



## Cross Regional Differences in HIV/AIDS Prevalence in Tanzania: How Socioeconomic and Cultural Contexts Affect Perceived Individual and Group Efficacy

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### Abstract

The purpose of this study was to conduct a cross-regional comparative analysis of the cultural, social, and economic differences that influence the HIV/AIDS prevalence as well as the differences in media channels and messages used in the prevention campaigns in two neighboring regions in Tanzania-Singida with one of the lowest (3.3%) and Iringa with one of the highest (9.1%) prevalence in the country. Four focus groups were conducted in each region among both rural and urban areas in the two regions. The findings indicated major differences in tribal composition, cultural, social, and economic factors that influence sexual behaviors in the two regions. Participants also indicated that there were differences in media channels used in the prevention campaigns in the two regions. The findings have practical and theoretical implications for campaign designers, scholars, organizations, and funding agencies in Tanzania in particular and sub-Saharan Africa in general.

### Keywords

Cultural, Social, Economic factors, Sexual behaviors, HIV/AIDS prevention campaigns, Cross-regional differences

### Introduction

Recent scholarship on HIV prevention and education has argued that in the absence of a cure, the most promising strategy for curtailing the prevalence of the disease is to modify the socially and culturally rooted sexual behaviors [1,2]. In fact, sexual behavioral modification has been the most consistent explanation for the decline in HIV/AIDS prevalence in sub-Saharan Africa [3]. For instance, [2] found that changes in sexual behaviors as well as church policy demanding testing couples before marriage has had a significant influence on lowering HIV/AIDS prevalence in Kagera Region in Tanzania.

To date, research conducted in sub-Saharan Africa has focused on HIV prevalence through generalizations across the entire population. However, little has been done to determine the specific social distribution and patterns of HIV prevalence that reflect sexual behavior [4]. Furthermore, few studies have evaluated the predictors of adopting safer sexual behaviors [5]. In addition, other scholars have suggested that social and cultural issues shape sexual behavior and increase the risk of contracting HIV/AIDS [2,6]. These scholars stress the importance of understanding epidemics within their social, political, and economic contexts; therefore, they design interventions that take into account these cultural and social factors. This issue is especially relevant for Tanzania, where there are stark regional differences in HIV/AIDS prevalence rates. For example, 2013 prevalence rates in the regions of Pemba, Arusha and Singida have been as low as 0.4, 3.2 and 3.3 percent, respectively [7]. However, rates are as high as 14.8 and 9.1 percent in Dares Salaam and Iringa regions, respectively [7]. To our knowledge no cross-regional comparative

study has been conducted to analyze the social, cultural, economic, and educational factors that influence HIV/AIDS prevalence in Tanzania as well the differences in media channels and messages used to combat the epidemic.

The purpose of this study is to conduct a cross-regional comparative analysis of the cultural, social, and economic differences that influence HIV/AIDS prevalence in two regions in Tanzania - Singida and Iringa - as well as the cross-regional differences in media channels and messages used to combat the epidemic. By doing so, the study makes a significant contribution of filling this gap and adds to our understanding of the influence of these factors and issues in the regional differences in HIV/AIDS prevalence in Tanzania in particular and in sub-Saharan Africa in general.

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## Literature Review

### Theoretical framework

**Social cognitive theory:** Stemming from social learning theory developed by Miller and Dollard (1941), social cognitive theory was first expanded by Bandura and Walters (1963). Social cognitive theory stipulates that a person's functions are a product of a three-way dynamic where personal, cognitive and environmental factors interact continuously with behavior [8,9]. Regarding human health, [8] asserts that it is a social matter reaching beyond the individual, and that comprehensive health promotion involves changing social systems with widespread effects on human health.

Knowledge of health risks and benefits, together with expected outcomes are preconditions for behavioral change [8,9]. Behavior is also influenced by perceived self-efficacy; for example, a person's belief in their capability to perform the actions necessary to obtain the desired goal [10]. Self-efficacy is largely determined by the level of effort and time that a person invests in order to overcome or modify a behavior [11]. Previous research has shown that perceived self-efficacy affects every phase of personal change [12].

Efficacy is not only constructed on perceptions of personal ability, but also shared beliefs, or perceived collective efficacy [13]. In the case of health promotion and education of HIV/AIDS, [12] posits that "translating health knowledge into effective self-protection against AIDS infection requires social and self-regulative skills and a sense of personal power" to control their behavior (p.26).

Additionally, [8] explains that success is also influenced by environmental factors that facilitate or impede the desired change. Therefore, understanding the context that shapes self and collective efficacy can provide some insight as to how relationships between culture, social status, education, profession, and condom use influence HIV/AIDS prevalence.

Under this theoretical framework research studying HIV prevalence in a specific country or region must analyze the situational context, including culture. Cultural variance among regions - which can be observed in terms of culturally accepted practices - must be factored into campaign design strategies. From the perspective of this theoretical framework, the present study identified and made salient cultural differences between Singida and Iringa that could shed light on why HIV prevalence varies so significantly between two neighboring regions.

### Cross-Cultural context of Tanzania

The cultural context for each HIV epidemic is important to evaluate because each epidemic has a process unique to particular conditions of a country or region. Social stratification specific to Tanzania fosters a dynamic, culture-specific context for the spread of HIV [2,14].

Iringa, in Southern Tanzania, is one of the country's larger regions, which has one of the highest HIV prevalence rates in the nation at 9.1 percent [7]. The two regions closest to Iringa in HIV prevalence are Mbeya at 9.0 and Njombe at 14.8 percent. To date, only a few research studies related to HIV/AIDS have been conducted on the Mbeya, Njombe, and Iringa regions, which are all in southern Tanzania [15-17]. Overall, little research has focused on southern Tanzania.

Rumisha, et al. (2006) [16] conducted focus groups in Iringa and supported the emphasis on how health education should identify and address community needs and socio-cultural barriers, in order to influence behavior modification required for the reduction of new HIV infections in Tanzania. Beliefs and cultural practices that were identified as playing a role in the spread of HIV prevalence included

beliefs in witchcraft, polygamy, widow inheritance, alcoholism, female genital mutilation, and gender inequality. Another belief termed "Ndyamugongo", or "Lugandaganda", refers to the belief that HIV is not a new disease and it was there long ago. This belief results, for many people, in a lack of fear of the disease. Since the goal of the focus group research conducted by [16] was to assess understanding of HIV prevention messages and interpersonal communication between family members, cultural factors impacting message reception were included. For example, a culture-based taboo on father-daughter communication about HIV sexually-related behaviors was discussed, where talking about it is a sign of accusation.

### Research problem

Currently, HIV/AIDS scholarship about Africa is lacking in studies that go beyond the context of a given region, to offer insight into how that region compares to others in the same country. Previous research has reported regional variations in the HIV/AIDS prevalence [18], and analyzed the effect of mass media campaigns on knowledge, condom use, and attitude change about HIV/AIDS in Tanzania [19,20]. However, the current study addresses an important gap in scholarship by offering a cross-regional comparison that specifically addresses social, cultural, and economic factors influencing HIV/AIDS prevalence in Tanzania. In addition the study addresses another important gap by offering cross regional comparison in media channels and messages used to reduce HIV/AIDS prevalence in Tanzania. The study focuses on two neighboring regions - Iringa and Singida. While the former has one of the highest prevalence in Tanzania the latter has one of the lowest. Therefore, the following questions guide the study:

RQ1: What are the regional social-cultural and economic differences that influence the sexual behaviors of the people of Iringa and Singida and consequently HIV/AIDS prevalence?

RQ2: What rural-urban social-cultural and economic differences influence the HIV/AIDS prevalence among these regions?

RQ3: What are the regional differences in the channels and messages used by the organizations that are involved in HIV/AIDS prevention?

## Method

### Sample

Eight focus groups were conducted in the two regions preselected - four in Iringa and four in Singida. The two regions were selected because they are neighbors and yet have varying HIV/AIDS prevalence. In order to capture the rural-urban differences, two focus groups were conducted in urban centers and two in rural areas in each region. In addition, to capture the educational level differences, two focus groups comprised of participants with grade seven and below and two were composed of participants with high school diplomas and above in each region.

In order to recruit and organize focus groups in advance, a university lecturer in Iringa and a non-governmental faith based organization running HIV/AIDS related activities in Singida were contacted. The selection criteria specified for participants were that they should be over 18-years-old and that there were no couples among the participants in the same focus group. The latter was important since the topic involved sensitive information and hence the need for participants to freely give their opinion.

Snowball sampling was used such that those who volunteered to participate could recruit other participants. In Iringa Region there were 24 participants in the focus groups - 8 women and 16 men, which were evenly split to 12 from rural and 12 from urban area. In terms of age distribution, participants ranged from 22 to 59 years of age. In

the case of Singida, there were 23 participants in the focus groups - 11 women and 12 men. Eleven of the participants were from urban and 12 from rural areas. In terms of age distribution, participants ranged from 20 to 63 years.

### Procedures

Prior to participant recruitment, approval was sought and granted by the lead author's university Institutional Review Board (IRB). The recruiters informed participants that participating in the focus groups was voluntary; that no one could be forced to participate; and that they had the right to decline to participate. To ensure confidentiality, no names were used during data collection and analysis. Before the focus groups began, participants signed consent forms and were given rules for discussion. In the focus groups with a lower level of education - grade seven and lower - questions and answers were translated from English to Kiswahili and vice versa by an interpreter. At the end of the focus groups, participants received a monetary incentive to compensate for their time.

### Data analysis

The eight focus groups in question were recorded digitally and then transcribed verbatim before the analysis. Two coders were used to process the obtained data applying a thematic analysis approach. First, the data was split into two datasets (Singida and Iringa), which were independently unitized into sentence-like discrete units ( $N = 309$ ) by two separate coders, based on the research questions to be addressed. The process involved several thorough examinations of the data in order to organize them into related categories that emerged from the data. Second, a meeting was held to secure consistency in naming of emerging themes. Finally, the data sets were exchanged and the themes compared to calculate inter-coder reliability. The results yielded Cohen's kappa scores of 0.755 for Iringa data set and 0.846 for Singida data set which were acceptable for both regions.

### Findings

Focus group analysis revealed several major differences between the Singida and Iringa regions in Tanzania. The demographic information that was collected in focus group interviews is presented first. Next, the findings from the research questions are described in detail.

#### Regional demographic characteristics

Both the Singida and Iringa regions have rural and urban areas, with different languages and demographic information. Focus groups participants discussed these differences as part of the conversation about HIV spread in their regions.

**Singida:** According to the focus group participants from Singida, many languages are spoken in urban areas. Participants identified three languages as the most prominent: Kiswahili, Kinyatoro and Kinyaramba. Participants also indicated that there are three major tribes - Wanyatoro, Wachaga, and Wanyaramba - who live in this region even though there are many other minor ones. Among the highly educated population, the marriage age was perceived to be after 30, while among the lower educated population, it was between 15 to 18 for women and around 20 for men. In the rural area, however, there are only four languages spoken: Kiswahili, Kinyatoro, Kinyaramba and Kisukuma. The presence of only two tribes in rural areas was mentioned by the focus group participants: Wanyatoro and Wanyaramba. Economic activities seem to be reduced to crop growing, animal keeping and small businesses. The marriage age for highly educated people was perceived to be 20 for women and 25 for men. For lower educated people, on the other hand, the ages of 14 to 18 were mentioned as the average for women and 25 for men.

**Iringa:** Iringa is a neighboring region south of Singida, and there seems to be an even bigger diversity of people living in this region.

**Table 1:** Summary of themes associated to regional HIV prevalence.

Themes and sub-themes	Description	Region most prominent in	Location most prominent in
Financial impact	Having little or no income affects sexual behavior	Singida	Rural and urban
Poverty	Poverty drives women to trade sex for money for various reasons	Iringa	Rural and Urban in Singida; urban in Iringa
Idleness	Young men's inability to find a job awards them free time and energy, during which premarital sex and promiscuity is a common distraction	Singida (only)	Urban
Economic activity	Activities such as the transport of goods and construction affect sexual behavior	Iringa	Urban
Alcohol	Frequent alcohol consumption is in direct connection to unprotected sex and promiscuity	Singida	Rural and urban
Sex and youth	Men and women start having sex at a young age; you are considered an adult at 16-years-old	Singida	Rural and urban
Premarital sex	Even though it is prohibited, young man and women engage in premarital sex	Iringa	Rural and Urban
Liberal parenting	Liberal parenting, and lack of supervision over their children leads to sexual experimentation	Iringa	Rural
Media influence	Pop culture (on television) promote premarital sexual activity	Iringa	Rural
Multiple partners	Men (and to a lesser extent women) have multiple sexual partners and engage in unprotected sex	Singida	Rural and urban
Religious influence	Because of religious pressure or education, people are only taught abstinence	Iringa	Rural
Valuing children over marriage	Even unmarried women strive to have children, because otherwise they feel worthless	Iringa	Urban
Lack of education	Lack of sex education put people at risk	Singida	Rural and urban
Misconceptions	Superstitious beliefs (i.e. condoms cause cancer) affect behavior and sexual practices	Iringa	Rural and urban
Risky practices	Practices that may potentially put people at bigger risks from getting infected with HIV virus, such as prostitution and unsanitary health care	Iringa	Urban
Infrequent condom use	General attitude towards condom use is negative (e.g. condoms reduce pleasure, they are uncomfortable using condoms)	Singida	Rural and Urban
Silence	Absence of conversations about sex, as well as the stigma on condoms	Iringa	Rural and urban

For instance, all participants mentioned that English was one of the languages spoken and that people from Europe and the US live in this region which is not the case in the Singida region. In both urban and rural areas, there are many tribes and many languages spoken, some of which are foreign, as mentioned before. This is a major finding as we shall discuss later since it has implications for sexual behaviors as well as HIV/AIDS prevention campaigns. Focus group participants reported that people of high education in urban areas marry at the age of 26 to 34, while those with lower educational status may marry as early as 15 with parental consent. In rural areas, the marriage age for highly educated people was estimated between 25 to 27 and for lower educated it could be as low as 17.

### Thematic analysis

The first research question asked if there are any cultural differences that influence sexual behavior and HIV/AIDS prevalence between Iringa and Singida. The second research question asked about any rural-urban differences in the two regions. To address those two questions, a thematic analysis was conducted in reviewing the transcripts from the participants. The analysis yielded six recurring themes in both regions: the financial influence on sexual behavior, alcohol, sex and youth, multiple partners, infrequent condom use, and lack of education. A single theme, silence, was present only in Iringa. The six themes are presented first followed by the theme that emerged exclusively in focus groups done in Iringa. Table 1 summarizes the themes found and the region in which these themes were most prominent.

### Emerging themes

**Financial influence on sexual behavior:** The first theme that emerged in the Singida region was the impact of low or no income on sexual behavior. On one hand, low economic status of some people, predominantly young women, leads these individuals to have intercourse for some type of financial compensation. There are no perceived differences in this phenomenon between the rural and urban region. As a matter of fact, all participants describe a similar scenario, to this one:

*“The main cause of spreading HIV is economic status. Because you may find someone poor coming to the town to save herself, and then when she moves to the lowest income group, she paying her money for sex and infecting her with HIV”.*

The second factor that the participants mentioned in connection to finances was idleness. Many young men who finish school are unable to find a job, which provides them with a lot of free time and energy that they invest into premarital sex and promiscuity. Idleness, however, only emerged in focus groups conducted in urban Singida.

In Iringa, on the other hand, the theme of financial impact was much more prominent in the urban areas than it was in the rural areas. Two subthemes are present here as well: poverty and links to economic activity. As the participants explained poverty drives women to trade sex for money for various reasons. It might be because they need to feed their children, because their husbands fail to provide income, or because they need to survive. Considering those reasons for trading sex, another finding emerged: sex without a condom was paid more, which may lead women to agree to unprotected sex, possibly resulting in higher rates of HIV transmission. A lower-educated participant from a rural area put it this way”.

*“...You have a partner who says that you have two options: if you go with me with condom I will pay you 5,000 and if you go, [...], but if you go with me the whole night without a condom I'm going to pay you 15,000 [...] Is it possible to leave 15,000 just for fear of HIV while your children are dying of hunger?”*

The second subtheme was related to economic activity. Some of

the factors people relate to the spread of HIV/AIDS are transiting truck drivers, construction workers, and crop traders with money in Iringa town. As one lower educated participant from the rural area said, “there is a saying here: that tomato plus people is equal to HIV in this area”.

**Alcohol:** The second cross-regional theme that emerged in connection to HIV/AIDS was alcohol consumption, which appeared prominently in both rural and urban areas of Singida region. The participants explained that for many people, alcohol consumption is a frequent pastime and is in direct connection to unprotected sex and promiscuity. This issue is perhaps best illustrated through the words of a participant who said:

*“A lot of people engage in sex because of alcoholism. After drinking they can go with anybody, even (...) young women can go with older men (...) and when they're drunk they cannot remember to use a condom, so that spreads HIV/AIDS”.*

In Iringa, the connection with alcohol came up mostly in urban area focus groups, according to which alcoholism is omnipresent and in connection to unprotected sex as well. One highly educated participant reportedly believed that in the region people were overdrinking. The participant said that the biggest business booming in the city was selling alcohol.

**Sex and youth:** The third theme throughout all focus groups in Singida had to do with reaching a certain age. Even though some people said that having premarital sex was not culturally allowed, they also discussed a wide-spread belief that to have sex once you finish the seven primary years of education, or once you reach 16 years of age is acceptable, since that is when you are culturally considered a grown-up.

The connection between youth and sexual behavior was also emphasized in Iringa region focus groups. There were three subthemes that emerged here, however, which are very unique. One issue was premarital sex. Even though tribes prohibit sex before marriage, both boys and girls do it secretly, as a consequence of which many girls get pregnant. Interestingly, the other two subthemes only emerged in rural areas of Iringa. One emphasized liberal parenting due to which children are nowadays free to do whatever they want; and another that discussed the influence of pop culture on premarital sexual activity. As one participant said:

*“...you say that lots of time children are fearful but that practice (...) because if they see people on television kissing, they like it, so they do it. They see that this (...) is so common that anyone knows how to do it, so they practice. Even before primary school, if they see it they want to practice it, and they do”.*

**Multiple partners:** In Singida, the occurrence of multiple partners does not seem to be acceptable for women. Many participants explained that women do not have the option of having multiple partners, because their husbands would divorce them. They also have no say in their husband's adventures since husbands can have multiple partners if they choose. In addition to these factors, the responsibility of using a condom lies on the male partner, and any mention by the female signifies distrust. It is not customary for the woman to ask her partner to wear a condom. This issue seems more emphasized in the urban area, but was mentioned in the rural areas of Singida, as well. On the other hand, husbands or male partners not only have multiple partners in both rural and urban areas, but to have multiple wives and many children is considered to be a privilege.

*“...they prefer to have many wives and to have them around so they can get many children. It's a kind of privilege to have many wives and many children. And it's kind of really cultural. People are kind of used to seeing people getting two or three wives, so it's kind of a normal thing*

to have many wives”.

Hence, it was evident that multiple partners exist in Iringa region, as well, even though they are not considered to be an acceptable form of behavior. What was different from Singida region was that in Iringa it is acceptable for both men and women to have multiple partners. This is another major finding since it has implications on sexual behaviors and prevention campaigns as we shall discuss later.

Apart from taking pride in having many children, there are two related subthemes mentioned in Iringa. The first has to do with religious influence. There seems to be a disparity between the Christian church and the health promotion campaigns that advocate the use of condoms. As one of the highly educated participants from a rural area said, “according to religion, people feel that there are two steps to this: A & B”. Here the participant was referring to the ABC strategy for HIV prevention. The term ABC stands for the abstinence, behavior change, and condom use. This strategy was initiated in Uganda and has been adopted by sexual education campaigns in other countries in sub-Saharan Africa. In this case, the participant referred to how due to religious influence, the only options seem to be abstinence or behavior change. Condom use would not go along with the religious teachings.

The second subtheme that was very prominent in urban areas of Iringa region, in contrast to urban areas in Singida, was the value of children over marriage. In other words, not being married was not as bad as not having children, because with no children you are considered worthless, and probably doomed to a very unpleasant old age, since there are no homes for the elderly in Tanzania. As one participant put it:

*“Let’s say a man dying without a kid in Africa or Iringa is valueless, valueless. (...) He is not valuable. A woman dying without a kid or children also is valueless. So men and women are seeking children in order to increase their value”.*

**Lack of education:** Another theme that emerged in both rural and urban areas of Singida in connection to HIV/AIDS prevalence was lack of education. Again, three subthemes emerged: general lack of education, misconceptions and risky practices. First, without giving any particular details on what that education would consist of, there was a general feeling about lack of education on HIV/AIDS in general and condom use, in particular, as some of the main reasons why people get exposed to HIV/AIDS. The second subtheme was the existence of various misconceptions such as the fact that condoms cause cancer, and that HIV/AIDS is transmitted through the air, or is a consequence of witchcraft.

In Iringa, the urge for better sex education was somewhat evident, especially in rural areas, but not as much as it was emphasized in Singida. This was proportional to the number of HIV prevention messages they were able to describe and talk about. This is another major finding as we shall discuss later.

The theme of combined misconceptions and risky practices that spring from traditional teachings emerged mostly in the focus groups conducted in the urban area of Iringa. They include different cultural stories, myths and cultural concepts, such as the inheritance of wives, which are named as some factors that cause confusion and put people at risk of contracting HIV/AIDS. Some of them were naïve theories attempting to protect young people from diseases, or created to scare people into abstinence. The problem, however, is that they create a false sense of security and insusceptibility. This is another major finding since it has implications for sexual behaviors and HIV/AIDS prevention campaigns as we shall discuss later.

An example of this is “tamborrido”, a term that participants of higher education mentioned in Iringa. This is a type of herbal

medicine that is supposed to protect young wives from men luring them into adultery. According to these people, though Christianity forbids polygamy, the “spirit still exists in the hearts of African people”. There are traditional teachings still present, that allow both men and women to have multiple partners. According to these teachings, participants said, a woman must have three men - one to give her money for keeping the house, one for clothes, and one for sexual pleasure. As another participant from an urban area said:

*“In an African kitchen you need to have a stone here, here and here. There are three stones and you put your pan in between. So they say you need to have three stones if you are a wife. So you need to serve three men”.*

**Infrequent condom use:** In both rural and urban areas of Singida, the general attitude towards condom use was evidently negative, such as implications that condoms reduce pleasure. Focus group participants stated reasons for not feeling sexual pleasure and not being comfortable with a condom. As one participant of lower education from an urban area said:

*“...for men if they use condom they really don’t enjoy the sex. They feel like they are wearing shorts”.*

The discussion about condoms was much more prominent in Iringa, both in rural and urban area although attitudes were divided. Participants stated that many people, especially young people, use them. However, they also said that there is lack of education on how to use a condom properly, as well as existence of various practices in connection to condom use that may put people at risk. As one high educated participant from a rural area said:

*“another thing about condoms is that when you talk to those who are using them they say that they use it maybe three times only. I met a guy today I would use condom, the next time we’d start to be familiar, by the third time we’ll remove the condom because now I know you very well and you know me very well. That is the bad thing. So people who are using the condom may be effective if they meet someone just once, but for example for those who are having extramarital affairs, after a few days they take off the condom”.*

## Theme exclusive to Iringa Region

**Silence:** The only theme that emerged exclusively in Iringa region is the theme of silence, which incorporates the absence of conversations about sex, as well as the stigma on condoms. This theme was present in both rural and urban areas of Iringa region. Interestingly, highly educated people talked about these issues more openly and more at length than low educated people did. This is yet another major finding since it has implications for HIV/AIDS prevention campaigns.

As far as an open conversation about sex is concerned, it is either nonexistent or a bit of a taboo. As one highly educated participant from a rural area in Iringa suggested:

*“We need also to focus on married couples, especially by improving communication between married couples, about breaking silence on matters related to sex; because it seems most families here they don’t talk about sex”.*

## Messages and channels used in HIV/AIDS campaigns

Research question three examined regional differences in the channels and messages that are used by active HIV/AIDS prevention organizations in the two regions. The outreach of these organizations seems to be very different in the two region researched as illustrated by Table 2 below

In Singida, focus groups revealed no mention of any particular message, but participants mentioned that sporadically they are

**Table 2:** Summary of media channels used and effectiveness of prevention campaigns.

Media channels used	Region	Location used in	Perception of Effectiveness
Radio	Iringa, Singida	Rural, urban	Ineffective
Television	Iringa, Singida	Rural, urban	Ineffective
Newspapers	Iringa	Urban	Ineffective
Magazines	Singida	Urban	Ineffective
Pamphlets, brochures, leaflets, posters	Singida	Rural, urban	Ineffective
Socials, church meetings, dances	Singida	Urban	Effective
Public events	Singida	Rural	Effective
Organizations using interpersonal channels	Singida	Rural, urban	Effective
Seminars, visits of medical personnel	Iringa	Urban	Ineffective
Assemblies with village leaders	Iringa	Rural	Ineffective
Others: Billboards	Iringa	Urban	Ineffective

exposed to messages from TV, radio, and magazines that they get for free, as well as various pamphlets, posters, leaflets, and brochures. Apart from mass media, interpersonal channels also seem to be very important, since they all mentioned the issue of HIV/AIDS being discussed in public and at church meetings, as well as different socials, such as local dances. While in urban areas they identified many active organizations, public events and individuals contributing to the awareness and cause, in rural areas people spoke of the ineffectiveness of such outreach as stated below:

*“...There are some radio programs, but people don’t have time to listen to these radio programs which are talking about AIDS education. ... also on the television but not everyone has television to see it”.*

However, according to the participants, one prominent organization seemed to be successful in its outreach both in the rural and urban areas. Participants explained that the organization encourages pregnant women to get tested, provides AIDS education, has a center established in many communities, and travels through the region to give education.

*“[the organization] has really helped but they also have a dispensary here nowadays they encourage their wives when they’re pregnant to come with their husbands to get tested. To get AIDS education. So that has really helped much”.*

Surprisingly, in Iringa region, where HIV/AIDS rates are much higher, people seem much more exposed to an abundance of HIV/AIDS messages from various channels. Some of the channels they mentioned were radio, TV, newspapers, and billboards, in addition to interpersonal channels, such as seminars, different medical personnel visits, and assembly meetings with village leaders. As far as messages are concerned, based on the participants’ comments, these can be grouped in two themes. First are the messages that missed the mark. These messages are considered to be either ineffective or a complete failure. A highly educated participant from an urban area said:

*“It is last week three or four days ago that it was live on the radio that these young people (...) were talking about being economical. They use these condoms, they wash them and then they (gasps) share (...) sometimes the good intentions we have for spreading the information, doesn’t reach. If you tell a person to use the condom only once (...) when he’s asking why only once you are not there. (...) What I hear is that the messages are out, but these message makers, they are making messages which are very general in my opinion”.*

The second theme that emerged here was about messages and sources that were contradictory to what they are supposed to represent.

*“So I attend maybe a seminar, we are in the class and after the session you see that the one who is providing training, is coming to me to talk to me about sex. (laughter) so if I see this is who is teaching us*

*about preventing spreading HIV and is the one who is propositioning (laughter)”.*

## Discussion

The purpose of this study was to conduct a cross-regional comparative analysis of the cultural, social and economic differences that influence HIV/AIDS prevalence in two regions in Tanzania - Iringa and Singida - as well as the cross-regional differences in the media channels and messages used in the prevention campaigns. A thematic analysis of eight focus groups conducted in rural and urban regions of both Iringa and Singida indicated that socio-cultural and economic factors do in fact influence sexual behavior, a primary vehicle of HIV transmission. As detailed in table 1, some of the themes appeared cross regionally, although some were more prominent in either Iringa or Singida. In addition, some themes appeared more frequently in either urban or rural areas. The themes provide some insight as to the contextual factors that hinder and facilitate sexual education in these regions and suggest how self and collective efficacy is affected by this context. Each major theme and its implications are discussed below. We begin with demographic differences between the two regions.

### Demographic characteristics

Interestingly the findings show that whereas in Singida Region there were three major tribes and many other minor ones, there was more tribal diversity in Iringa Region. Furthermore, the findings indicate that there were only two tribes and only four languages spoken in rural areas in Singida. In contrast, there were many more tribes and languages spoken in both rural and urban areas in Iringa. The presence of more diverse tribes and languages in Iringa means there are many more diverse cultural norms, traditions, and beliefs which influence sexual behaviors and in turn these lead to higher HIV/AIDS prevalence than in Singida. This has major practical implications for HIV/AIDS prevention campaign designers, scholars, and implementers. For instance, the multitude of tribes and languages in Iringa means that campaign designers have to use many more different channels, programs, formats, and languages for their HIV/AIDS prevention campaigns if they are to succeed [21-23]. For instance, conventional wisdom suggests that it would require much more financial resources for such prevention campaigns [21,23] in Iringa than in Singida.

### Cross-regional themes

**Financial influence on sexual behaviors:** Our findings indicate that there is a connection between poverty and sexual behavior such that women that have low or no income are forced to engage in sexual intercourse for financial compensation in both rural and urban areas in Singida Region. However, the connection was more prominent in urban areas in Iringa. The connection between poverty

and transactional sex has been proved by other scholars of the HIV/AIDS epidemic [24]. Unfortunately, our findings further suggest that women who were desperate for money engaged in unprotected sex simply for economic survival which makes them more vulnerable to HIV/AIDS infection in both Iringa and Singida regions. Some scholars argue that on the contrary people with higher socio-economic status have been found to have a higher probability of contracting HIV/AIDS in Tanzania [4]. The implication is that there is need for more studies on the influence of socio-economic status on HIV/AIDS sexual behaviors.

**Alcohol:** It was not surprising that our findings in both Singida and Iringa regions indicate that participants believed that there was a connection between alcohol consumption and HIV/AIDS prevalence. However, the connection was more pronounced in focus groups in urban areas in Iringa than in rural areas. This finding is consistent with other studies in sub-Saharan Africa [1,2,25,26]. These scholars argue that excessive alcohol consumption leads to risky sexual behaviors particularly in drinking places. The practical implication is that HIV/AIDS prevention campaigns have to address the issue of alcohol consumption through education. On the other hand there is need to understand the complexity of the fact that alcohol consumption is used as a pastime as indicated by the participants in our study. Hence, HIV/AIDS prevention programs need to include extramural activities such as soccer (football) in the communities both in rural and urban to engage people especially the youth in their free time and after work to reduce alcohol consumption.

**Sex and youth:** Participants in all focus groups addressed the issue of premarital sex among the youth. Apparently, even though premarital sex is culturally unacceptable, the fact remains that it is common among the youth in both regions. It could be that this factor is a countrywide phenomenon. It is interesting that the issue of premarital sex in Singida was attributed to the fact that once children reach age 16 or finish primary school they are free to engage in sex, while in rural areas in Iringa it was attributed to liberal parenting or less strict parenting norms. As indicated by focus group participants, this behavior leads to teenage pregnancy and risk for contracting HIV.

**Multiple partners:** As the findings indicate, the issue of multiple partners and how it increases the chance of risky sexual behaviors and consequently higher HIV/AIDS prevalence appeared cross regionally. However, the issue manifests itself differently in the two regions. It was surprising that whereas it is culturally acceptable for men to have multiple partners in both regions in Iringa region it is culturally acceptable for both women and men to have multiple partners. This is the most interesting and profound of all our findings. It is conventional wisdom that polygamy was common in most cultures in Africa prior to the introduction of European culture and religions. As focus group participants stated, it was a privilege to have many wives and children. In fact, having many wives and children was a status symbol. The reason was that since agricultural and pastoral activities were labor intensive, there was need for many wives and children to work the farms. A number of studies have discussed the issue of women commercial sex having multiple partners in sub-Saharan Africa and its relationship with HIV/AIDS prevalence [2,4,24]. However, the fact that the phenomenon of multiple partners for women is culturally acceptable in Iringa is a significant finding. To our knowledge there are no studies that indicate that a woman having multiple partners is an accepted cultural practice. The practical implication is that designers of HIV/AIDS prevention campaigns have to study and understand the cross-regional cultural differences before implementing these campaigns. These findings demonstrate that the issue of multiple partners has to be approached differently by campaign designers in Singida and Iringa regions.

**Lack of education:** As our findings indicate one of the sub-themes on lack of education was misconceptions and risky sexual practices

that spring from cultural traditions and norms. Interestingly this sub-theme was most prominent in urban areas of Iringa Region. It would be conventional wisdom that the urban population would be more educated and less likely to adhere so much to cultural misconceptions and myths. Our findings indicate that this was not the case in urban areas in Iringa Region. Moreover, the findings indicate that there were more misconceptions and cultural myths in Iringa than in Singida. It should be noted that while Iringa has one of the highest prevalence HIV/AIDS rates in the country, Singida has one of the lowest prevalence rates. As stated in the findings this is a major problem since these misconceptions and myths lead to a false sense of security and lack of susceptibility to HIV/AIDS infection. This presents practical challenges for HIV/AIDS prevention campaign designers and implementers. Again, this illustrates the need for campaign designers and scholars to approach each region in Tanzania in particular and East Africa in general differently. Hence, there is no one size fits all for HIV/AIDS prevention campaign.

**Infrequent condom use:** Our findings indicate that there were negative feelings about condom use in both urban and rural areas in Singida Region. On the other hand the attitudes about condom use were divided in both urban and rural areas in Iringa Region even though there was more discussion about the issue in the focus groups. Participants in Iringa indicated that even though the youth use them there is a lack of education about how to use them properly. The practical implication for HIV/AIDS prevention campaign designers is that they should not simply supply condoms but explain in detail how they should be used and the advantage of using them so as to dispel the negative feelings about them.

**The theme of silence in iringa region:** Our findings indicate that participants in Iringa Region mentioned the absolute silence and lack of conversation about sex. The findings further indicate that this was exclusive to Iringa Region and was not the case in Singida Region. On the other hand participants mentioned that educated people in Iringa were more open about discussing sex than less educated people. The practical implication for HIV/AIDS prevention campaign designers and scholars is that they have to encourage more discussion about sex. This can start with having more serious and comprehensive sex education in primary and secondary schools as part of the syllabus. We argue that if prevention campaigns are to succeed in reducing the high prevalence of HIV/AIDS in this region and others, it is imperative that the whole society becomes more open about sex and sexual behaviors. Without this openness, this issue will remain a taboo topic.

**Prevention messages and channels:** As the findings show, there were regional differences in HIV/AIDS prevention messages and channels. Apparently, while participants from Iringa Region offered specific examples of messages they had been exposed to, these messages were deemed ineffective. It was also interesting that these participants indicated that they had been exposed to messages from radio and TV as well as print messages. On the other hand, participants from Singida Region mentioned that most of the messages that they were exposed to were from print media. Furthermore, they mentioned that messages from interpersonal channels, particularly by the organization called Faraja, were more effective. This is an important finding since it illustrates a major difference in the effective use of media channels between the two regions. In Singida the use of interpersonal channels demonstrates the personal commitment by the Faraja organization to the HIV/AIDS prevention campaigns. For instance, the organization carries out HIV/AIDS testing followed by workshops to connect to the community at a more personal level. Some scholars argue that the mass media are effective at delivering information but interpersonal channels are more effective in convincing the audience [27]. This finding illustrates this argument. The practical implication is that campaign designers and implementers need to follow the example of

Faraja if they are to succeed. On the other hand funders in Iringa need to identify HIV/AIDS organizations that will be committed and connect to the audience at a more personal level to stem the epidemic in the region.

Our findings imply that there is need for culturally sensitive messages in both regions. For instance, since having many wives and children is culturally valued in these regions, HIV/AIDS prevention campaign designers and scholars in Tanzania in particular and sub-Saharan Africa in general must address this complex cultural tradition.

**Theoretical linkages:** From a social cognitive theory perspective, these findings can be viewed as facilitators and impediments to changing behavior, as well as factors shaping the collective and self-efficacy perceptions held by the members of these communities. Culturally valued practices, such as having multiple wives and children, alcohol consumption as a pastime encourage unprotected sex with multiple partners. Because these practices are culturally valued, both men and women are likely to have low perceived self-efficacy and collective efficacy, in this regard. In fact, focus groups participants spoke of the status symbol of having many wives, and how having children was a measure of a woman's worth. The social and personal cost of going against this social trend seems to weigh heavily on the members of the community.

Similarly, findings about condom use inform men's perceived self-efficacy in making the decision to use or not to use a condom. Focus group participants reported that the decision was left to the men, and that women had little say in this. Additionally, they reported the arguments on which men base their decision to not use a condom, showing that although men have high self-efficacy perception in this behavior choice, there are still structural factors (such as a group-sustained opinion that it reduces pleasure, and misconceptions that it causes diseases), that inform their choice.

Lastly, poverty was seen to influence sexual behavior significantly. In the case of young men, who viewed sexual relations as a way to occupy free time, it could be argued that there is high self-efficacy in making this choice. However, the insight obtained from participants who spoke of how poverty drives women to trade sex for money, and how once becoming a sex worker they could obtain better payment for not using condoms, suggests that there is low perceived efficacy at both the individual and collective level. This situation is made worse by two factors observed in Iringa: increased economic activity and silence. Iringa's economic activity -with transient workers coming in for construction, and truck drivers passing by-increases demand of sexual workers and opportunities for casual and risky sexual encounters. In addition, the silence around topics of sex and HIV/AIDS serves only to strengthen misinformation and stigma which is counterproductive for collective and self-efficacy in making the desired behavioral changes that could have a positive impact on HIV infection rates in the region.

In sum, employing social cognitive theory in this analysis helps bridge the information collected by those who analyze health campaigns through traditional demographics and measures of efficacy with those who promote and analyze the socio-cultural foundations rooted in the geographical framework that define and characterize each epidemic. In presenting the findings of this study, the authors specified whether participants were from urban or rural areas and whether they are educated or not. These common denominators provided some insight into how their social, cultural, and economic positions influence their self-efficacy in issues such as condom use.

## Conclusion

The purpose of the study was to analyze the cross-regional social, cultural, and economic factors that influence the sexual behaviors and HIV/AIDS prevalence as well as the cross-regional differences in the channels and the messages used in prevention campaign in Tanzania. In employing social cognitive theory and analyzing the cultural, social, and economic factors that influence the cross regional variations in HIV/AIDS prevalence in Tanzania, the present research has made a significant contribution to our understanding of these complex issues in the country in particular, the East Africa sub region, and sub-Saharan Africa in general. In addition, in analyzing the regional differences in HIV/AIDS prevention messages and channels in the two region, the present research provided practical and theoretical implications for government campaign designers, non-governmental organizations that conduct prevention programs, agencies that fund these organizations, as well as scholars.

The presence of these cross-regional cultural, social, and economic factors mean that HIV/AIDS prevention campaign designers, implementers, and scholars have to account for these differences in their campaign messages if they are to succeed in stemming this epidemic in Tanzania in particular, the East Africa sub region, and sub-Saharan Africa in general.

However, the present research has a one limitation that should be acknowledged. Since the researchers used qualitative focus groups, the findings cannot be generalized. On the other hand, it should be noted that the purpose of the research was not generalization, but to grasp a deeper understanding of the cultural, social, and economic factors that influence the regional variations in prevalence of HIV/AIDS in Tanzania. Future research should attempt to conduct survey research to quantitatively capture these regional differences and variations.

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