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# Prevention is better than Cure- AIDS: A Short Review

**Mujahid Mohammed* and Farah Ghani**

Department of Animal Science, Hyderabad Central University, India

***Corresponding author:** Mujahid Mohammed, Hyderabad Central University, Gachibowli, Hyderabad, Telangana, India, Tel: +919533310779; E-mail: mujahid.1567@outlook.com

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## Abstract

**Acquired Immune Deficiency Syndrome (AIDS) was first described but undiscoverable its clinical entity in 1981 in which the goal remains the same, though at first lifestyle and behavioural factors were hypo the sized to be causally related, finally in 1983 the HIV was identified as the true cause of AIDS. Since the first identity approach to HIV infection shows a divergence in structure and its pathogenesis still emerges as an HIV epidemic and so far resulted in 70 million infections and 35 million deaths in the developed and under developing countries around the globe. HIV infection increases the risk of several autoimmune diseases; the most frequent damages concern the several other organs are the concern. As for as concern on the antiviral therapy and condoms can help to reduce the immunological impact of the disease but it brings up uncountable disadvantages—not the least of which is that they are also good job at which they were originally developed, namely contraception. For those who wish to have children, condoms thus pose a dilemmatic situation. So two recent pieces of news, one scientific and one administrative, are particularly welcome the present review article focus on the prevention is better than cure most deadly disease in the globe to overcome.**

***Keywords:*** ***AIDS***

## Introduction

### History

AIDS and HIV epidemic began with illness, fear and leads to the death of an individual. However, the development of highly effective antiviral drugs represented a major turning point by allowing people living long and healthy lives even though infected with HIV diseases [1-5]. It is widely believed that HIV originated in Kinshasa, in the Democratic Republic of Congo around 1920 when HIV species intertwine from chimpanzees to humans. Until the 1980s, we do not know how many people developed HIV or AIDS. HIV was unknown and transmission was not accompanied by noticeable signs or symptoms. While sporadic instances of AIDS were documented prior to 1970, available data suggests that the current epidemic started in the mid- to the late 1970s [6-12]. Several Open access journals on the se topic provide more visibility and accessibility to the readers in gaining the required information of the present scenario and other ongoing researches all over the world, which are being exhibited through open access journals, serve as the main source of information in various field.

**Researching Support**

By 1980, HIV has already spread to several countries (America, Brazil, England, Africa countries, Australia). In the over a period of decade about 100,000 and 300,000 people could have been infected [12-19]. Several societies like Australian Federation of AIDS Organisation stared with a vision "*Working together to defeat HIV and new HIV infections in Australia, Asia and the Pacific*' were part of a wider trial to investigate the efficacy of the virus and preventing loss of human and helping them to overcome psychologically and providing information government authority[20-26]. Whole blood from survivors thought to contain antibodies specific to the disease is injected into patients in the active phase of infection. This is believed to supplement or kick-start the patient's own immune system production against the HIV proteins. In Jan 1983, AIDS was reported that female partners of males who were diagnose suggested that it would be passed on via heterosexual sex and after some unique information gathering by CDC identified all major routes of transmission and ruled out transmission by casual contact such as sharing food with the infected person, drinking water, air or surfaces[27-35].

**Research Society**

In recent years, a number of multi-site RCTs of promising biomedical/technological interventions for HIV prevention, such as microbicides, vaccines, and the female diaphragm, have yielded either null or negative findings. In 1995, Ministry of Health Community Development, Gender, Elderly and Children, Tanzania has started a society PMTCT Tanzania to started to provide up to data information on mother-to-child transmission of HIV (MTCT), HIV early infant diagnosis[36-45]. The society PMTCT Tanzania became an international symbol of AIDS awareness in Tanzania. PMTCT Tanzania and Australian Federation of AIDS Organisation is collaborating with several conferences for example like OMICS conferences which provides perfect platform for global networking as it brings together renowned speakers and scientists across the globe. That is, there was no difference between experimental and control groups with respect to HIV infection rates or, in a couple of cases, participants in the experimental arm appeared to have higher rates of infection than those in the control [46-52].

Perhaps most notably on the research front, basic biomedical researchers now regularly commune with clinical trials researchers and behavioral interventionists – and, once in a while, even social scientists – in interdisciplinary discussions of HIV prevention topics. Certainly, there are still separate scientific meetings and journals for various disciplines and approaches, but increasingly, there are also mixed conferences and publications, with a great deal more crosstalk than occurred in the first two decades of the response [53-65]. In November 15$^{th}$, 2015 the 3$^{rd}$ International Conference on HIV/AIDS, STDs & STIs in Hilton Atlanta Airport, Atlanta organized with a theme "*Raising Global Awareness on STD/AIDS and Fighting the Stigma Surrounding the Disease".* As a result, the HIV prevention field as a whole has come to recognize that HIV is fundamentally a pathogen that is transmitted in the course of human relationships that occur and are influenced by social and cultural contexts, and that targeting only one aspect of the interacting biological, behavioral, and social features of HIV/AIDS will have limited effect [32, 39,66-75]. In October 03, 2016 4$^{th}$ International Conference on HIV/AIDS, STDs and STIs Florida, USA with a theme "*The search for a cure*" with good number keynote speaker discussed about the search for a cure.

Timothy Fouts is one of the Founders and Principle Scientists at Profectus Bio Sciences Inc presented his work with a title "*The balance of cellular and humoral immunity determines the level of protection offered by an HIV vaccine in macaque models of HIV infection*" at 3$^{rd}$International Conference on HIV/AIDS, STDs & STIs vaccine outcomes raise a host of questions whose answers will affect the ability to conduct future, successful HIV prevention trials, including: how is null and negative findings communicated to and understood by trial participants and other members of their communities? [77-82]. How can expectations about optimal trial results are managed? How, in the face of disappointing – and even harmful –

findings, can support for HIV prevention trials be maintained among communities and funders? Does a null result in a large trial of a particular product (e.g., the latex diaphragm) doom that product for any subsequent trials, even if the finding may be a result of uptake of risk reduction behaviors among all trial participants rather than product non-efficacy? If so, will we ever truly be able to know if the product itself is effective; and might we be running the risk of ruling out a potentially efficacious product [83-91]. Edward M Kian is the renowned member of Welch-Bridgewater Endowed Chair of Sports Media in the School of Media and Strategic Communications, Oklahoma State University, USA presented his abstract with a title *"The world has changed in 25 years: Re-examining media framing of Magic Johnson living with HIV-AIDS*" discussed the how the world media tickled when highly professional basketball player lived with HIV[92-99].

**A Need for a Discussion**

Open Access literature assumes a key role in proving the information and current researchers across the world. Journal of Virology and Antiviral Research has especially publishing interesting article on Human immunodeficiency virus types1 (HIV-1) mother-to- child transmission occurs at a rate of more than 30% and is the predominant cause of AIDS in children. Several maternal factors including advanced clinical stages, low CD4 lymphocyte counts, and high viral load, immune response, and disease progression have been implicated in an increased risk of vertical transmission. Journal of AIDS & Clinical Research is a peer reviewed open access journal whose follows rigorous double blind review process and focusing on articles related to HIV and AIDS both clinical & medical research and published the papers on specific topic on Co-infections: HIV as a Special edition of its Volume 3[100-110]. In addition, Journal of Antivirals & Antiretrovirals has been discussing about drugs and development of HIV and the transmission of a major and multiple genotypes have been suggesting the analysis of other regions of HIV - 1 genome, shows a high conservation of intact and functional gag p17 and NC, pol RT, tat, rev, vif, vpr, vpu, and nef open reading frames (ORFs) the following mother - to - child trans mission.

Moreover, the Nafees Ahmad is currently a Professor and Chair of Immunobiology Department at the University of Arizona, USA, serving as an Editorial board member of a journal of virology and antiviral research. His central research interest is the study of how social and cultural forces shape the behaviours that place individuals at higher risk for disease outcomes. Professor Nafees Ahmad began work in 1984 on the AIDS Research Project, one of the first longitudinal studies of AIDS risk taking behaviours in the world. Since that time he has published over 120 scientific papers and Professor Abdul A Waheed, [11,45,66,111-118] is particularly proud of his record of collaborative research conducted with AIDS community-based organisations, which include a broad range of organisations within the United States and abroad. We should target the properties of transmitting viruses and those that are associated with disease progression in the development of effective and better treatment.

In HIV prevention science, the randomised controlled trial (RCT) with an HIV incidence, outcome measure remains the gold standard method for establishing efficacy among the biomedical community. But its hegemony is being challenged by social scientists who argue that experimental methods often are not appropriate for addressing social-level questions. Norman D Goldstuck speaks out his view about the prevention of HIV with a title "*The Role of Adult Male Circumcision in the Prevention of HIV/AIDS- Does the Technique Make a Difference?*"[119-125] in his review article presented about the Does, Adult Male Circumcision is a technique to the prevention of HIV. They also note that declining HIV infection rates observed over the course of the pandemic in a number of diverse settings (e.g., San Francisco, Thailand, Uganda, and Senegal) resulted from community-driven behavioural and social change, not from experimental interventions, and that such community-

generated responses do offer observational evidence of effectiveness – even if it is not entirely clear to what specific c actions the declining infection rates may be attributed [126-135].

Arthur Horton from Lewis University came out with research article examines a possible success story in coping with the epidemic as found in the decrease of the HIV/ AIDS death rates for the city of Chicago with a title "*AIDS in Black America: A Study of the City of Chicago*". So, while RCTs remains valid and necessary for assessing the efficacy of some types of HIV prevention strategies, they will never produce the entirety of relevant evidence of what actually works in different modes, populations, and setting [136-145].

## Conclusion

To be sure, we need rigorous research, value for money, and international coordination. However, the commitment to tackle AIDS will permit us not alone to contend HIV in those were already infected with it but also to place the utmost effort in seeking to protect future generations from this major scourge of humankind. It could also provide the information crucial to arrest and future vaccine policies and classification along with the distribution of HIV genotypes and the biological and public health implications of genetic variability of this deadly pathogen. Maybe, may not be sure that we able provide upcoming generation to be HIV free world unless we take precaution [3,9,145-151].

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