment. Since some of the requirements need clear understanding of the local situations, intervention research is required to test for scientifically acceptable alternative ways of providing care with ARVs in a resource-stricken environment. It is quite impossible, for now, that Tanzania could have duly qualified clinicians in all parts of the country to attend people requiring ARVs. It is equally impossible that diagnostic equipments and qualified manpower (for instance, technicians) would be available in all levels of health delivery to assure standards are followed. However, given that equity to access to quality health care is a social objective of the health sector, it is imperative that the government should facilitate the provision of ARVs to all needy people. But implementing this objective raises a number of research questions that are to be addressed to abide by the required international standards of administering ARVs.

4.3   Scaling Up Treatment with ARVs in Tanzania

Understanding the levels of poverty of most Tanzanians infected with the virus, the Government of Tanzania saw a need to increase access to ARVs to many PLWHAs. By lowering the financial burden, and enhancing care and treatment, the government is directly helping in mitigating the socio-economic impact among the infected and affected individuals, and communities. The Government is expected to raise funds from a number of multilateral and bilateral organizations including, but not limited to, Global Funding for AIDS, Malaria and Tuberculosis, SIDA, NORAD, CIDA, CDC, World Bank, Clinton Foundation (MoH, 2004) and The USA 10 Billion dollar fund announced by President Bush, to finance and scale-up the National HIV/AIDS Care and Treatment program in Africa. The program mainly aims at:

- Expanding care and treatment
- Strengthening the health care infrastructure
- Expanding Information, Education and Communication (IEC), and
- Strengthening social support.

To reach the goals the program plans to:

- Provide quality, continuing care and treatment
- Expand identification of HIV+ people through expansion of VCT services
- Create HIV/AIDS care and treatment teams throughout the country beginning with referral hospitals
- Integrate the trained teams within the existing health care system
- Encourage local initiatives in designing care and treatment programs as per required minimum standards of staffing, training and equipment
- Emphasize the role of private and voluntary hospitals in providing HIV/AIDS care and treatment
- Take advantage of the central ordering and distribution of ARVs, and the buying power of Clinton Foundation program in Africa and the Caribbean, to lower the drug costs
- Train entire workforce in HIV/AIDS care and treatment fundamentals
- Recruit more health workers and train them in prescribing, treating and following up HIV/AIDS patients treated with ARVs
- Upgrade laboratory functions and training of technicians
- Establish pragmatic monitoring and evaluation system to ensure upgrading of HIV/AIDS care and treatment programs
- Raise treatment literacy levels among providers and general public
- Scale-up community and home-based care services through identifying existing community and home-based programs to work together.

The above objectives call for introduction of new activities and sub-systems within and outside the health sector. Most of the new sub-systems of operation, which are envisaged, have not been tested in the Tanzanian system, and hence it is difficult to guarantee their effective functioning towards quality assurance, effectiveness of the drugs and clear follow-up of the patients for other adverse effects. Training, yes! But more is needed to find out how the training is reaching the minimum standards of patient care. It is still questionable how the qualified human resources would be maintained and sustained in the rural areas to attend the needy close to their homes.

The Health Sector HIV/AIDS Strategy for Tanzania, 2003-2006 (MoH, 2004) clearly states that it is upon the Tanzania to ensure there is capacity, not only to access the support from the organizations that are willing and able to finance the HIV/AIDS care and treatment program, but also for the health sector to be able to absorb the new resources in an effective manner (MoH, 2004). This is a challenge that requires establishing and maintaining a system that is amenable to changes, and has the capacity to sustain it. Capacity to absorb resources for implementing activities at the district level has been a noticeable problem in some of the

Council Health Management Teams (CHMT) in Tanzania (Kamuzora et al., 1999; de Savign et al., 2004), as it has been found elsewhere in Africa (WHO, 2001). The success in mitigating the impacts of HIV/AIDS depends on, among other things, the allocative efficiency capacity: that is allocating resources to and utilizing them for the most cost effective alternatives of administering care and treatment to PLWHAs. This is a challenge that calls for research to understand and document the CHMTs' capacities, as implementers of the program, to allocate and utilize financial and human resources in the most cost-effective manner, with the aim of reducing technical and allocative inefficiencies.

4.4   Implications of Scaling-up ARV Treatment

The Ministry of Health is currently implementing a National HIV/AIDS Care and Treatment Program (MoH, 2004). Treating PLWHAs with ARVs has already started in some health facilities in Tanzania. It is reported that at the Muhimbili National Hospital (MNH), about 900 out of 1,600 PLWHAs are currently on anti-retroviral drugs. It is expected that by the end of 2005, about 1,500 PLWHAs will be receiving the drugs and it is estimated that about 3,000 and 5,000 PLWHAs will be on treatment by the end of 2006 and 2008 respectively. A total of 91 health facilities and all regional hospitals will be involved in treating patients with ARVs. It is currently estimated that a monthly dose of ARV drugs ranges between TShs 30,000 and TShs 40,000. The government has already disbursed TShs 2 billion to that effect.

It is well known, at least for now that ARVs if well administered at standard protocols will improve the quality of life of the PLWHAs, save the side effects to some of the patients. However, apart from improvement of the quality of patients and prolongation of life that is to be enjoyed by PLWHAs, the cost of scaling up the intervention is a constraint that has to be addressed. Planning is one thing but a successful implementation is another.

Likely implications of prolongation of life and improvement of the quality of life:

> ➤ Are we risking experiencing increased <u>prevalence</u> of the disease since people will be living longer than without ARVs? What are implications of living longer with a disease?

> ➤ Will utilization of health facilities increase since it is reported that more than 50% of the public hospitals are currently occupied by patients who suffer from opportunistic infections due to HIV infection?

> ➤ Will the health sector cope with the increase of the patient loads despite that it has already been over-stretched?

> ➤ Is the <u>incidence</u> of the disease likely to increase since PLWHAs are made more active with the improvement of the quality of life?

> How many person-years of production will PLWHAs add to the economy after treatment?

> What will be the future annual budget implications on other health sector activities? What are the annual costs of monitoring and evaluation of the intervention?

> What are the implications on stigma and discrimination on people made to live longer?

All these questions need answers from research, which would assist in improving the planning and implementation of the Treatment Plan.

4.5 Management of Opportunistic Infections

Due to loss of immunity in their bodies, PLWHAs are vulnerable to parasitological, bacterial and viral infections and malignancies. As a strategy towards mitigating the socioeconomic impact of HIV/AIDS among PLWHAs and their families, Care and support includes comprehensive management of opportunistic infections (MoH, 2003). However, most of the opportunistic infections that PLWHAs are likely to suffer also affect the non-infected individuals. This calls for proper identification, among people seeking care with such presentations, of who is infected and who is not. The way to identify who is infected should be based on the local socio-cultural values. It has been sounded in different African communities that most of the methods that have been transplanted from Western cultures have not really been in a position to attain the goal of identifying who is infected. Development of alternative ways of making people identified as infected without stigmatization and discrimination is a research issue.

The Health Sector HIV/AIDS Strategy and The National HIV/AIDS Care and Treatment Strategies specify that guidelines for management of opportunistic infections, regular supply of diagnostic reagents, equipment and regular supply of drugs have to be in place for proper management of opportunistic infections (MoH, 2003 & 2004). For efficiency gains, sources of inefficiency in the current system have to be identified. Introducing a new sub-system in the old system without identifying the strengths and weaknesses of the old system is like the saying "new wine in the old bottle."

4.6 Home Based Care, Counseling, and Social Support

Home-based care is considered as one of the cost-effective interventions for mitigating the impact of HIV/AIDS and other incurable diseases. It is also considered as a way of expanding social support to the families of the infected person. The Health Sector HIV/AIDS and the National HIV/AIDS Care and Treatment Strategies emphasize that home based care completes the bridge in the continuum of care from the health services to the community and vice versa,

and ensures that PLWHAs are relieved of their distressing symptoms (MoH, 2003 & 2004). Furthermore, the documents also emphasize that the intervention will mount IEC activities to members of the families and communities at large. We remark that it is good that people are left to die with "dignity" in their homes, and serves the family and the community from incurring transportation costs.

Cost effectiveness as a measure of impact of HIV/AIDS alternative intervention is the main argument posed for choosing home based care. However, home-based care involves more than costs[8] and effectiveness, but also the way patients and the home carers feel psychologically. To the patient it could be translated as dumped to die at home because the disease has been declared incurable by social institutions entrusted by the society, and trained in treating diseases, a health facility to a home, a dying and burying place. To improve the quality of life of the diseased persons includes getting opinions from the sick people on the perception of being sent home to "die" for the pretext of a "home-based" care. Although it is obvious that the diseased may feel protected as they are taken care by the family, not much is known on how patients feel about the future of their conditions when they are sent home to "die". Do they feel that they have been condemned to die or brought home to be respected? It is also true that most of the family members where diseased are sent to "die' have no training in nursing care. Therefore, little is also known on the quality of care that the PLWHAs get in homes compared to what they would get in specialized institutions. It could therefore be argued that promoting home-based care is like transferring the burden to already impoverished households. To what extent do the home carers perceive this as a transfer of burden from the health sector to the households? This is a research question.

The strategies also focus on improving social support by identifying, supporting and improving community programs in districts. The aim is to have the PLWHAs access care treatment and support from their respective communities. However, in many community based services accurate targeting has been the main problem. In some cases, beneficiaries have accidentally been denied the benefits of the intervention, ending with "type I error"—the benefits are reaped by the non-targeted—or "type II error," a leakage.

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[8] We are not sure of the inclusion of the opportunity costs of the home care costs in the cost function. It can take many days before the PLWHAs die, and the time taken for care must be reflected in the cost calculations.

5.0 CONCLUDING REMARKS

Many studies on HIV/AIDS have focused on epidemiology of the disease and on characterizing the impacts, but research need to go beyond these. Care, treatment and support are important ingredients in reducing the HIV/AIDS impact. However for them to be efficient, conditions and contexts that they are to be operated have to be well studied and results utilized to improve upon the existing systems and situations. Research has an important role to play and its results used to inform decisions in care, treatment and support of PLWHAs.

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From Impact to Meeting Mitigating Challenges in Care and Support of HIV/AIDS in Tanzania: What Can Research ontribute?