RELIGIOUS MANDATORY PREMARITAL HIV TESTING; ASSESSMENT OF PERCEPTIONS ON ETHICAL CONCERNS AMONG HEALTHCARE WORKERS IN KWAEBIBIREM

Asare BA[1]; Asare G[2]

[1]Kwaebibirem Municipal Health Directorate, Kade, Eastern Region; [2]Kade Government Hospital, Kade, Kwaebibirem, Eastern Region.

Abstract

Objective: This cross-sectional survey describes healthcare workers' (HCWs') perceptions on religious mandatory premarital HIV testing- (RMPmHT) associated ethical concerns.

Methodology: An online survey was completed with an e-questionnaire, circulated via WhatsApp, (a freeware, centralized instant messaging cross-platform). This involved 530 participants and data were descriptively analyzed using Epi info 3.5.1.

Results: The findings illustrate that HCWs, mostly aged 30 or younger with a mean age of 30.4 (±7.2), were largely familiar with RMPmHT, (58.5%). Despite general acceptance, disclosing positive results to RO leadership was widely discouraged. HCWs considered RMPmHT non-intrusive, yet paradoxically believed it increased the risk of stigmatization. Despite an unclear ethical paradigm and state silence on RMPmHT, HCWs didn't see knowledge of a positive result as a 'right' for RO leadership. Policy frameworks for 'medico-legal' permission and result disclosure were seen as ambiguous. Concerns about fragile confidentiality structures persist, and the prohibition of marriages for HIV-positive or RMPmHT-dissenting couples was widely deprecated.

Conclusion: RMPmHT, tenably, infringes upon the right to marry and found a family, bodily integrity, privacy, and information as negative results may subtly be a precondition for marriage. Advocacy for the need to situate RMPmHT in a clear ethical paradigm remains imperative. Policy frameworks guiding documentation of consent processes, HIV couple discordancy, counselling, information, disclosure, data management and linking RMPmHT services to public health institutions should be engendered.

Key words: *Mandatory, premarital, HIV, testing, Ethics, religious*

Introduction

Religious organizations (RO) and governments in various countries have, over the years, implemented Mandatory Premarital HIV Testing (MPmHT) programs as part of their efforts to control HIV infection. It is a common practice to link positive test results with the prohibition of marriage[1]. Besides infringing upon the human rights of people living with HIV (PLHIV), this practice threatens three key principles of HIV testing: free consent, pre- and post-test counseling, and the confidentiality of test results[1]. Within the context of social determinants influencing HIV infection and the broader social impact of the pandemic, ethical questions, inherently interconnected, present numerous challenging complexities[2]. The four pillars of medical ethics—autonomy, non-maleficence, beneficence, and justice—constitute overarching principles that, nonetheless, permit interpretation and judgment in specific cases[2].

Mandatory HIV testing, frequently characterized by unclear pathways for voluntary consent and its imposition as a prerequisite for accessing civil or social benefits, is subtly discouraged by policies governing HIV control[2]. Current efforts to enhance the utilization of testing services are generating ethical concerns, notably stemming from the increasing emphasis on 'opt-out' approaches, which exhibit marginal yet notable distinctions from coercive methods [2]. MPmHT is globally promoted, notwithstanding its limited attention in the field of bioethics literature[3]. The expansion of testing opportunities is crucial for disease control, even in the presence of an ambiguous ethical framework. HIV testing is primarily provided before marriage, during childbirth, and during any hospital visit [3]. The relatively neglected subject of MPmHT, often characterized by undocumented procedures, exists within a realm of obscurity [3]. Civil rights groups have raised human rights concerns about prohibiting marriage for those with positive HIV test results.[3,4].

Understanding contextual distinctions between Premarital HIV Testing (PmHT) policies therefore remains essential[5]. The ambiguous use of the terms 'voluntary,' 'mandatory,' and 'compulsory' in reference to testing modalities often leads to an incomplete understanding of the distinctions between them, further blurring their individual ethical significance.[5]. The terms 'voluntary' and 'compulsory' pertain to the methods of offering testing, generating results, and disclosing those results. It's important to note that while testing itself can be voluntary, the possession of test results may be mandatory as a prerequisite for accessing certain civil or social benefits[5]. Voluntary Pre-marital

Corresponding Author: **Dr. Brainard A. Asare**
Kwaebibirem Municipal Health Directorate, P. O. Box 114, Kade, Eastern Region, Ghana
Email Address: brainardasare@gmail.com
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HIV Testing (VPmHT), equivalent to Voluntary Counseling and Testing (VCT), includes various methods for testing individuals intending to marry. MPmHT, on the other hand, pertains to policies where a negative test result is *prerequisite* for accessing civil, social, and/or religious benefits, such as marriage, immigration, employment, etc.[5]. Mandatory' is therefore not synonymous with 'compulsory' testing. Both VPmHT and MPmHT involve diverse approaches to disclosing and maintaining the confidentiality of results. This survey examines the ethical concerns of MPmHT from the perspective of Healthcare Workers (HCWs), with a focus on religious MPmHT (RMPmHT).

Materials and Methods

Study Site and Design

This descriptive online survey involved the administration of a self-administered, structured, pretested electronic questionnaire (or e-questionnaire) to a total of 530 HCWs in the Kwaebibirem Municipal area of the Eastern administrative Region of Ghana. The preferred administration of e-questionnaires via WhatsApp, initially due to COVID-19 safety concerns, offered advantages like convenience, cost-effectiveness, data handling efficiency, eco-friendliness, and accessibility. This approach ensured data security, flexibility, and ease of data importation for analysis, making it a robust choice for this survey beyond pandemic-related considerations. The e-questionnaire was distributed as a link accessible on smartphones with internet connectivity. Participants were provided with comprehensive information about their right to participate or decline without coercion prior to accessing the e-questionnaire. The participant pool included HCWs from the Kwaebibirem Municipal area, covering the municipal hospital, four health centers, and twenty-nine CHPS compounds. Convenience sampling was used, allowing all willing HCWs to participate. This approach was preferred as the number of HCWs approximately matched the sample size. Including other districts for probability sampling was avoided to prevent administrative challenges.

The e-questionnaire, following pre-testing in the Upper West Akyem and Denkyembuor districts, was subsequently distributed to HCWs in Kwaebibirem via the WhatsApp smart mobile phone application. The contact information for HCWs was obtained from the administrative units of both the Kade Government Hospital and the Kwaebibirem Municipal Health Directorate. Before distributing the e-questionnaire link, prospective participants were individually contacted via phone by the principal investigator, who is also a HCW known to all. The calls began with a brief self-introduction by the principal investigator, followed by a concise explanation of the survey's purpose, objectives, and participation criteria. Participants were informed of their right to decline participation at any stage of the e-questionnaire process. A scanned letter emphasizing this right was sent with the e-questionnaire link to consenting HCWs. The e-questionnaire did not include personal information like names and residential addresses that could identify participants. Although all questionnaires were returned, the lack of uniform responses led to inconsistent subgroup totals in the subgroup analysis.

We utilized the Likert Scale to assess participants' agreement or disagreement levels with hypothetical scenarios related to RMPmHT. In this survey, the term 'healthcare workers (HCWs)' was operationally defined broadly to include all Ghana Health Service staff in Kwaebibirem working across different health facilities. However, specific categories of employees, including janitorial services, drivers, morgue attendants, and security guards, were excluded from the survey. This decision was grounded in the assumption that their educational backgrounds might pose challenges for self-administration of the e-questionnaire. Moreover, their exclusion aimed to mitigate potential researcher bias when interpreting questions for HCWs incapable of self-administration. This particular group of HCWs was also observed to be less active on the few WhatsApp groups to which they belong. The survey participants primarily comprised government hospital staff directly or indirectly involved in clinical service delivery. This included personnel from various clinical units, such as doctors, nurses, and midwives, as well as staff from pharmacy, administration, finance, records, National Health Insurance Vetting, and X-ray departments. Participants associated with the municipal health directorate included personnel from all lower-level health facilities. This included HCWs engaged in both clinical and preventive health service delivery, along with administrative staff at the municipal health directorate. The primary focus of the e-questionnaire was to gather information on participants' age, gender, and their general familiarity with RMPmHT. The e-questionnaire also incorporated hypothetical scenarios designed to solicit participants' opinions regarding their willingness to disclose positive results of PmHT to RO leadership. These scenarios aimed to assess HCWs' perspectives on linking PmHT results to marriage without obtaining prior full individual consent for testing. Additionally, the survey aimed to capture HCWs' opinions on the fundamental distinctions between coercion and mandatory testing.

Ethical Consideration

Approval for the execution of the study was obtained from the Ethical Review Committee of the Ghana Health Service – Research and Development Division (GHS-ERC:029/10/23).

Data Analysis

We performed descriptive data analysis using Epi Info version 3.5.1 to calculate the frequency and percentage distribution of all variables. The results, primarily expressed as proportions and arithmetic means with associated standard deviations, were presented in tabular formats.

Results

The age distribution among HCWs spanned from 21 to 60 years. The mean age of the entire cohort was 30.4 years (±7.2), with a variance of 52.44. Predominantly, HCWs fell within the age range of 20-30 years, followed by those aged 31-40 years, and a notable minority comprising individuals aged 41 years and older. Marital status analysis revealed that the majority of HCWs were single, followed by those who were married or cohabiting, with a notable proportion being divorced. A substantial majority of HCWs expressed familiarity with RMPmHT, indicating it was consistently considered a prerequisite for marriage in their respective ROs. Most HCWs identified as Christian, while a minority adhered to Islam, and a smaller portion subscribed to other religions. Table 1

Table 1 Evaluation of demographic characteristics and awareness of religious mandatory premarital HIV testing among healthcare workers

Characteristic	Frequency – N (%)
Age group	
≤ 30 years	344 (65.6)
31-40 years	140 (26.7)
41-50 years	22 (4.2)
≥ 51 years	18 (3.4)
Marital status	
Married/cohabitation	209 (39.5)
Single	308 (58.2)
Divorced	12 (2.3)
Familiarity with RMPmHT	
Yes	307 (58.5)
No	218 (41.5)
Religion	
Christian	484 (92.0)
Muslim	40 (7.6)
Other	2 (0.4)

RMPmHT – Religious mandatory premarital HIV testing, RO – Religious Organization Source: ©Authors survey, 2024

The communication of a potentially positive RMPmHT result to Religious Organization (RO) leadership was largely discouraged. Despite an unclear ethical framework, the majority of respondents strongly advocated for the continuation of PmHT before marriage. RMPmHT was commonly characterized as inherently non-intrusive and non-coercive, subtly implying an endorsement for its promotion. The hypothetical assertion that RO leadership had the 'right' to be informed about a member's PmHT result was generally met with resistance. A modest majority indicated discomfort with the prospect of remaining in their RO of affiliation in the event of a positive RMPmHT result. National policy frameworks outlining the medico-legal permissions for conducting tests and accessing test results for Voluntary Counseling and Testing (VCT), Voluntary Pre-Marital Health Testing (VPmHT), Mandatory Pre-Marital Health Testing (MPmHT or RMPmHT) were perceived to be absent.

HCWs expressed a notable observation that the state maintained a conspicuous silence on matters related to RMPmHT. The vast majority voiced concerns, indicating that RO leadership's attitudes toward members with positive RMPmHT results could inadvertently lead to subtle or overt scorn, and technically, stigmatization. Moreover, respondents overwhelmingly believed that the eventual unauthorized disclosure of RMPmHT positive results by RO leadership to other RO members and/or non-members was likely to transpire over time. This suggested a perception that RO leadership might eventually fail to maintain confidentiality regarding a member's positive status, anticipating that it would inevitably become public knowledge at some point.Table 2

Table 2.0: Healthcare workers' general opinions on religious mandatory premarital HIV testing and preferred responses to a hypothetical positive test result

Characteristic	Frequency – N (%)	
	Yes	No
Positive test result - leaders should be informed	191 (36.0)	339 (64.0)
Should premarital HIV testing be discontinued	149 (29.9)	350 (70.1)
Test regardless of couple’s willingness	359 (67.9)	170 (32.1)
Premarital HIV testing is coercion	211 (40.5)	310 (59.5)
Marriage should be permissible in the absence of testing	198 (37.9)	324 (62.1)
Information about results is a leaders’ ‘right”	120 (22.8)	406 (77.2)
Positive result - leadership’s confidentiality assured	99 (18.9)	426 (81.1)
Positive result - Leadership will never stigmatize	90 (17.9)	412 (82.1)
Positive result - would still attend religious organization	291 (56.8)	221 (43.2)
Clear policy - permission to test/know results	127 (24.8)	386 (75.2)
Do you know who is permitted to test/know results?	193 (37.8)	318 (62.2)
Religious HIV testing is inconspicuous in Ghana	316 (63.2)	184 (36.8)
Preferred individual actions to a hypothetically positive religious mandatory premarital HIV test result		
Stay but no tell anyone	153 (28.9)	377 (71.1)
Leave the religious organization	58 (10.9)	472 (89.1)
Stay and tell the leadership	66 (12.5)	464 (87.5)
Loose interest in the marriage	101 (19.1)	429 (80.9)
Marry outside of the religious organization	92 (17.4)	438 (82.6)
Tell my partner	280 (52.8)	250 (47.2)
I don’t know	27 (5.1)	503 (94.9)

Source: ©Authors survey, 2024

HCWs exhibited diverse individual reactions to the hypothetical scenario of a positive RMPmHT result, with the majority expressing their intention to inform

their partners, irrespective of their partners' test results, among other potential responses. [Table 3.0]
A proclivity for a voluntary approach to PmHT is evident, juxtaposed against the current mandatory framework. HCWs posit that ROs should solicit the preferences of prospective couples regarding their inclination to undergo PmHT. It is emphasized that dissent, within a voluntary framework, expressed by either partner, should not precipitate impediments to the marriage approval process by the respective ROs. HCWs predominantly advocate for a delimited dissemination of RMPmHT results exclusively to the prospective marital couple, precluding disclosure to RO leadership. The prevailing recommendation underscores that ROs should ascertain the couples' voluntary willingness to partake in testing, with the resultant test outcomes reserved for the exclusive knowledge of the implicated individuals. Table 4

Table 3.0: Healthcare workers' perspectives on marriage officiation and confidentiality of religious mandatory premarital HIV test results

Characteristic	Frequency – N (%)	
	Marry irrespective of result	Only couple to know result
Strongly disagree	59 (11.7)	34 (6.8)
Somewhat disagree	18 (3.6)	11 (2.2)
Neither agree nor disagree	25 (4.9)	17 (3.4)
Somewhat agree	90 (17.8)	62 (12.3)
Strongly agree	314 (62.1)	379 (93.2)

Source: ©Authors survey, 2024

Table 4.0: Healthcare workers' perspectives on the efficacy and ethical implications of religious mandatory premarital HIV testing: 'effective for infection control' vs. 'fraught with ethical concerns

Characteristic	Frequency – N (%)
Efficacy of religious mandatory premarital HIV testing for HIV infection control – "it is good for infection control"	
Strongly Agree	368 (70.50)
Agree	95 (18.20)
Neutral	46 (8.80)
Disagree	4 (0.80)
No Opinion	9 (1.70)
Perspectives on the ethical implications of mandatory premarital HIV testing – "it is fraught with ethical concerns"	
Strongly disagree	209 (40.3)
Somewhat disagree	40 (7.7)
Neither agree nor disagree	25 (4.8)
Somewhat agree	98 (18.9)
Strongly agree	147 (28.3)

Source: ©Authors survey, 2024

The practice of RMPmHT was predominantly characterized as a commendable measure believed to hold the potential for augmenting HIV infection control. However, divergent viewpoints were expressed by some, indicating dissenting perspectives on the matter.

The majority of HCWs appraised RMPmHT as a routine procedure without notable ethical concerns. Consequently, in their evaluations, they commonly regarded it as both 'acceptable' and 'necessary.

Discussion

The promotion and extensive adoption of MPmHT by RO or RMPmHT, persist, notwithstanding its limited scrutiny within the bioethics literature[3-5]. Although these policies may appear to enhance the utilization of HIV services, they are commonly instituted in areas where HIV/AIDS is highly stigmatized, leading to significant ethical considerations that are subject to extensive debate[5]. MPmHT is implemented and sanctioned in Bahrain, Guinea, the United Arab Emirates, and Saudi Arabia, within the framework of both moral principles and legal provisions[6]. Local governments and legislatures oversee its implementation in five Indian states, specific regions of China, and designated areas of Ethiopia. In Uzbekistan, premarital consultation is mandatory, while PmHT remains optional[6]. Although national health guidelines in numerous countries advocate for voluntary HIV testing, churches in African nations like Burundi, the Democratic Republic of Congo, Ghana, Kenya, Nigeria, Tanzania, and Uganda have instituted MPmHT. Notably, in Ghana, the national government stands as the sole entity among these nations to have achieved successful collaboration with local RO in the promotion of PmHT. Nevertheless, data from Ghana highlights the persistent de facto compulsory nature of PmHT[6].

The age characteristics of HCWs in this survey exhibited a correlation with the results of a cross-sectional survey conducted among health professionals in Ghana. The latter survey focused on assessing health service activity standards and standard workloads for primary healthcare[7]. HCWs predominantly conveyed their disapproval regarding the hypothetical disclosure of positive results from RMPmHT to RO leadership. Their reservations were grounded in perceptions of fragile confidentiality structures. Existing literature further highlights concerns about the efficacy of RMPmHT in ensuring informed consent, safeguarding result confidentiality, and delivering sufficient counseling and information[6]. International guidelines on HIV/AIDS and human rights categorize breaches of confidentiality as violations of fundamental human rights, encompassing bodily integrity, privacy, and the right to information. These guidelines underscore obligations to uphold physical privacy, secure informed consent, and guarantee the confidentiality of an individual's HIV status information. HCWs notably expressed a preference for RMPmHT results to be disclosed exclusively between prospective marriage partners, rather than to RO leadership. Their preference aligns with a scenario wherein couples would be asked about their comfort with sharing results exclusively

between themselves, without divulging them to RO leadership.

In the hypothetical scenario of testing positive for HIV during RMPmHT, HCWs expressed a preference to maintain distance from their affiliated RO. This inclination arose from concerns related to the perceived fragility and lack of clarity in mechanisms for maintaining confidentiality. Varied RMPmHT practices exist, with some prioritizing the disclosure of test results by health professionals directly to RO marriage committees, while others opt for disclosure to RO leadership or state authorities for the purpose of issuing marriage licenses[8]. In this context, HCWs voiced disagreement with the hypothetical assertion that RO leadership inherently possess the 'right' to access RMPmHT results. Ghana's National HIV/AIDS policy emphasizes the necessity of offering universally available, easily accessible, high-quality, and confidential VCT services[9]. The legal and ethical guidelines that govern the disclosure of HIV test results specify that health and social welfare workers are prohibited from divulging any confidential information to any third party without the explicit consent of the client[9]. Disclosure is permitted under certain circumstances when, guided by the professional's informed judgment, it is either authorized by the law or deemed to be in the best interests of the client, their spouse, other supportive family members, or another individual involved in the client's care[9].

The National Workplace HIV/AIDS Policy (2004) unequivocally upholds the principles of privacy and confidentiality, explicitly guarding against disclosure without informed consent unless mandated by the law. This exception notably extends to disclosure to HCWs directly involved in the provision of care, where knowledge of the individual's HIV status is deemed essential for informed clinical decision-making[10, 11]. The disclosure modalities of RMPmHT results demonstrate variation. In Burundi, couples typically undergo testing together and share their results with each other, consistently avoiding disclosure to RO leadership. These practices align with the preferences of HCWs in this survey. In specific regions of the Democratic Republic of Congo (DRC) and Uganda, the results of RMPmHT are transmitted to the RO leadership before being shared with the couples. In Malaysia, where RMPmHT is mandated by the state government's religious department, the results are jointly disclosed to couples. Meanwhile, the disclosure practices in Kenya remain unclear[6]. In this survey, RMPmHT was generally not perceived as intrusive or coercive by HCWs.

MPmHT policies are also seen as potential instruments for empowering women by ensuring equal testing opportunities. In specific instances, such as Senegal in 2003, women's groups endorsed PmHT for women to ascertain their prospective husbands' HIV statuses. However, these policies, while theoretically fair and empowering, may still lead to practical unfairness due to their interaction with existing social inequalities[6]. This stance indirectly underscores a potential lack of awareness regarding the imperative to eradicate all forms of coercion from PmHT. The Ghana National HIV/AIDS policy (2019) explicitly opposes the imposition of mandatory medical services as a prerequisite for employment, enrollment into educational institutions, or marriage[9]. The World Health Organization (WHO) and UNAIDS strongly condemn coercive and intrusive methods for HIV testing, emphasizing that the decision to undergo testing should be an individual choice rather than one influenced by doctors, partners/spouses, family members, employers, or other external parties[12-14]. In this survey, HCWs consistently viewed RMPmHT as an 'acceptable' practice. This aligns with a study examining attitudes toward RMPmHT among unmarried youths in Ibadan Northwest Local Government Area, Nigeria. Furthermore, it corresponds with a news report on the BBC that shed light on instances where Nigerian ROs appeared to exert pressure on individuals to disclose their RMPmHT results to RO leadership[15, 16].

HCWs expressed the view that national policy frameworks governing the authorization to request, conduct, and access HIV test results were deficient. They also noted a prevailing silence on matters related to RMPmHT in state policies. Although legal regulations for HIV testing may be relatively inconspicuous, the 2019 Ghana National HIV and AIDS Policy, aimed at achieving universal access to prevention, treatment, and care, and the 2013 Ghana National HIV and AIDS, STI Policy, exemplify restrictions on the disclosure of test results[9,17]. The unregulated acquisition or utilization of test kits, as emphasized in contemporary literature, substantiates the alleged policy gap in HCWs ethical considerations. This underscores the need for additional scrutiny and discussion within the realm of bioethical discourse[18,19]. The overarching concerns expressed by HCWs indicated that divulging RMPmHT results to RO leadership might lead to subtle or overt 'scorn' from the ROs. This aligns with existing evidence suggesting that positive MPmHT results amplify the risk of stigmatization[5]. Despite the ethical ambiguities surrounding RMPmHT, the majority of HCWs categorized it as a 'best practice' for HIV control. However, contemporary evidence challenges the effectiveness of RMPmHT in HIV control, characterizing it as 'vacillating' primarily due to its significant independence from collaboration with public health institutions[5]. The practice additionally reinforces religious prohibitions and echoes intuitive claims of its effectiveness, as it is often implemented with minimal evaluation and monitoring mechanisms in place to measure their impact [5].

HCWs strongly advocated for a reevaluation of RMPmHT, proposing its separation from the disclosure of results to RO leadership and from marriage considerations. In 2004, Albania contemplated a draft amendment to its Family Code, which would have

mandated PmHT and barred individuals with HIV/AIDS from marrying. Despite facing opposition from legal and humanitarian organizations, the amendment did not pass. It is noteworthy that the lack of practical 'opt-out' avenues render RMPmHT de facto compulsory[5]. Any PmHT service that makes negative results a prerequisite for accessing civil, social, or religious benefits infringes upon internationally guaranteed inalienable human rights. RMPmHT, characterized by fragile structures for informed consent, confidentiality, and inadequate access to counseling and information, arguably encroaches upon rights such as the right to marry and found a family, bodily integrity, privacy, and information[6,9]. Inference drawn from this suggests that a comprehensive, participatory, and objective review of PmHT, including R/MPmHT, is imperative. This review should be conducted with a robust understanding that anti-retroviral medications play a crucial role in predicting a high quality of life[20].

Conclusion

The widespread promotion of RMPmHT in various countries, with limited scrutiny in bioethics literature, requires further evaluation. These policies, aiming to boost HIV service utilization, are implemented in stigmatized areas, raising ethical concerns. HCWs express reservations about RMPmHT's impact on confidentiality, informed consent, and individual rights. They disapprove of disclosing positive results to RO leadership, citing confidentiality concerns. Despite ambiguities, HCWs generally find RMPmHT 'acceptable,' aligning with attitudes in other studies. Concerns about stigmatization, coercion, and human rights violations emphasize the need for a comprehensive review of all PmHT services, including RMPmHT. The complexity and challenges associated with RMPmHT, along with its ethical implications, highlight the need for careful consideration.

Recommendations

Bioethical research on all PmHT services, with larger sample sizes, should be prioritized. Public awareness of inalienable fundamental human rights such as the right to marry and found a family, bodily integrity, privacy, and information should be promoted. The formulation of clear policy frameworks, comprehensively guiding and linking all PmHT procedures to public health services, should be strengthened.

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References

1. Stewart, JM, Thompson K, Rogers C. African American church-based HIV testing and linkage to care: assets, challenges and needs. *Cult, Health Sex*. 2016; 18: 669–681 https://doi.org/10.1080/13691058.2015.1106587
2. Singh Z, Banerjee A. HIV / AIDS: Social and Ethical Issues. *Med J Armed Forces India*. 2004; 60: 107–108. https://doi.org/10.1016/S0377-1237 (04)80096-0
3. Ahmed M, Seid A. Factors associated with premarital HIV testing among married women in Ethiopia. *PloS one*. 2020; 15: e0235830. https://doi.org/10.1371/journal.pone.0235830
4. Goodman RD. In Sickness or In Health: The Right to Marry and the Case of HIV Antibody Testing, https://via.library.depaul.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=2075&context=law-review.
5. Rennie S, Mupenda B. Ethics of mandatory premarital HIV testing in Africa: the case of Goma, Democratic Republic of Congo. *Dev World Bioeth.* 2008;8:126-137. doi: 10.1111/j.1471-8847.2007.00199. x.
6. Mandatory premarital HIV testing: an overview. *IssueLab.* 2009:1-16. https://doi.org/10.48550/issuelab.2009.1
7. Asamani JA, Christmals CD, Reitsma GM. Health service activity standards and standard workloads for primary healthcare in Ghana: a cross-sectional survey of health professionals. *Healthc. (Basel).* 2021;9:332. https://doi.org/10.3390/healthcare903033
8. Barmania S, Aljunid SM. Premarital HIV testing in Malaysia: a qualitative exploratory study on the views of major stakeholders involved in HIV prevention. *BMC Int Health Hum Rights*. 2017; 17:20. doi:10.1186/s12914-017-0120-8
9. Ghana AIDS Commission. National HIV and AIDS Policy: universal access to hiv prevention, treatment, and care services towards ending AIDS as a public health threat. Global Health Prevention. 2019: https://ghanaids.gov.gh/mcadmin/Uploads/nationalHIVandAIDSPolicy.pdf
10. National Tripartite Committee and Ghana AIDS Commission (GAC). National workplace HIV/AIDS Policy [2004]. Ghana, HIV/AIDS, Miscellaneous (circular, directive, legal notice, instruction, etc.). 2004 Dec. ISN: GHA-2004-M-92295. Available from: https://www.ilo.org/dyn/natlex/natlex4.detail?p_isn=92295&p_lang=en
11. Health Policy Plus. Legal Audit Update on HIV Law and Policy in Ghana: A Summary of Developments in Ghanaian HIV and Human Rights Law Since 2010. Washington, DC: Palladium. 2017 p 1-29.
12. World Health Organization. Consolidated guidelines on HIV testing services, 5cs: consent, confidentiality, counselling, correct results and connection. Geneva, Switzerland. 2016 p 1-188

13. UNDP, WAP+, APN+, and SAARCLAW. Protecting the rights of key HIV-affected women and girls in health care settings: A legal scan - Regional report. Bangkok, Thailand. 2013 p 1-74
14. WHO, UNAIDS. Statement on HIV testing services: new opportunities and ongoing challenges. WHO,UNAIDS. 2017 p 1-8.
15. Oyedunni SA, Olumide AA. Attitude towards Mandatory pre-marital HIV testing among unmarried youths in Ibadan Northwest Local Government Area, Nigeria. *Afr J Reprod Health*. 2010;14(1):83-94
16. Andrew G. World AIDS Day 2018: How some Nigerian churches dey use force see couples HIV test result. BBC News Pidgin. 2018: https://www.bbc.com/pidgin/tori-46377505
17. Ghana AIDS Commission. National HIV and AIDS, STI policy. Health Policy Project. 2013: https://www.healthpolicyproject.com/pubs/153_Policyfinal.pdf
18. Luginaah IN, Yiridoe EK, Taabazuing MM. From mandatory to voluntary testing: balancing human rights, religious and cultural values, and HIV/AIDS prevention in Ghana. *Soc Sci Med*. 2005;61:1689–1700. doi: 10.1016/j.socscimed.2005.03.034
19. Akoku DA, Tihnje MA, Tarh EO, Tarkang EE et al. Predictors of willingness to accept pre-marital HIV testing and intention to sero-sort marital partners; risks and consequences: findings from a population-based study in Cameroon. *PLoS One*. 2018;13: e0208890. doi: 10.1371/journal.pone.0208890
20. Onyema OA, Isokon BE. Mandatory premarital HIV/AIDS test and break up of marital engagement among intending couples in some Pentecostal churches in southern senatorial district of Cross River State, Nigeria. *J Soc Sociol Work*. 2017;5:118-127. https://doi.org/10.15640/jssw.v5n2a1