

HIV & AIDS Controversies as Probable Determinant of Audience Response to HIV & AIDS Communication

Allen Nnanwuba Adum¹, Charity Ogochukwu Ekwenchi²,
Uche Patricia Ekwugha³

^{1, 2, 3} (Department of Mass Communication, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria)

Abstract: HIV is a global health issue. Communication has been identified as the 'social vaccine' against the spread of HIV. This means that a positive outcome for any HIV communication initiative implies success at combating the virus. The issue of HIV & AIDS has been beset by lingering controversies, which call into question, the reality of HIV as the cause of AIDS; the efficacy of antiretroviral drugs; the validity of the HIV-positive test; the 'killer effect' of AIDS, among other issues. This study utilized survey questions on: dependency on the media for information on HIV & AIDS; exposure to media HIV & AIDS campaign messages; knowledge of HIV & AIDS; awareness of HIV & AIDS controversies; believability of HIV & AIDS controversies and believability of media HIV & AIDS campaign messages, to investigate HIV & AIDS controversies vis-a-vis the response to HIV & AIDS communication, by a target Nigerian youth audience. Results, from a random sample of 500 Nigerian undergraduate students, show a significant relationship between believability of HIV & AIDS controversies and negative response to HIV campaign messages. The study recommends further probe to conclusively generalize the impact of exposure to HIV & AIDS controversies in shaping youth AIDS beliefs.

Keyword: AIDS beliefs, AIDS denialists, believability, HIV & AIDS communication, HIV & AIDS controversies

I. Introduction

HIV, which stands for Human Immuno-deficiency Virus, damages the immune system, causing a variety of symptoms known as AIDS. This has been accepted as fact for nearly three decades. Scientists, government officials, physicians, journalists, public service advertisements, TV shows, and movies had held that AIDS is caused by a retrovirus called HIV. This is in stark contrast to the views of some "dissent" scientists which suggest a fallacious angle to the HIV & AIDS hypothesis.

On April 23, 1984, Dr. Robert Gallo, a cancer researcher announced during a joint international press conference with the US Department of Health and Human Services, the discovery of a new retrovirus (Human Immuno- deficiency Virus) which he described as "the probable cause of AIDS". [1] This announcement gave rise to a lot of controversies and the discovery was contested as falsified. [2][3] Also, a body of "dissenters" grew who differed with this "Gallo hypothesis". These "Dissenters" from the "theory" that HIV causes AIDS have published books and articles and maintained a formidable presence on the Internet. [4]

South Africa, for instance, is reputed to be home to more people living with HIV than any other country in the world, but former president Thabo Mbeki, at one time, denied knowing anyone affected by the disease. In an interview with the Washington Post, in New York, in 1999, he said, "personally, I don't know anybody who has died of AIDS". And when asked whether he knew anyone with HIV, he said, "I really, honestly don't". This stance came at the time that an estimated 600 South Africans died of AIDS-related illnesses everyday and one in ten South Africans lived with HIV. [5]

Brent Leung's 2009 documentary AIDS denialist film, House of Numbers, denounces AIDS as a hoax. The documentary, which has premiered at film festivals and is, being promoted on college campuses in the U.S., holds that "a world without AIDS may be closer than you think". [6]

In the face of AIDS denial, startling statistics drive home the reality of the HIV & AIDS epidemic. [7] Since AIDS was first reported as the immunological disease afflicting young Americans, more than 20 million people are believed to have died of AIDS-related diseases around the world and roughly over 35 million people might have been infected with HIV. [8]

According to UNAIDS [9], sub-Saharan Africa is the region of the world with the greatest burden of HIV & AIDS. An estimated 22.5 million people were living with the disease in 2009, and approximately 1.8 million new infections occurred in the same year. Also, 1.3 million AIDS-related deaths were reported in this region among adults and children in 2009 alone. The UNAIDS Global HIV/AIDS statistics released in 2014 shows an increase in these sub-Saharan HIV & AIDS statistics.

Although it has been widely held that the first case of AIDS in Nigeria was reported in 1986, the pandemic has now reached an alarming proportion. According to CIA Factbook [10], seroprevalence in Nigeria was 3.1 percent as at 2012. Available data from Sentinel surveillance sites in Nigeria show that HIV is still spreading. Men and women at a youthful age are being infected mainly through heterosexual contact. More disturbingly, an increasing number of children are being infected at birth and more are losing one or both of their parents to the disease. This HIV & AIDS situation has been raising concerns in some quarters that Nigeria may be heading for a social and developmental crisis as a result of the impact of HIV & AIDS pandemic.

Even though HIV & AIDS remain top priority on the agenda of the international community, significant drop in transmission rates have been painfully slow over the years for sub-Saharan Africa. UNAIDS Global HIV/AIDS Statistics for year 2014 show that 35 million people were living with HIV as at 2013; 2.1 million were newly infected; and 1.5 million died from AIDS-related illnesses. From these statistics, sub-Saharan Africa bears the burden of 24.7 million living with HIV; 1.5 million new infections and 1.1 million AIDS-related deaths. In Nigeria about 80 percent of people with HIV do not have access to ART (Anti-retroviral treatment). These statistics would suggest that the HIV & AIDS menace still holds sway in sub-Saharan Africa, despite intense prevention programmes to curb it.

An Overview Of HIV & AIDS Controversies

Controversies that have attended the issue of HIV & AIDS appear to be mostly along the lines of HIV not being the cause of AIDS; HIV & AIDS being Western conspiracy; the doubtful efficacy of antiretroviral drugs; genuineness of the HIV-positive test and the fallacy of AIDS as a “death sentence”.

In 1988, the 1993, Nobel Prize Winner for Chemistry, Dr Kary Mullis, was employed by the US National Institute for Health (NIH) to set up analyses for HIV testing. When preparing his report, he asked his colleague, a virologist, for a reference that HIV was the probable cause of AIDS. He was told there was none.[11]

Some scholars find the idea that HIV, a retrovirus, supposedly infects and kills the “T Cells” of the immune system, ludicrous. They argue that what most people do not know is that there have been a virtual media blackout on the issue of the long standing scientific controversy over the cause of AIDS. They further hold that leading biochemical scientists, including University of California at Berkeley retrovirus expert, Peter Duesberg and Nobel Prize winner, Walter Gilbert, have been warning for years that there is no scientific proof that HIV causes AIDS. [12]

There is the argument among some scientists that HIV tests are not standardized and give many “false positives”. This is because they react to substances other than HIV antibodies. These scientists aver that the HIV tests at best confirm the presence of antibodies and not the virus itself; much less the virus in an active, replicating state; and it is even difficult to find live virus in the bodies of patients who are dying of AIDS, since antibodies typically suggest that the body has fought off a viral infection, and antibodies may persist long after the virus itself has disappeared from the body. [13]

Liversidge [14] states that the science of AIDS was being mugged daily by the arrogance and biases of scientists who seem to protect the ruling notion in the science of AIDS – the hypothesis that the syndrome was an infectious disease caused by the notorious retrovirus, HIV. This work notes that what is still not widely appreciated is that there is a substantial doubt among some well-informed scientists and commentators that this simple retrovirus is the right answer to the puzzle of AIDS. That is, the severe immune collapse and its many attendant diseases, which is called AIDS, if HIV is present. But this doubt has been largely stifled and prevented from receiving a full airing in science Journals and in the media.

Year after year, according to Liversidge, [14] the position that HIV was the cause of AIDS had been maintained by the scientific establishment in the teeth of a gale of findings that cast doubt on the idea. This work further holds that there are concerns over the accuracy of both the ELISA and Western Blot tests, which have proved to cross-react with an abundance of other diseases including malaria, casting a grave doubt as to the reality of any AIDS epidemic at all in Africa.

Lanka [15] holds that, what has been ignored and kept from public awareness is that there has never been a workable HIV test and that the definition of “positive” has always changed according to the views of different organizations dealing with it; and changed also according to the kind of tests used and the laboratories performing the tests.

According to Hodgkinson [16] “there is not a single study showing either AZT or nevirapine (antiretroviral drugs) to have saved lives. On the contrary, Hodgkinson [16] says, AZT is a poison that was essentially marketed by the US National Institute of Health, with the grateful collaboration of drug companies that went on to make billions of dollars from it, during a period of immense political and social pressure to come up with an AIDS treatment.”

Giraldo et al [17] contend that, there are many scientific facts indicating that, the tests used for the diagnosis of HIV are extraordinarily inaccurate; that being HIV positive does not mean that the person is infected with HIV, the so-called "AIDS virus". They are of the view that there are more than 70 different non-HIV related reasons to have a positive result on the "AIDS test". Meaning, the transmission and infectivity of AIDS is not real. And the risk of developing AIDS after being labeled "HIV positive" is unknown. Giraldo et al [18] further argue that HIV is not the cause of AIDS and that HIV may not even exist as a virus. Similarly, they are of the view that what is called "AIDS" is a toxic and nutritional syndrome and all antiretroviral drugs are highly toxic to humans. Meaning, antiretroviral drugs can by themselves cause AIDS.

The vast majority of HIV & AIDS estimates for African countries are based on the results of periodic HIV antibody survey using blood samples taken from a cross-section of pregnant women attending public antenatal clinics. This study further reveals that virtually every estimate regarding HIV & AIDS that has ever been put forward by the WHO or UNAIDS is based on mathematical computer projections using data from these surveys.[19] The renowned Nigerian AIDS 'dissident', Dr. Ojei denies the existence of AIDS. This Nigerian scientist claims that, although AIDS might exist, it is not caused by HIV and might not be a sexually transmitted disease. He believes that AIDS is yet another international political ploy to decimate Africa's population. This belief is with reference to the efforts of ex-President Thabo Mbeki of South Africa, who sponsored experiments in 1999 to isolate HIV which experts have not been able to accomplish. [20]

A case reported by Family Health International reveals that use of condoms among male youths in Anambra State, Nigeria, is not a priority in attempts at reducing HIV infection because they generally view AIDS as the "Whiteman's" disease and nothing new. The fact that there are pockets of resistance to the HIV/AIDS hypothesis, may well mean that target audiences of HIV communication may have some difficulty believing HIV & AIDS media campaign messages, if they are aware of and believe such lines of debate. [21]

Communication is among the chief measures needed to check the spread of HIV. Beyond a few remarkable successes in the area of creating awareness through HIV & AIDS media campaigns, the overall picture of tackling this pandemic, through communication-based interventions, is not encouraging. [22] The fact that there are over 35 million people globally, living with HIV in 2013 alone, seems to attest to some extent, that HIV & AIDS communication may not have been very successful in tackling this pandemic. In the light of this gloomy picture, the question is: could the target audience's belief in HIV & AIDS controversies be a determinant of their response to HIV & AIDS communication? Could this be contributory to negative response to HIV messages and, consequently, the rising AIDS statistics, especially in sub-Saharan Africa, in spite of determined efforts at communication interventions?

Purpose: HIV & AIDS communication has a target audience. The response of this audience in line with the intention of the HIV message could determine the success of the communication intervention. The purpose of this study was to investigate the possibility that the target audience of HIV & AIDS communication in Nigeria could be aware of, and believe in the HIV & AIDS controversies; and that this belief could exert negatory influence on their beliefs about, and response to, mediated HIV & AIDS messages.

In line with this purpose, the study sought answers to the following questions:

- 1: Is the target audience of HIV & AIDS communication in Southeastern Nigeria exposed to media campaigns on HIV & AIDS, and does it have knowledge of HIV & AIDS?
- 2: Is it aware of the controversies around HIV & AIDS?
- 3: Does it believe in the controversies around HIV & AIDS, and, does this belief influence what it believes about media HIV & AIDS campaign messages?

Theoretical Orientation

According to the Health Belief Model (HBM), individuals take health actions because of certain health beliefs – perceived susceptibility, perceived severity and perceived benefits. [23] In line with the HBM, it is expected that members of the target audience of HIV & AIDS communications who take health actions in line with the HIV messages could do so because of perceived susceptibility, perceived severity and perceived benefits. On the contrary, those who believe in the HIV & AIDS controversies and consequently do not take health actions as recommended by HIV & AIDS media campaign messages, apparently, neither believe they are susceptible to HIV infection, nor believe that the severity of contracting the virus is worth taking preventive action.

Two hypotheses were formulated against the backdrop of the literature on HIV & AIDS controversies and the HBM:

H₁: Target audience of HIV & AIDS communication who are highly exposed to media campaign messages on HIV & AIDS are more likely to have higher knowledge of HIV & AIDS

H₂: Target audience of HIV & AIDS communication who believe in the HIV & AIDS controversies are unlikely to believe media HIV & AIDS campaign messages.

II. Method

This study was designed as a survey. The suitability of this design was informed by the need to examine many variables; which also entailed the use of multivariate statistics. Surveys were conducted among undergraduate students (age 16-27), in government-owned universities in Nigeria’s southeast. The Southeast was chosen just to showcase what obtains in a particular Nigerian geopolitical zone. The belief was that further studies could be conducted in other geopolitical zones in replication of this study. Undergraduate students had been chosen because they are categorized as youth and a vulnerable group; and, as audience and participants in communication exchanges, they are deemed very critical in HIV prevention.

All the undergraduate students, in all the government-owned universities in the Southeast, about 284,520, make up the study population. These government-owned universities are: Abia State University, Uturu; Anambra State University, Uli; Ebonyi State University, Abakaliki; Enugu State University of Science and Technology, Enugu; Imo State University, Owerri; Federal University of Technology, Owerri; Michael Okpara University of Agriculture, Umudike; Nnamdi Azikiwe University, Awka, and University of Nigeria, Nsukka.

A study sample of 500 undergraduate students (arrived at using Taro Yamane’s formula for calculating sample size: $n = N/1+N(e)^2$) was drawn from the population of study. Multistage sampling procedure was used to select the universities, faculties, departments and levels of study. Overall, one hundred students per institution were selected from each of the five selected institutions used in this study, giving a total of 500 students. These had the questionnaire administered to them.

Survey data collected were in regard to the respondents’ dependency on the media for news and information as well as information on HIV & AIDS; exposure to media HIV & AIDS campaign messages; knowledge of HIV & AIDS; awareness of HIV & AIDS controversies; believability of HIV & AIDS controversies and believability of media HIV & AIDS campaign messages.

III. Results

The first research question sought to know whether the target audience was exposed to media campaigns on HIV & AIDS and have knowledge of HIV & AIDS. The respondents’ level of exposure to the various media campaigns on HIV & AIDS was moderately high at 57 percent; while the level of knowledge about HIV & AIDS stood at 97 percent. The picture here implies that the respondents were not only exposed to the various media campaigns on HIV & AIDS but they were also knowledgeable about HIV & AIDS. The second research question looked at the students’ awareness of HIV & AIDS controversies. The measuring index shows that 46 percent of the respondents had moderate scores. This suggests that a fairly significant number among the respondents were aware of the controversies.

Table 1: Believability of HIV & AIDS Controversies

Response	HIV & AIDS is Myth	HIV & AIDS Whiteman’s population control	Antiretroviral drugs indeed cause AIDS	HIV & AIDS invented by Western pharmaceuticals	HIV-positive test is false positive test	AIDS victims survive without antiretroviral drugs	AIDS is survivable once substance abuse is halted
Believe	10%	11%	17%	11%	34%	29%	56%
Don't Believe	90%	89%	83%	89%	66%	71%	44%
Total	100% (N=471)	100% (N=464)	100% (N=465)	100% (N=466)	100% (N=461)	100% (N=469)	100% (N=465)

Table 2: Believability of Media HIV & AIDS Campaign Messages

Response	Media campaign “HIV/AIDS is Real” is mere noisemaking	“Know Your HIV Status” media campaign is needless	Media campaign on VCT is a ploy to sustain Western commercial interests	Media campaigns promoting condoms are mere marketing strategy	Media campaigns promoting antiretroviral drugs help to promote AIDS deaths	Media campaigns ABC & Zip-Up are mere propaganda	Media campaign “AIDS Kills” is a big lie
Believe	9%	9%	14%	12%	17%	12%	17%
Don't Believe	91%	91%	86%	88%	83%	88%	83%
Total	100% (N=471)	100% (N=471)	100% (N=470)	100% (N=469)	100% (N=469)	100% (N=472)	100% (N=471)

The third research question looked at the believability of HIV & AIDS controversies in relation to believability of media HIV & AIDS campaign messages. According to Tables 1 & 2, Three fourths of the respondents did not believe in the controversies; and two-thirds believe media HIV & AIDS campaigns are factual.

IV. Hypothesis Testing

The first hypothesis proposed that a highly exposed target audience would more likely have higher knowledge of HIV & AIDS. Chi-square tests reveal a statistically significant relationship at .006 level, between the audience's level of exposure to HIV & AIDS media campaigns and their level of knowledge of HIV & AIDS. The inference here is that the audience's knowledge of HIV & AIDS could be as a result of their level of exposure to media campaigns on HIV & AIDS. The findings of the study therefore support the first hypothesis.

The second hypothesis, which is key to the study, proposed that if the target audience believes in HIV controversies then they are unlikely to believe media campaigns on HIV & AIDS.

Table 3:
Zero Order Correlation Matrix for Some Major Demographic, Media and HIV-Related Variables Studied

Zero Order		1	2	3	4	5	6	7
1	Parent's Highest qualification	-	.000	-.004	-.048	-.109*	-.126*	-.082
2	Level of Exposure to media Campaigns		-	.076	.140**	.047	.036	.109*
3	Level of Knowledge of HIV/AIDS			-	-.028	.235**	-.277**	-.142**
4	Level of Awareness of HIV/AIDS controversies				-	.432***	.256***	.145**
5	Level of believability of HIV/AIDS controversies					-	.683***	.118*
6	Level of believability of media HIV/AIDS campaign messages						-	.158**
7	Age							-

Correlation analysis in Table 3 shows a statistically significant correlation ($r = .683$) between level of believability of HIV & AIDS controversies and level of believability of media HIV & AIDS campaign messages. This suggests that there is a relationship between what the respondents believe about the controversies and what they believe about media HIV & AIDS campaign messages. Since three fourths of the respondents did not believe in the controversies; and two-thirds believe media HIV & AIDS campaigns are factual, this relationship would mean that the respondents who did not believe in the HIV & AIDS controversies invariably believe that media HIV & AIDS campaign messages state the fact. This result does not support the second hypothesis.

V. Discussion Of Findings

The data analyzed in this study was obtained from 500 undergraduate students spread across five universities in Southeastern Nigeria. The overall results offer a wide range of conclusions.

The key conclusion from the findings of the study is that the young, urbanite, undergraduate students surveyed, are moderately aware of the HIV & AIDS controversies, but this does not substantially induce belief in these controversies, nor does it have negatory influence on what they believe about HIV & AIDS media campaign messages.

This would suggest that the respondents were more responsive to media HIV & AIDS campaign messages than HIV & AIDS controversies. This might be because these campaign messages appeal to their health beliefs. The campaign message, "AIDS no dey Show for Face; Please Protect Yourself" (which means you cannot tell someone has AIDS by looking at them), suggests susceptibility [23] to a deadly disease and the need to protect oneself. Therefore, regardless of what HIV & AIDS controversies hold, the target audience might believe they could get infected and for that reason they would actively consider taking health actions along the line prescribed by media HIV & AIDS campaign messages.

Similarly, the campaign that says: "AIDS Kills" smacks of severity. [23] Seeing television footages of AIDS victims could make these respondents believe that AIDS kills and that the consequence of contracting HIV is significant enough to try to avoid getting infected, even though HIV controversies hold HIV & AIDS as mere myth.

It is interesting to note that this study found a high level of believability of the various HIV & AIDS controversies among 24 percent of the respondents, on the average. This percentage appears to offer a significant lead that should warrant further research to establish if there are appreciable variations in other contexts.

The findings of this study also show that some of the respondents believed that HIV & AIDS media campaign messages do not state the facts. This goes the gamut of a low of nine percent among the respondents who believe that the media campaign message “HIV/AIDS is Real”, is mere noise-making to a high of 17 percent among the respondents who believe that the media campaign message “AIDS Kills” is a big lie. Could this stance have been influenced by awareness and belief in the contentions of AIDS “denialists” that there is no scientific basis for a deadly virus “HIV” which causes the disease “AIDS”? Further research might reveal.

VI. Conclusion

These other findings highlight the potential negating impact HIV & AIDS controversies could exert on HIV & AIDS communication interventions. This is especially corroborated by the possibilities revealed in the study that believability of media HIV & AIDS campaigns could be influenced by HIV controversies; the consequence of which could be negative HIV & AIDS statistics, like a high HIV sero-prevalence.

Overall, the findings of this research could help raise the question: what does the body of HIV & AIDS research know about the possibility that belief of HIV & AIDS controversies could negate the positive outcome of HIV & AIDS communication?

VII. Recommendations

This study recommends that there should be an honest effort on the part of all stakeholders to come clean on the issues around HIV & AIDS. For instance, is it a medical fact that the test for HIV infection is highly inaccurate? Are antiretroviral drugs indeed poisonous? Does HIV have the capability to cause AIDS? Is there any truth in the conspiracy theory about HIV & AIDS? These controversies should be addressed by the scientific community and policy makers, once and for all, in the interest of the public. Kenyan Nobel laureate, Maatha Wangari expressed some concern when she asked the question “Why has there been so much secrecy about AIDS? When you ask: where did the virus come from, it raises a lot of flags. That makes me ‘suspicious’”. [24] This could be the genuine suspicion of most people. And the issue needs to be addressed.

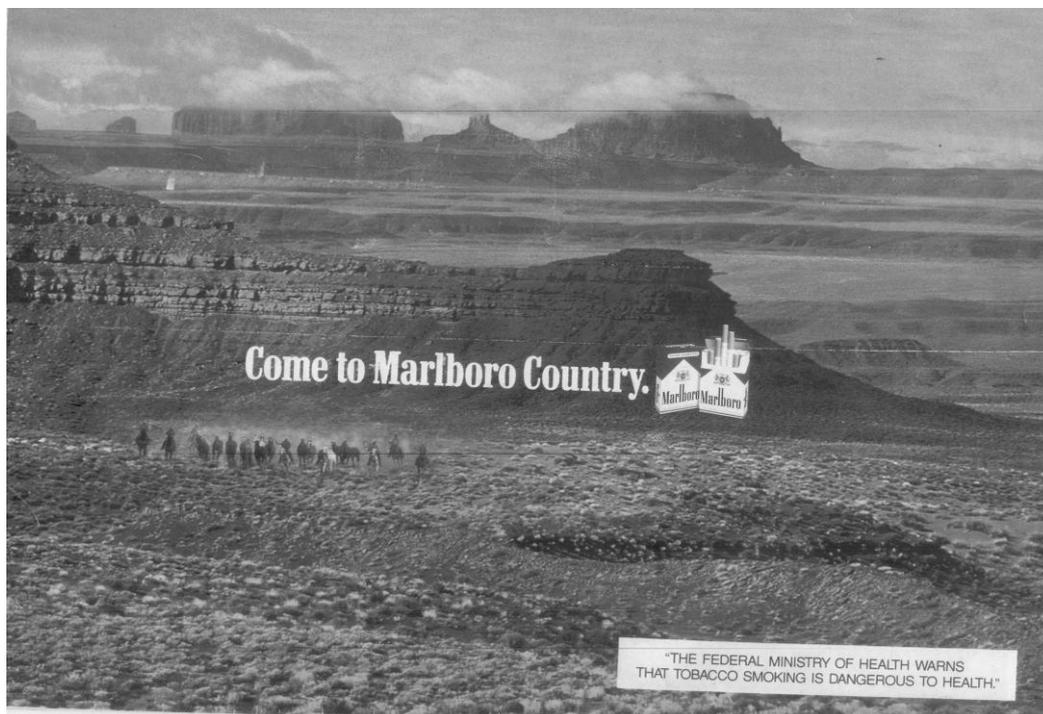


Figure 1. Tobacco Advertising

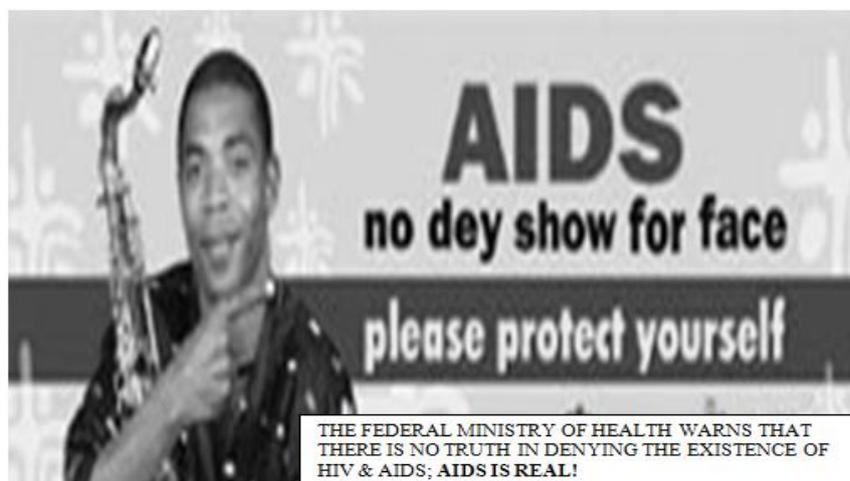


Figure 2. AIDS billboard campaign, by IRIN

Secondly, as is reflected in Figs 1 & 2, counter-campaigns could be factored into HIV & AIDS media campaigns. The main message in the Marlboro ad is invitational: **“COME TO MARLBORO COUNTRY.”** This message serves the interest of the sponsor. But the fact that it has been medically proven that tobacco intake can cause serious health problems like lung disease complications, cancer, etc., the government demands that a caveat: **“The Federal Ministry Of Health Warns That Tobacco Smoking Is Dangerous To Health”**, Should Accompany The Main Message To Warn Prospective Buyers Of The Inherent Danger Associated With Smoking. For Hiv & Aids Media Campaigns, The Caveat Could Read Something Like: **“The Federal Ministry Of Health Warns That There Is No Truth In Denying The Existence Of Hiv & Aids; Aids Is Real!”** This Counter Message, run on billboards, in radio jingles, television campaigns, Internet campaigns or campaigns on the pages of newspapers and magazines, would serve to warn the target audience about the falsity of the controversies swirling around the issue of HIV & AIDS. This way, the threat of HIV controversies undermining the goals of HIV & AIDS communication, could be considerably contained, especially in such areas where it has been noticed that people subscribe to HIV controversies.

References

- [1]. C. Maggiore, What if everything you thought you knew about AIDS was wrong? (Studio City, California: The American Foundation for AIDS Alternative., 2000)
- [2]. J. Lauritsen, History of the controversy, Rethinking AIDS conference, Oakland, California, 2009.
- [3]. D.Gutierrez., Scientists allege fraud in 1984 HIV/AIDS papers. NaturalNews.com. Retrieved from http://www.naturalnews.com/025787_fraud_HIV_AIDS.html, November 2014
- [4]. T.C. Smith, and S.P. Novella, HIV denial in the Internet era., PLOS Med, 4 (8), 2007, 256.
- [5]. Joint United Nations Programme on HIV/AIDS/World Health Organization; Report on the Global AIDS Epidemic, 2006.
- [6]. B. Leung,.. House of Numbers [Documentary film] (United States: MGM Studios Inc.2009).
- [7]. S.C. Kalichman, Denying AIDS: Conspiracy theories, pseudoscience and human tragedy (Connecticut: Copernicus Books, 2009).
- [8]. UNAIDS Global HIV/AIDS Statistics , retrieved from http://issuu.com/unaid/docs/unaid_global_report_2013_en?e=2251159/4942523 November, 2014
- [9]. Joint United Nations Programme on HIV/AIDS; Report on the Global AIDS Epidemic, 2010.
- [10]. CIA Fact book, 2012
- [11]. [P. H. Duesberg, Inventing the AIDS Virus (Washington: Regency Publishing Inc., 1996)
- [12]. A. Charles, What causes AIDS? Reason, June , 1994.
- [13]. Biotechnology & Bioengineering June 1993, 42,(2), 49-465.
- [14]. A. Liversidge, The limits of science. The Cultural Studies Times, Fall 1995
- [15]. S. Lanka, HIV: Reality or Artifact? The Continuum April/May 1995.
- [16]. N. Hodgkinson., Eight years ago I went through the same experience, New African [viewpoint] December 6 2000.
- [17]. R.A. Giraldo, AIDS and Stressors II: A proposal for the pathogenesis of AIDS, AIDS and Stressors, 1997, 57-96.
- [18]. R.A. Giraldo.,E. Michael, F. Celia., J. Barnett., F. Weiss, R. Buianouckas, T.,DiFerdinando, V. Ray., and A. Edward, Is it rational treatment to prevent AIDS with toxic antiretroviral drugs in pregnant women, infants, children, and anybody else? Continuum, summer 1999.
- [19]. R. Richards, False positive HIV testing, retrieved from <http://www.rethinkingaids.com/GalloRebuttal/RR-SA-Stats2.html>, October 2014.
- [20]. M.A. Ajila., C.O.Ajila.,D.O. Adeyemo, and A.A. Owojori, An assessment of the role of school counselors in preventing HIV/AIDS among secondary school students in Osun state, Nigeria. Bangladesh e-journal of Sociology, 6 (2), 2009, 64.
- [21]. Family Health International (FHI), 2001.
- [22]. Panos Report 2003
- [23]. K. Glanz, B.K.Rimer, and F.M. Lewis, Health behavior and health education. theory, research and practice (San Fransisco: Wiley & Sons, 2002)
- [24]. W. Maatha., Was AIDS a bioweapon created to exterminate the black race? Medical Issues Conspiracies. Retrieved from <http://www.abovetopsecret.com/forum/thread201079/pg1>, October 2014.