

Expanding the Role of Pre-Marital HIV Screening: Way Forward for Zero New Infection

Sujith Kumar Manakandan, Rosnah Sutan

Department of Community Health, Medical Faculty, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia

Email: rosnah_sutan@yahoo.com

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Abstract

Pre-marital HIV screening is one of many initiatives taken by various worldwide countries to combat the fast spreading of HIV infections. In Malaysia, it was initially started in the year 2001 in Johor state the southern zone of Malaysia and subsequently with the collaboration of the Department of the Islamic Religious Affairs; it was made mandatory for all prospective Muslim couples. The main objective of this mandatory pre-marital HIV screening test was an early detection and appropriate management. Although the aim was beneficial, but there are still certain limitations, such as lack of confidentiality, stigmatization and termination of proposed marriage. Furthermore, there is obvious under-reporting of HIV cases among non-Muslims due to poor attendance at voluntary HIV screening. A small change in the existing policies may benefit this current program.

Keywords

Pre-Marital HIV Screening, HIV-AIDS, Sexual Transmission

1. Introduction

HIV/AIDS is a lifestyle related condition which is considered as a global pandemic disease. Globally, there are 34 million people affected by HIV, whereby 17.2 million are men, 16.8 million are women and 3.4 million are aged below 15 years. Compared to the year 2005, there was a reduction of about 0.4 million in 2010 in terms of people who died due to AIDS [1]. There is significant evidence of morbidity and mortality associated with this disease, whereby it decreases the life expectancy of a diseased person and contributes to increased number of orphaned children. Adding to that, this disease also creates a storm in health care systems and contributes towards economic and political inequality. The volume of people who are living with HIV worldwide continued to increase in 2008, reaching towards 33.4 million [2]. The main method of transmission of this disease is through sexual contact, intravenous drug injection and some cas-

es of vertical transmission from mother to child during child birth and subsequently during breast feeding in developing countries [3]. Through these various methods, HIV continues to spread globally, mainly in developing countries and Asia has become an epidemic port for its transmission [1].

In order to prevent this, countries have taken sound measurements and various initiatives as established by The Centers for Disease Control and Prevention (CDC) who has launched the Expanded Testing Initiative (ETI) program [4]. There were 3 programs that been launched in 2007 by CDC: 1) *PS 07-768 Expanded and Integrated Human Immunodeficiency Virus (HIV) Testing for Populations Disproportionately Affected by HIV, Primarily African American*, 2) *PS10-10138: Expanded Human Immunodeficiency Virus (HIV) Testing for Disproportionately Affected Populations* (2010-2011), 3) *PS12-1201: Comprehensive Human Immunodeficiency Virus (HIV) Prevention Programs for Health Departments* (2012-2017). Another initiative is offering the pre-marital HIV screening for the yet-to-be married couples. In accordance to an article published by the Open Society Institute of the USA in the year 2010 [5], there are about 26 countries which are practicing pre-marital HIV screening with certain clause and terms in accordance to their cultural and legal views. In south-east Asia, countries such as Malaysia, Singapore, Thailand and Cambodia also have set their own way of conducting this test. Present research reviews existing published pre-marital HIV screening program particularly in Malaysia and proposed recommendation for expanded scope.

2. Global Concern

Globally, there are about 26 countries which are conducting pre-marital screening test for HIV for their citizens. Increasing worldwide prevalence and mortality among the young couples are the main reasons for this initiative. In the year of 2010, there are about 250,000 deaths are reported in the countries across the Asia with men being the highest risk in transmitting via sexual intercourse [1] [6]. According to a report by World Health Organization (WHO), about 34 million people are affected by HIV, whereby 10% of them are children less than 15 years old [1] [7] [8]. These innocent children are getting this infection from their mother via vertical transmission (from mother to fetus). Hence, the WHO recommends voluntary screening program and counselling in countries with high HIV prevalence [9]. Over the decades, HIV testing among the public have evolved from being clustered among the high risk population to a broader voluntary counselling and testing (VCT) group. At the beginning stage, as recommended by the WHO, VCT purely remained as a voluntary program, whereby anyone can visit the health facility to screen for their status. There are three key principles of HIV testing which to be followed are consent to testing, counselling is provided pre and post testing and the results are kept confidential [5]. Later on, few countries modified this VCT program, whereby these countries have made pre-marital HIV screening as a compulsory test for the pre-married couples which is parallel to the 2012 World Health Organization “*Guidance on Couples HIV Testing and Counselling Including Antiretroviral therapy for Treatment and Prevention in Sero-discordant Couples*”. This is recommended to all couples in order to identify, increase uptake and compliance to antiretroviral treatment (ART) [10].

Countries like Bahrain, Guinea, UAE, Saudi Arabia, India, China, Uzbekistan and Ethiopia have enacted national laws and policies mandating pre-marital HIV screening. Certain African countries such as Burundi, Congo, Ghana, Kenya, Nigeria, Tanzania and Uganda are using the church administration to conduct this test. Similarly, in the Middle East, this screening test is conducted in the mosques and it is the mandatory pre-requisite test for issuing a marriage certificate [11].

3. Situation in Malaysia

Since the first case of HIV/AIDS in 1986 up to December 2014, as many as 105,189 people have been diagnosed with HIV, with 21,384 AIDS and 17,096 deaths due to HIV/AIDS [12]. According to data for year 2014, about 1,439,855 men and women aged 15 and above had received HIV test and counseling and know the result, out of which 1321 (0.09%) were HIV positive [12]. Statistics also showed that men (89%) are being predominantly at high risk group compared to women [12] (Figure 1). During this period, almost 50% reduction of new cases was able to achieved (from 28.4 per 100,000 populations in 2002 to 11.7 cases per 100,000 populations in 2014). Earlier years, it was Intravenous Drug Abusers (IVDU) was the key driven factor, but however this trend has changed over time due to the harm reduction programs by the government since 2005. The current mode of spread shifted from IVDU to more sexual transmission, with reduction of ration from 3.9 in 2000 to 0.2 in 2014 [12]. The most sickening part is the youngsters between 13 - 29 years old are contributing about 34% of reported HIV/AIDS cases in the country, which are mainly women in their twenties [12].

In order to reduce the risk of transmission among the citizens, the government under the HIV/Sexual Transmitted Illnesses (STI) unit (Disease Control Division) has taken various programs and initiatives, mainly the HIV screening program. In Malaysia, the program was implemented way back in 1985, during the epidemic era. Since then, all government health facilities (2836 health clinics & 143 hospitals inclusive of non-MOH hospitals) are providing free HIV screening [12]. The ministry encourages a voluntary, ethical and globally accepted approach for the screening. Among the line, HIV screening of all donated blood, blood products and organs, ante-natal screening, inmates in the prison and drug rehabilitation centers, TB and STD cases were made mandatory

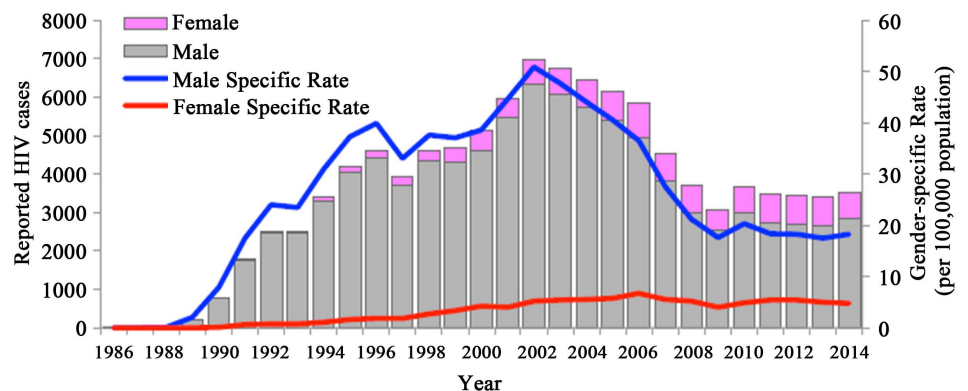


Figure 1. Reported HIV cases in Malaysia from 1996-2014 by gender. (Source: Ministry of Health Malaysia. Global AIDS Response Progress Report 2015.)

[13]. The latest addition to this compulsory list is the premarital HIV screening for the Muslim couples.

4. Evolution of Pre-Marital HIV Screening in Malaysia

This initiative was first launched in the state of Johor (southern zone of Malaysia) in 2001. Following the first case detection in 1989 until the end of 2001 (prior to premarital HIV screening was began), there were total of 8656 HIV cases, which is about 19.5% of the total cases reported nationwide [14]. HIV infection in Johor which was initially secluded among the IVDU group later spreads further to their sexual partners and eventually to their children. The main drawback in tackling HIV at that early stage were individuals were asymptomatic and are often not diagnosed [14]. Apart from that, the mode of transmission due to sexual activities among heterosexuals was on the higher note with 25.5% increase in 2001 compared to the previous year. Addition to it, HIV cases among the ante-natal mothers have also been on the rise. So, as to put a check to this, the Johor-state health department together with the Johor state Islamic Council had made HIV screening test compulsory in November 2001 for all Muslim couples who are about to get married. This was incorporated in the marriage application forms. This initiative was started among the Muslim community due to the high number of HIV cases (75.3%) in 2001 were detected among them. Subsequently, by the year of 2007, via Department of Islamic Religious Affairs (JAKIM), this initiative was expanded throughout all the states in Malaysia [15]. The main aim of this program was to detect the HIV cases as early as possible for the appropriate management and certainly not to stop the marriages. This test was made compulsory for all Muslims who are intend to get married and the pre-marital HIV screening also is available for general public regardless of their religion background, but on voluntary basis. As the effect of this nationwide screening, by the end of 2014, a total of 1321 (0.09%) cases were detected out of 1,439,855 successful screenings [12].

5. The Pre-Marital HIV Screening Program

Pre-marital HIV screening is done to detect the HIV status and subsequently to prevent transmission to their respective partner by health counselling, education and further treatment. It is offered in all the government health clinics at zero cost. The result of the test is confidential and will only be disclosed only to the couple. Although the mandatory ruling is only applicable for the Muslim couples, the test is highly recommended for the other ethnic group. The couple will be registered at the counter and will be given the pre-screening counselling. Later their blood will be drawn and subjected for Rapid Kit Test. The result will be available within minutes and the couple will be referred to the doctor to review the result. If the result is negative, the doctor will authorize it and the couple may proceed back to the Religious Department for the rest of the procedure. But, in case the result turn out to be positive for either any of them, a confirmatory HIV test will be done and if the second test become positive again, the couple will be referred to the Family Health Physician for further counselling and management. The patient will be followed up regularly at the clinic, and if the couple is planning to get married, further counselling on minimizing the transmission to the partner, condom usage,

ante-natal screening and visits scheduling, mode of delivery and the baby will be followed up too in order to prevent further transmission and complications [16].

Overall, pre-marital HIV screening has brought a tremendous effect to the detection of the cases and aids the management in order to prevent further complications. Comparatively, it has reduced the HIV positivity rate among the ante-natal mothers. This suggests that an early detection of HIV infection had taken place. The early identification followed by counselling gives the HIV positive couple to make a sound decision prior to marital agreement and subsequently helps in term of their management and to anticipate an appropriate management for their future children. Apart from that this program has increased the awareness among the youngsters and is considered as one of the effective measures in early detection of HIV for the Prevention of Maternal to Child Transmission (PMTCT) program [12]. In Malaysia, the PMTCT has been implemented since 1998 by preventing vertical transmission. The HIV positive mothers were given antiretroviral therapy, ART prophylaxis to HIV exposed babies and provision of free formula feeding to these babies, spouses counseling and routine PCR test screening [12]. It was reported tremendous improvement from 49.7% (year 1998) to 100% (year 2014) [12].

6. Program Acceptability

Numerous studies have been conducted through-out the world on acceptability and benefit of pre-marital HIV screening test, revealing important issues, both positive and negatives [9]. There are many reasons being listed out to make this pre-marital HIV screening as a mandatory test. This screening, apart from reducing the burden of disease, reducing HIV cases among mothers and helps in PMTCT program [14], it also reduce the budget allocation for HIV cases, whereby reduce in HIV cases will decrease the treatment cause. According to a study conducted in the USA, about \$70,000 to \$127,000 can be saved if one HIV infection is prevented [9]. Worldwide, the majority of proponents believe that compulsory pre-marital HIV screening is necessary in order to identify serodiscordant couples and prevent them from tying the knot [5]. Their argument is that the screening will prevent the further transmission of HIV and will cluster the disease within their own cohort. They also claim that this strict rule will encourage the youngsters to well-behave and practice abstinence prior to marriage, which indirectly slows down the further spread of the disease. Apart from that, there are some women's organizations and mother's group is giving full support to this mandatory screening. They believe that this will protect their community from the disease upon marriage, especially in certain societies whereby women are powerless in selecting her spouse, negotiate the timing of sex or insisting her partner for condom usage [17].

Even though this mandatory test is welcomed by most of the countries and society, there are still few debatable arguments regarding the acceptability of this screening test. The main concern is the breach of internationally guaranteed human rights, especially when the marriage is opposed upon the positivity of the test. Lack of confidentiality is another concerned drawback of this mandatory pre-marital HIV screening. This confidentiality possibly be compromised or breached when the either party is proven to be HIV positive and that person's test results are handled by more than a single individual,

from the various health authorities to the religious department staffs. In addition to it, a marriage in a Muslim culture will only be possible with the consent from the bride's father, who might want to know the HIV status [18]. This can inadvertently spread among the relatives, families and community, which may lead to the cancellation of the proposed marriage.

7. Discussion and Recommendation

Over these years, the pre-marital HIV screening program has been a good platform to create awareness among the young Muslim couples. This program is better than the existing ante-natal HIV screening due to its early detection and subsequently prevents the maternal to child HIV transmission [14]. Apart from that, this program may prevent further transmission by practicing precaution steps between the couples. However, one should also consider that this HIV testing is only a one-off test and having tested negative for HIV will not guarantee the future exposure risk.

The Malaysian AIDS Council (MAC) through their report mentioned that the highest percentage of HIV infection were detected in Malay community, which contributed to 70% from the total HIV cases in Malaysia [19]. This figure will certainly give an idea that HIV infection is highly prevalent among Malays whom most of them are belongs to Muslim community. However, it does not mean that the incidence is lower among non-Muslim community. The HIV infections among Muslims are easily detected compared to other community is mainly due to the compulsory pre-marital screening program for the Muslims. Although a voluntary, anonymous HIV screening test is available to all in the primary care clinics, but the response are not very encouraging [18]. Unlike Muslim couples, the non-Muslims have no compulsion for the test unless they voluntarily get themselves screened. Therefore, the low incidence of HIV cases among non-Muslims could be due to an under-reporting phenomenon.

The major reason for poor participation could be attributed towards the limitation within the current practice of pre-marital screening program itself. Involving too many health personnel and religious officers may not earn the trust of the customers. The fear of breach of confidentiality is more compared to the eagerness to know the HIV status. This may deviate from the actual aim of this pre-marital screening program. A little but impactful modification can be done by limiting the number of health care staffs involved or introducing a designated health care staff to handle the test. The HIV status need not to be disclosed to the religious authorities and only a notification whether or not the test was done is sufficient for them. This issue should be address immediately and made the public aware of the full confidentiality of the result status. This will certainly raise the public's confidence level.

Meanwhile, there are cases where couples who are tested positive for HIV are forbidden from entering into wedlock, especially when it involves the parents and relatives. Usually their concern will be the future and the probable risk of transmission to the couples' off springs. They should know that the risk of transmission is preventable with an early detection and early Anti-retroviral treatment (ART) commencement [20]. The public should be made aware of this in order to reduce the stigmatization. In the meantime, the counselling session should be conducted in casual, open minded and friendly manner rather than being judgmental to call off the planned wedding. It should

educate the couples on safe sex, ways of minimizing the spread, treatment options, compliance to medication and follow up visits; pregnancy planning, child delivery and management options in order for the couples to lead a wonderful and safe live as any other non-HIV couples.

Religious Department and officers also can play a major role by suggesting the mosques to give talks, seminars or “*Khutbah*” during the Friday prayers in order to create more awareness. The topic should not only focus on danger of HIV or sex abstinence but also should touch upon HIV friendly public and abolishing stigmatization.

Public health officers and scholars also can give their commitments in managing this issue. They can conduct more research and study with regards to this particular topic of pre-marital HIV screening. This can be covered by collecting the appropriate data on the details of this mandatory pre-marital HIV screening, the impact given by the existing program, investigate the confidentiality level, reliability of the working staff, their professionalism, training for the counsellors. The research also should reveal the outcome of this screening program, such as the volume of the cases, risk behavior, the marriage outcome, the effect to the women and the spread rate towards the spouse and children.

Finally, it is recommended for the government to expand this mandatory pre-marital HIV screening for prospective non-Muslim couples. Couples will get more opportunity if they come forward to the clinic for screening in preparation for safer pregnancy in future. Many non-communicable disease screening can be offer such as hypertension and Diabetes which is known in increasing trend and potential risk such as unhealthy behavior like smoking and obesity can be offer for health intervention concurrently. Although it may cause a contentious debate in the society, this initiative will synergistically address the under-reporting phenomenon and reduced HIV transmission rate among non-Muslim couples. However, prior to its implementation, the public need to be educated and made aware of this program’s overall objective which is not to prevent the marriage or promote stigmatization, but to know the status and seek for better management options.

8. Conclusion

Overall, pre-marital HIV screening test definitely will bring more benefits to the individual couples, family, society, and ultimately reduce the spread of the disease if proper evaluation and minor changes are applied to the current existing policies. This test needs to be made mandatory not only to the Muslim couples but to all the citizens of Malaysia who wish to get married in order to achieve more healthy outcome with regard to HIV prevention.

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Declaration

Author(s) declare that all works are original and this manuscript has not been pub-

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Authors' Contribution

Author 1: Conceptualizing of the idea, literature review, drafting the final manuscript.

Author 2: Advised during manuscript preparation, reviewed the final draft and work for publication.

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Abbreviations

HIV: Human Immunodeficiency Virus
WHO: World Health Organization
VCT: Voluntary Counselling and Testing
MAC: Malaysian AIDS Council
ART: Antiretroviral Treatment
PMTCT: Prevention of Maternal to Child Transmission
JAKIM: Department of Islamic Religious Affairs
STI: Sexual Transmitted Illnesses
AIDS: Acquired Immune Deficiency Syndrome
TB: Tuberculosis
PCR: Polymerase Chain Reaction



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