Investigate The Factors Influencing The Prevalence Of HIV/AIDS In Zambia; What Must Be Done In Order To Eradicate This Pandemic In Zambia? – Strategies And Solutions

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Abstract: HIV and AIDs has contributed to the increase of poverty in developing countries and Zambia is one such country that has faced real challenges in the face of the pandemic. HIV and AIDS is considered the deadliest epidemic in the 21st century which claims a lot of lives especially the energetic and sexually active population. It is transmitted mainly through sexual activities and mother-to-child transmission among other models. The young productive and educated citizens are the highly affected and infected than compared to the adult fork. Zambia like any other country in subSaharan Africa needs to fully understand the depth of pandemic, with regards to social, cultural and economical behaviour. This will lead to appreciate the root cause and hence developing of long lasting interventions. It is for this reason that research is one such an important strategy that the country has embarked on.

According to the (2011-2015:7) global health strategy initiative for Zambia, the HIV epidemic has stabilized at high levels: 14.3% prevalence among adults and 16.6% among pregnant women. Adult HIV/AIDS prevalence remains higher among women (16.1%) than men (12.3%) and higher in urban areas (19.7%) than rural areas (10.3%).

Zambia needs to embark on health promotions that influence behaviour change to be able to reduce the spread of HIV. The country needs to study or investigate the key drivers of HIV and develop strategies that are participatory in nature and behaviour change centred programs.

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I. BACKGROUND

HIV/AIDS is a global pandemic with approximately 36.7 million people living with HIV globally by 2016. There were about 1.0 million deaths from AIDS in 2016, down from 1.9 million in 2005. The 2015 Global Burden of Disease Study, in a report published in The Lancet, estimated that the global incidence of HIV infection peaked in 1997 at 3.3 million per year and it was noted that Sub-Saharan Africa is the region mostly affected. In 2010, an estimated 68% (22.9 million) of all HIV cases and 66% of all deaths (1.2 million) occurred in in the sub saharan region of which Zambia is not exceptional. These statistic clearly means that about 5% of the adult population in the region were infected in contrast to other regions, were women compose nearly 60% of cases.

HIV/AIDS is considered the deadliest epidemic in the 21st century. It is transmitted mainly through sexual activities and mother-to-child transmission among other models. Zambia is experiencing a generalized HIV/AIDS epidemic, with a national HIV prevalence rate of 17 per cent among adults ages 15 to 49. Africa is the leader in the world with 65% victims. As per the 2000 Zambian census, the people affected by HIV or AIDS constituted 15 per cent of the total population, amounting to one million, of which 60% estimated were women. The pandemic results in increased number of orphans, with an estimated 600,000 orphans in the country. HIV/AIDS is more prevalent in urban areas compared to rural areas. Copperbelt Province and Lusaka Province had higher occurrence.

The prevalence of HIV varies considerably between different countries and between different populations within a country as well as globally. It is associated with much more variation in socio-demographic and health factors than is admitted in broad statements and projections about pandemics based on crude epidemiological data. Differences between cultures within Zambia in terms of contraceptive use, educational attainment, circumcision practices and access to treatment for sexually transmitted diseases (STDs) contributes to HIV prevalence levels in the country. This diversity is usually attributable to a range of socioeconomic, biological, demographic and behavioral factors. The positive relationship between lower socioeconomic status and HIV progression is well documented.
It is important to understand why the HIV/AIDS pandemic has affected Africa, Sub-Saharan African in particular and Zambia has a country. Epidemics arise when two key elements are in place: a vector of transmission and an environment that facilitates transmission for example malaria depends on conditions that allow anopheles mosquitoes to proliferate. In contrast, the spread of HIV is facilitated largely by social and cultural factors. The social environment may vary in different parts of the world. In many African countries, including Zambia, gender inequality, risk behavior and poverty are among the factors in the environment enabling HIV to spread.

Definition of key concepts
Prevalence: The proportion of individuals in a population having a disease or characteristic. Prevalence is a statistical concept referring to the number of cases of a disease that are present in a particular population at a given time, whereas incidence refers to the number of new cases that develop in a given period of time.
Pandemic: A pandemic is an epidemic occurring on a scale which crosses international boundaries, usually affecting a large number of people. Pandemics can also occur in important agricultural organisms (livestock, crop plants, fish, tree species) or in other organisms.
Eradicate:....

Factors influencing the prevalence of HIV/AIDS in Zambia
Zambia is a country with a total population of about 14,000,000 and has 10 provinces. According to the (2011-2015:7) global health strategy initiative for Zambia, the HIV epidemic has stabilized at high levels: 14.3% prevalence among adults and 16.6% among pregnant women. Adult HIV/AIDS prevalence remains higher among women (16.1%) than men (12.3%) and higher in urban areas (19.7%) than rural areas (10.3%). Although HIV/AIDS incidence may have begun to stabilize, the absolute number of HIV/AIDS positive individuals may increase as the number of people on anti-retroviral (ARVs) increases, there are fewer HIV/AIDS related deaths, and the population continues to growing, has a mature, generalized epidemic in which HIV transmission primarily occurs heterosexually. In the latest 2013-14 DHS, HIV prevalence in adults aged 15-49 years was estimated at 13.3%. Spectrum estimates of the HIV prevalence in adults aged 15-49 years suggest that the Zambian HIV epidemic has been fairly stable over the last 15 years with a very modest decline after the initial peak prevalence. Other findings of the DHS 2013-14 were that HIV prevalence generally increases with increasing education, especially among women. They are variances in the provinces with the urban provinces of Lusaka and Copperbelt having the highest prevalence (16.3% and 18.2% respectively) while Northwestern and the most recently created (2011) Muchinga Province have the lowest prevalence (7.2% and 6.4% respectively), and the lowest population densities.

Marriage patterns and polygamy
HIV prevalence in Zambia shows heterogeneity by marital status and type of union. Widowed and divorced are more likely to be HIV positive (46.3% and 27.4% respectively). Women not currently in a union (16.1%) and men not in non-polygynous unions (14.7%) are more likely than those in unions to be HIV positive, this clearly shows that Zambian marriage patterns highly contributes to the HIV prevalence.

Low and inconsistent condom use
In both DHS 2007 and 2013-14, men and women who used a condom during their most recent sexual intercourse in the past 12 months were more likely to be HIV positive (46.3% and 27.4% respectively). Women not currently in a union (16.1%) and men not in non-polygynous unions (14.7%) are more likely than those in unions to be HIV positive, this clearly shows that Zambian marriage patterns highly contributes to the HIV prevalence.

Early sexual debut
Early sexual debut is associated with the risk of acquiring HIV infection and the increased likelihood of engaging in risky sexual practices such as inconsistent condom use and multiple sexual partners which is a high factor to HIV prevalence.

HIV prevention and care in children
Vertical transmission of the HIV virus from mother to child at birth or during breastfeeding accounts for 90% of HIV infection in children. Increasing the level of knowledge about HIV transmission from mother to child and reducing the risk of transmission by using antiretrovirals before delivery are critical in reducing mother to child transmission (MTCT). Among 15-49, women (88.8%) are more aware than men (82.1%) that HIV can be transmitted through breastfeeding, and that the risk of MTCT can be reduced by taking special drugs.
during pregnancy (82.0% and 65.8% respectively). Many parents especially in rural communities of Zambia have little information on MTCT leading to increased HIV prevalence in children.

**Ignorance**

Most people living in Zambia are fully aware of the disease, but they continue to get involved in practices that fuel its transmission. This is ignorance, and it is adversely driving the HIV/AIDS epidemic in the country especially among the women in urban areas.

**Illiteracy**

Zambia’s literacy rate stands at 55.3 percent, with illiteracy much more pronounced in females than males. Zambia has a large percentage of people who have heard about HIV/AIDS but know very little about it. Most people know the disease exists, but they lack information about its aspects. Generally, illiterate people don’t know anything about the HIV transmission, ways and preventative measures, and they continue to engage in unsafe practices that spread the virus. These people are also easily influenced by the beliefs, myths, and misconceptions about the disease leading to high levels of the pandemic.

**Drug and Alcohol abuse**

Drug and alcohol abuse is quite common among the youths in the urban set up and it contributes to immorality among the youths. According to studies, there have been consistent new HIV infections resulting from sharing of injectors among the drug users in the country though this is just a few pocket and difficult to measure. There are also other ways in which alcoholism and drug abuse affects spread of the disease in Zambia. For example, the alcohol users find themselves not being able to make wise decisions when getting involved in sexual activities or other social interactive activities. On the other hand, people who are addicted to drugs are turning to careless sexual behaviors to relieve the pain and stress caused by the addiction. HIV/AIDS Stigma

People living with the virus are still stigmatized in the developing countries, Zambia is no exception, and this is causing many people to avoid HIV testing. Most people who manage to get tested do not reveal their status if they have been found to have the virus. They also find it difficult to get antiretroviral (ARV) drugs or to use them in the presence of other people. Those who do not know their status continue to get involved in high-risk behaviors and activities. According to HIV/AIDS specialists, people who are infected with the disease and are not using ARVs are spreading the virus more easily compared to those who are on ART. (DISCOVER Health 2018, GFC 2018).

**Gender inequality**

Gender inequality is not unique to Africa as Zambia, with respect to HIV/AIDS, it particularly refers to men’s greater power, in sexual and social relations, than women’s and more opportunity to dictate the frequency and form of sexual intercourse. Men often control women’s sexual lives through gender-based violence and sexual abuse, which may include rape. Such violence is usually condemned in law but is often condoned by culture. Gender-based violence may be exacerbated by social conditions, including poverty, as some men compensate for their lack of economic and social power by exercising their physical, social and psychological power over women. Sociocultural and legal constraints on men’s sexual behaviour are frequently weak, allowing men to be less prudent in their sexual relations. For example, in parts of eastern and southern Africa, much higher rates of infection among young women (under 25) than among young men of the same age group, may be explained to some extent by the fact that older men, who are more likely to be HIV-positive, have sexual relations with young women. Young women are also physiologically more vulnerable to infection than older women because their vaginal tracts present a less effective barrier to infection. Society often ignores such behaviour and the attitudes that underpin it. For example, mothers as well as fathers may condone sexual adventurism in their sons at the same time as they condemn such behaviour in their daughters. In the same way, many women excuse their sexual partners’ having outside relationships either because they fear losing their partner or because they believe that that is “normal” male behaviour. Meanwhile, men themselves frequently exhibit such behaviour (multiple sex partners, violence and abuse, etc.), because they fear that to behave differently might lose them the respect of their peers. Some young women engage in sexual relationship for them to pass their examination, some offer their bodies to seek employment and some to get promotions and this is practised even by marriage women.

**Poverty**

In most developing countries such as Zambia, poverty is well pronounced. Poverty and HIV/AIDS are closely linked. At national and community levels, poverty prevents the establishment of needed prevention, care, support and treatment programmes. Poverty also reduces access to information, education and services that could reduce the spread of the virus. At an individual and household level, income poverty often forces women,
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and some men, into sexual situations they would not otherwise choose. Poverty may also be associated with migration, both within and outside a country. Studies have identified certain categories of migrants as high-risk or vulnerable groups. In turn, HIV/AIDS generates poverty. As those with the virus fall ill and die, a family or community loses much needed productive resources. As mentioned earlier, the impact may be felt in all sectors, including agriculture, education, health and industry. Consideration of the linkages between HIV/AIDS and poverty is of special importance in Zambia because its among the 34 of the 49 least developed countries in Africa, and higher percentages of the populations live below the poverty line that is, on less than $1 a day. People living under conditions of abject poverty may be so preoccupied with immediate survival that concerns about preventing HIV/AIDS, the impact of which will be felt only in the long term, and may be given low priority. Hungry people will not listen to the AIDS music and prevention messages. Poverty in Zambia is widespread of which 64 per cent of the total population lives below the poverty line, rising to 80 per cent in rural areas, meaning they do not have adequate income to meet their basic requirements, this however, contributes mostly to poor people being forced to do anything to earn a living, including engaging in sexual activities which are a high-risk factor for the disease. There have been many cases of young people getting involved in commercial sex in the country. This activity has been studied to tremendously increase the disease prevalence. Poor people also have limited access to education which means that illiteracy is common among them. During research the author and co-author visited different areas including the fishing areas or communities of Luapula province, Nchelenge and Samfya districts. Illiteracy is high in this communities and the HIV rate appeared to be high. The author and the co-author visited the HIV counselling sites for Groups Focused Consultations in Kanshikishi and Kasoma Bangweulu.

Conflict and emergency situations

It is a sad reality that Africa is racked by conflicts, wars and civil strife rage in at least 15 countries, with spillover effects in Zambia. These have made Zambia home to thousands of refugees and displaced persons, many more than in any other country in the southern region of Africa. The relationship between HIV/AIDS, conflicts and the emergencies they engender is well documented. Conflicts drive the epidemic in a variety of ways. Gender inequities, as manifested through rape and other forms of sexual abuse, are exacerbated during wars and civil conflict. This contributes to the spread of the virus. Soldiers and others engaged in conflict, who confront danger and death on a daily basis, may adopt a cavalier attitude towards HIV/AIDS. It has been amply demonstrated that displacement and refugee circumstances undermine families and traditional authority structures, a situation that may lead to an adjustment of moral standards. Conflicts aggravate poverty, thus increasing the susceptibility of families and communities. During the study the author and co-author visited Nchelenge district, Kenani refugee camp.

Sexual and reproductive health

It is worth noting that, more than 90 per cent of HIV infections in Zambia occur as the result of sexual intercourse. That fact presents a challenge for behaviour-change programmes. Past behaviour-change interventions seemed to assume that sex is a simple mechanical act onto which abstinence, mutual fidelity or condom use could be imposed. However, when the external factors of gender inequality, poverty, migration and high rates of sexually transmitted infections (STIs) are brought together with physical and psychological factors unique to each human being, such as hormonal activity, age and self-confidence, it becomes clear that sexual activity is a highly complex phenomenon. Today, sexual and reproductive health programmes cannot be effective without integrating HIV/AIDS prevention. Similarly, effective HIV/AIDS prevention cannot be achieved if education programmes do not include wider aspects of sexual and reproductive health and human rights based approach. However, given that sexual activity is driven by a wide range of factors, it is likely that that long-term, consistent behaviour change requires not only deep-rooted psychological conviction on behalf of the individual but also broader social change, including poverty alleviation and gender equality.

HIV and AIDS was introduced in Africa and Zambia in particular by people from other countries (i.e. the developed ones). The developed countries have the capacity to control the pandemic while poor Zambia, the pandemic is in control. Movements from one city to the other even today account for some transmission of HIV, it is for this reason that various events to some degree contribute to the transmission of HIV in Zambia and this include: workshops were people leave their home and travel to other cities, traditional ceremonies which require people to move from one town (ie Mutomboko and Kuomboka). Business men and women, military personnel, traders and contractor when the move from one city to other cities for business. Infected people spread the virus when the move to work, study or do business in areas that are free from the disease. This is one of the reasons for the high prevalence rates in urban (Bond G, Howe D, Cobley A.). There is evidence though not documented that movements or immigrants contribute to the spread of HIV.
Lack of access to maternity service
Some of the areas, the poor rural communities lack enough maternity services for pregnant women forcing most of the women to deliver from thier home and hence bear children without the help of trained health care providers and these children have also no attention of the provider ( GFC Maternal Health 2013 Report ZISSP). The following are among the areas visited and have no maternity service non the health facility within a distance of 5 to 10: Yongolo a fishing camp in Luapula province, near Mukuku bridge, Matanda resettlement schem and the area between , Mukuku bridge and chalilo community of Serenje District central province to site a few.

What must be done in order to eradicate this pandemic in Zambia
Strategies and solutions
Since the beginning of the epidemic, national and international efforts to combat HIV/AIDS have focused on four main areas: research, prevention, treatment and care, and impact mitigation. In recent years, gender, human rights and empowerment elements have also been given increasing consideration at global level, while few efforts are done by developing countries like Zambia. For developing countries like Zambia these themes constitute vital areas of intervention within which a broad range of actions may be conceived and implemented if change has to be recorded.

Research
Zambia like any other country in subSarahan Africa needs to fully understand the deepth of pademic, with regards to social,cultural and economical behvoiur. This will lead to appreciate the root cause and hence developing of long lasting interventions. It is for this reson that research is one such an important strategy that the country has embarked on.
a) Biomedical
Biomedical and epidemiological research has led to growing understanding of the nature of the virus, its variants and mutations. Centre for infectious Disease Research in Zambia (CIDRZ) has been established as an independent, local, non-governmental health organisation that has been an active partner of the Government of the Republic of Zambia through the Ministry of Health, and other Ministries since 2001. The Mission is to improve access to quality healthcare through innovative capacity development, implementation science and research, and impactful and sustainable public health programs. CIDRZ experts utilize innovative and collaborative approaches to develop research, health services, and training initiatives with measurable results in various infectious diseases including HIV/AIDS prevention, care and treatment. Research in Zambia has helped to map the course of the epidemic in different parts of the Africa of which Zambia is not exceptional. Pharmacological and vaccine research continues at numerous centres across the globe, yielding a range of pharmaceutical products and holding out hope for ever more promising treatments and, eventually, even a vaccine. Sociocultural and behavioural research continue to explain or shed light on the epidemiological evolution of the disease among various societies and communities, whereas operations research and impact studies have continued to guide the formulation and implementation of prevention and care interventions.

Behavioural
Behavioral research in HIV/AIDS primary and secondary prevention: recent advances and future directions. Attitude of human being with regards to the pademic is one area that needs careful and expert knowledge. In Zambia a good number of institutions during learning institutions such as University of Zambia, Information, communication university and local NGOs have taken keen interest to contribute to the body of knowledge in the area of prevention and care. Great advances have been made over the past years in behavioral research on how to help persons avoid contracting HIV infections (primary prevention) and how to reduce or alleviate adverse consequences among persons who are living with HIV (secondary prevention). Within the primary prevention areas, research has shown the effectiveness of risk-reduction interventions undertaken with individuals, couples, small groups, communities, and at a social policy/structural level.

Prevention
Prevention is more cost effective than cure and since no cure has been discovered for AIDs, preventing infection and controlling the spread of the virus constitute the prime line of defence against HIV. In Zambia the local civil society organizations are embarking on prevention interventions with support mostly coming from the international organizations and foreign governments. HIV prevention in Zambia includes attempting to prevent sexual transmission to young people, men and women through education programmes designed to promote abstinence, mutual fidelity and the use of condoms. Other prevention measures include ensuring the safety of blood supplies and averting the transmission to newborn children through short-term provision of anti-retroviral drugs. In Zambia, promoting individual behaviour change as the sole or even principal prevention intervention has proved to have severe limitations. This is attributable in part to the lack of resources to maintain sustained
education programmes and in part to the failure to address deep-rooted social and psychological factors that determine sexual attitudes and behaviours. Prevention of parent to child formerly kown as Prevention of mother to child is also a vital area of prevention if Zambia has to have a free HIV generation.

Treatment and care

The Zambian government with support of the foreiggn government is working on the 90,90,90 strategy. This strategy ensure that citizen have access to HIV testing services, those tested positive have access to treatment. Zambia has received financial and technical support for such programs from many foreign government which includes the United States through various project which includes: USAID JSI DISCOVER Health a program that target the community and services are delivered at their door steps. USAID JSI DISCOVER Health works in partnership with local NGOs in Zambia and these include: Groups Focused Consultations-GFC, Development of People to people – DAPP and Litking . The project undertakes the HIV counselling and testing, once tested HIV positive , the clients are initiated on Treatment. With the development of anti-retroviral drugs such as ARVs, which reduce viral load and delay the progression from HIV infection to AIDS, the disease need no longer be an automatic death sentence. However, because of the high cost of these drugs, most developing countries including Zambia have been facing financal challenges to afford to buy the drugs and has resulted in shortages of drugs in health facilities, however with the support of the international programs and foriegn governments, Zambia is now delivering the quality health service . In this regard, recent developments have opened a window of hope of which intensive negotiations and pressure from HIV and AIDS advocacy groups have led pharmaceutical companies to reduce drastically the price of anti-retroviral drugs and to ease their opposition to the importation of cheaper generic versions of drugs they have patented. It is important to indicate that it was observed during the resaech that Zambia is also receiving a lot of support from the Global Fund in the area of HIV, T.B and Malaria.

Impact mitigation

As the HIV and AIDS epidemic grows and manifests itself in widespread morbidity and mortality, its impact is felt on individuals, households and communities. It imposes a heavy burden of care and support on individuals and families. The burden on the larger society is no less traumatic. An increasing number of orphans, single-parent or no-parent households and costly funerals strain community resources which includes the time, money, materials and skills. In response, a broad range of innovative care and support mechanisms has to be established. Many approaches are community-based, calling upon traditional Zambian social solidarity and mutual support systems. Home-based care for sick relatives is at the heart of these initiatives. It has been observed that women and girls bear the brunt of care and support, as many cultures assign to them the role of caregiver and comforter whilst performing such tasks they miss other social and economic opportunities. To make impact mitigation an early and high priority implies improving the capacity of society to halt and reduce further spread of the virus as well as to provide necessary support to surviving family members. The agenda for addressing impacts has several components. The first step is to estimate levels of human resource loss over time. Second, these estimates need to be equally incorporated into macroeconomic and into sector planning . The government of Zambia need to invest in the fight against HIV through stregthen coordination machenisim and established support to local NGOs than just depending on foreiggn government aid.

Human rights protection

As the HIV/AIDS epidemic evolves in a community, it brings forth a number of human rights issues. Discrimination based on HIV status is widespread. At the most basic level, this is manifested in the stigmatization of PLWHA as individuals who are immorral, sinful or cursed. Other forms of human rights violations include the dismissal of employees diagnosed with the disease as well as other forms of discrimination in the workplace. The refusal of insurance companies to cover infected individuals may also be construed as a form of discrimination. An important debate with a human rights dimension is the right of infected persons to privacy. In other words, should their HIV status be divulged? If so, to whom? How does this right to privacy cohere with the rights of sexual partners to protect themselves based on knowledge of their partner’s status. Sometimes entire population groups or segments may suffer discrimination based on perception that HIV is prevalent in their communities. For instance, in the early days of the epidemic, some groups such as the military, long-distance truck drivers, migrants and commercial sex workers were tagged as “high-risk” or agents for the spread of the epidemic. Cohen, MS; Hellmann, N; Levy, JA; DeCock, K; Lange, J (April 2008).This may lead to violations of the human rights of individuals belonging to these groups. For instance, some countries require applicants for entry visas from specified countries to undergo HIV tests, as well as degrading treatment. These five dimensions research, prevention, treatment and care, impact mitigation and human rights provide an appropriate lens through which to view responses to the epidemic. However, the fact that the causes and consequences of the disease are multisectoral, rather than confined to the health sector,
increasingly dictates a response, from Governments, civil society and development partners, that involves macroeconomic and development strategies.........................

II. CONCLUSION

In conclusion, the urgency of achieving these strategies and solutions calls for inputs in advocacy, requires that dynamic and creative relations the government of Zambia and the local civil society organizations. Invest in research with interest into the social causes, context and consequences of the epidemic. It is important to indicate the National AIDS Coincil should be receiving full support of the Zambian government to ensure that proposed strategies are implemented. The Zambian government should take keen interest in investing in HIV prevention through its domestic resources which may include the toll gate since HIV affects everyone and is worse that the poor road besides there is no machanism in Zambia to raise fund for HIV prevention.

BIBLIOGRAPHY


