

Tapping local resources for HIV prevention among the Borana pastoral community

Mirgissa Kaba

Abstract

Background: HIV intervention over the years has contributed to declining infection in Ethiopia. Yet, there are settings in the country where the virus has continued to spread. This calls for identifying and tapping local resources to contain further spread of HIV infection.

Objectives: The study aims to determine local opportunities and resources that could be mobilized to improve HIV and AIDS response among the Borana pastoral community.

Methods: In-depth interviews and FGDs were employed to collect relevant information. Topic guides were developed to guide information collection. A total of sixty-nine in-depth interviews and sixty eight FGDs with men and women members of the community were carried out. Data so collected were coded, categorized and summarized with an application of MAXQDA 10 qualitative data analysis software.

Key findings: In Borana, HIV prevention endeavors were found to be coordinated by the zonal health department. Health extension workers, local teachers and youth groups were important agents facilitating HIV awareness creation activities at community level. However, these facilitators were not recognized as credible sources of information in the community because of their age and status. This has contributed to weak reception of available information on HIV which contributed to limited level of awareness about mode of prevention, transmission and maintenance of 'wrong' local beliefs about HIV and AIDS. *Gada* leaders who are influential, and recognized source of relevant information at community level through their assistants (*makala*). Besides, *Gada* leaders organize and facilitate *Gada* General Assembly (*Gumii Gaayo*), every eight years to review major concerns in Borana and make major decisions. HIV prevention endeavors, however has failed to benefit from such local resources and opportunities.

Conclusion: Every community is believed to have its own resources to deal with local problems. If mobilized and employed such resources, could facilitate mitigation of problem. Responses to HIV and AIDS in Borana could benefit from available resources and opportunities if local health authorities pay proper attention to such resources. [*Ethiop. J. Health Dev.* 2013;27(1):33-39]

Introduction

The HIV and AIDS epidemic is recognized to have posed serious development challenges to countries around the world. A recent UNAIDS report shows that by the end of 2010, 34 million [31.6-35.2] people were estimated to be living with HIV. The same report shows that an estimated 2.7 million [2.4-2.9] became newly infected during the same year (1). According to the UNAIDS's report, remarkable achievements were recorded as compared to early 2000 when the pace of infection was scaring and the number of deaths connected with HIV and AIDS was remarkable. The figures of the report witness that the problem is still lingering and there is a long way to go to mitigate the spread of HIV and contain its consequences. This subscribes to the fact that existing prevention strategies have not yet equipped the public to take the necessary protective actions.

Financial and technical support from the World Bank, Global Fund, the President's Emergency Plan for AIDS Relief (PEPFAR), the Joint UN Program on AIDS and several other institutions have undoubtedly contributed to the accomplishments made so far. Yet, such technical and financial resources did not halt the spread of the virus nor have its consequences been mitigated all together (2). Consequently, as in many developing

countries, especially in Sub-Saharan Africa, HIV infection has continued to threaten development endeavors and its impact has continued to worsen in Ethiopia. There are literatures on HIV prevention interventions that accuse existing intervention modalities for failing to pay attention to their sustainability. Such literature pin point that interventions remain to be driven by external support whereby countries firstly did not allocate matching funds to sustain interventions and secondly such countries failed to take local contexts and resources into consideration in planning and implementing interventions (3,4). Such gaps are believed to give the epidemic an opportunity to spread and continue to threaten development endeavors (3).

Recent literature on HIV prevention intervention suggests the need for an evidence-informed intervention regarding where the epidemic is, who are most affected and what interventions could best work where (3-5). In as much as evidence-informed intervention is critical, effective and sustainable change in the course of the HIV and AIDS epidemic requires mobilization of local resources that are available at community level, engagement of locally influential authorities in the interventions and ensuring community ownership of the problem and accountability to its solutions (3,4,6,7).

Ethiopia is one of the countries where HIV has either stabilized or has shown a sign of decline since 2009 (1). In 2010, 1.1 million people were believed to be living with HIV and 14,000 HIV positive births were estimated to have occurred during the same year (8).

While HIV prevalence appears to have fallen or stabilized in Ethiopia after reaching its peak in the mid-1990s, the absolute number of infected individuals is still very large mainly due to the sheer population size of the country (9). Estimates show that in 2010, HIV prevalence was 2.4%, with a remarkable variation between rural and urban settings. Recent estimates however show a remarkably declining trend way below the mark of generalized epidemic in some settings. Nonetheless, in a country with diverse socio-cultural features, expanding urbanization, increased mobility of people in search of employment opportunities, growing construction and mechanized agricultural activities; the spread of HIV infection is critical with its far reaching challenge to the country's long term development endeavors (9,10).

The challenge is more pronounced due to limited comprehensive knowledge about HIV which affect the pace of responses. The 2005 National Behavioral Surveillance Survey (BSS) report concluded that only a fourth of the population possesses comprehensive knowledge about HIV (10). Recent EDHS has also concluded comprehensive knowledge of AIDS is uncommon where only 19 percent of women and 32 percent of men have comprehensive knowledge about HIV/AIDS transmission and prevention methods¹ (11). Although concrete evidences are lacking for pastoral communities, the 2005 BSS report estimated comprehensive knowledge about HIV transmission and prevention to be less than 5% among the pastoral communities (10) including the Borana. UNDP's assessment of community conversation practice in Yabello, one of the districts in Borana Zone, documented low levels of knowledge on the modes of HIV infection and evident denial of the existence of HIV (12). A recent study on the state of HIV in Borana has also documented that after three decades of HIV prevention intervention in Ethiopia, there remains to be poor awareness about modes of HIV prevention and modes of its transmission (13). There are also other studies that have documented an established and widespread extramarital sexual practice (*jaala-jaalto*) among the Borana, which is believed to predispose the community to HIV infection (14,15, 22).

¹ Comprehensive knowledge about HIV and AIDS was determined in terms of consistent use of condom during sexual intercourse and having just one partner can reduce the chance of getting infected, knowing that a healthy looking person can have the virus and rejecting the two most common local beliefs about transmission or prevention (HIV can be transmitted through mosquito bites and supernatural means) (11).

Although biological data is lacking on the prevalence of HIV in Borana, a surveillance survey report from 2005 estimated HIV prevalence at 5.1% among Anti-Natal Care (ANC) attendees at Yabello Health Center (16). Similarly, unofficial report from the Millennium AIDS Campaign on HIV counseling and testing documented HIV prevalence of 4-6.8% for 2006-2008 (17). The Borana data indicates prevalence rate of 3% which is still high as compared to prevalence data of 4% for Oromia Region as a whole.

Despite such realities on ground, HIV prevention intervention is still lagging behind with top-down in approach loosely coordinated and poorly explored into what local resources and opportunities are available to improve the success and pace of interventions. Community conversation, which in principle is a facilitated dialogue among community members but in reality is mere HIV and AIDS information sharing by Health Extension Workers is considered as the model for HIV prevention adopted in Ethiopia and applied as prevention strategy in Borana (13, 24,26).

This study aims to assess the current HIV prevention interventions in Borana and identify local resources that, if mobilized, could improve responses to HIV prevention in Borana.

Methods

Study Area:

The Oromo occupy about 40% of the land surface of Ethiopia and supposedly constitute 40% of the Ethiopian population (17,18). The Borana community is considered as a senior Oromo clan that has maintained the *Gada* system of governance. The *Gada* system has been the basis of socio-cultural and political organization of the Oromo society since the early 13th century with the history of elections and smooth power transfer held every eight years (19, 20). Despite pressures on this system during the last hundred years and evident weakening in the rest of Oromia, the electoral system, power transfer and functions are still functional in Borana.

Geographically, Borana is one of the 14 zones of the Oromia Regional State situated in the relatively arid area of the southern part of Ethiopia bordering with Somalia in the east and Kenya in the south (19). Furthermore, the zone borders with Gujii and Bale Zones of the Oromia Region in the north and northeast and Konso District of the Southern Nations, Nationalistic and Peoples Region in the west. The most recent census estimated Borana population to be one million (17). Livestock rearing is the economic mainstay of the community.

Distribution of health and education facilities is restricted to small urban settings where mainstream Borana are not dominant. Service delivery in Borana is not organized on the basis of the pastoral nature of the community.

Methods of Data Collection and Analysis:

As part of the entire study on gender, sexuality and vulnerability to HIV infection in Borana, a total of sixty-nine in depth interviews and nine sessions of separate men and women FGDs were carried out from October 2008 to April 2009. Study participants were drawn from Arero, Teltele, Yabello, Liben and Moyale *Woredas* of the Zone. Research participants from these *woredas* were identified using a snowball technique, where the first informant identifies the next informant until the desired information is fully captured to saturation. In addition, the fact that the investigator lived in the community during data collection, a list of who is who in the community was developed which helped to identify participants for the in-depth interview as well as FGDs. Besides, an HIV focal person of the Zonal Health Department, three Civil Society Organizations (SSOs) with an ongoing HIV and AIDS programs were involved in the study by providing relevant information. Topic guides were developed for both in-depth interviews and FGDs to generate relevant information regarding the research questions. While information on HIV prevention, factors that fuel infections in the community and available local resources were generated through FGDs; information related to perceptions on whether there are local resources to support interventions, existing interventions and who is believed to have what stake were captured using in-depth interviews.

Interviews were conducted in Afaan Oromo using pre-set semi-structured topic guides. Brief notes were taken by the PI and research assistants during individual interviews and FGDs. These were transcribed, shared, elaborated and organized in the form of field notes at the end of each day. Field notes were translated into English and samples of these were back translated into Afaan Oromo to ensure accuracy and consistency of the material.

Data so generated were expanded into notes, saved in a Rich Text Format (RTF) file and imported into MAXQDA 10 qualitative data analysis software. Themes, sub-themes and codes were developed to summarize the raw data. Interpretation of the data followed the objectives of the study. Pseudonyms were used to maintain anonymity of research participants, while age, sex, source of information (in-depth interview or focus group discussion) and residence of the participant were shown in parenthesis for easy reference.

Results**Socio-Demographic Characteristics:**

A total of nine FGD sessions with both men and women involving 68 participants and 69 in-depth interviews were completed as part of the study on gender, sexuality and vulnerability to HIV infection among the Borana. The average age of FGD participants was 40 years for females and 37 years for males, while for the in-depth interview participants, average age was 49 years for males and 50 years for females.

All participants were married and belongs to the Oromo ethnic group. Eight in ten of them are followers of indigenous religion (*Waaqeffannaa* - belief in *Waaq* – the Almighty).

Current State of HIV Prevention in Borana:

Research participants unanimously reported to have heard about the three modes of HIV prevention: abstinence, faithfulness and use of condoms. However, further probing of what is known about modes of HIV prevention revealed that the majority of respondents did not believe if abstinence and faithfulness indeed work in Borana as prevention. It was unanimously argued that extramarital sexual practices (*jaala-jaalto*) are widely practiced in Borana making faithfulness difficult to accept as prevention method. Besides, it was found that abstinence is universal in Borana until marriage since chastity is strictly observed². Level of awareness on the modes of HIV transmission showed that, research participants believed, HIV could be transmitted by eating and living together, and sharing clothes with someone who is believed to have HIV. Besides, research participants unanimously stressed that sexual activity and sharing sharp skin piercing objects are major routes of HIV transmission.

HIV and AIDS response in Borana is coordinated by the Borana zone health department. It was gathered that the health department as well as CSOs apply community conversation to improve community awareness about HIV/AIDS. Health extension workers, school teachers and members of youth clubs were trained to facilitate community conversation at village level.

However, study participants unanimously doubted the credibility of information received from health extension workers, youth and school teachers since they are yet young and are not ultimate source of information. A woman in-depth interview participant argued that “*We do not know much about HIV and how it spreads as we get mixed information about the disease and how it spreads, who is more affected and how to prevent it. We are*

² Although conclusive evidence was not generated, recent developments such as relative expansion of education and girls joining school makes it difficult to control chastity.

confused on what to do about this as most of the information we get is from our own children". Furthermore, she complained on the quality of information, "I think we [community members] are not getting reliable information about the disease. I do not trust health extension workers, school children and school teachers, who are young themselves to provide reliable information about the disease" (W52, II Liben). According to one of the informants, "Messages are not shared according to cultural communication patterns where Gada leaders and their assistants (makala), who are recognized channels to disseminate information to the public, are not taking part in information provision to the community. So, how should we trust these young children?" One of research participants complained that "both government and NGOs in our area tell us to limit ourselves to our wife and otherwise use condoms. For us, it is difficult to limit ourselves to our wives and we do not have enough information about condoms" (M48, II Teltele).

In one of the FGDs, the confusion on HIV information was summarized as: "What HIV is, how it spreads and what to do to prevent infection is not well internalized by members of the community. Some of us claim to know about HIV from the little information we obtain from someone senior who may visit the community and/or from someone who resides in the town and visit us. Such information is found to be inconsistent" (M50, FGD Arero).

Similarly it was pointed out that, "We hear about HIV and its mode of transmission. The concern we have is whether the information we get is reliable. We have not heard about the disease from those we respect and trust. The respondent further stressed that "...we also notice that Gada leaders, whom we consider as our models, have continued to maintain their jaalto. This may have given us a wrong message to maintain our jaala and for men to keep their jaalto" (W43, II Didara).

Gada leaders' failure to provide reliable information about HIV and AIDS created confusion on what to do without compromising extramarital sexual practice was emphasized, "We do not know enough about the disease since we are not getting reliable information from our Gada leaders on how HIV is transmitted and what can be done without compromising our jaala-jaalto practice. Had Gada leaders guided us on what to do about HIV, we could have taken action accordingly. However, this is missing at least to date although this may change tomorrow" (42M, FGD Lib).

Expressed Interest for HIV and AIDS Services:

Research participants unanimously expressed interest for receiving counseling and testing for HIV and to be informed about condoms - how they work and where to get them. At least three in five research participants, both men and women, expressed interest for HIV counseling and testing to know one's own HIV status.

One of the participant stated, "I heard counseling and testing helps to know ones HIV status. I would be happy to know my status although I do not have doubts that I am healthy. Where would this service be available?" (M50, II Liben).

Another participant has emphasized that, "Myself and my friends would like to know about our HIV status. We are ready to give our blood now if there is such a facility here" (W56 II Arero).

Similarly, it was found that there is a positive consideration of condom as a means to prevent HIV infection. At least one in three women and one in five men research participants reported to have heard that condoms prevent HIV infection. A participant pointed out that, "I heard that condom prevents HIV infection, but I do not know much about how it works. We would like to know how condom works and where to get it" (W57, FGD Harobeke).

In recognition of the limited awareness about HIV and AIDS and the continued extramarital sexual practice, research participants unanimously recognized HIV as a major concern in the community.

Potential Local Resources for HIV Prevention:

The question about who should be responsible for mitigating the spread of AIDS revealed diverse opinions. The majority of women participants argued that everybody has the responsibility to prevent the spread of HIV infection. However, one in five research participants pointed out that the Almighty (*Waaqa*) should save the public from the disease. This group pointed out that "prayer to *Waaqa* is the only solution as there is no other possible way of prevention". Extramarital sexual practice was found to be an established way of life in Borana as one of the research participant noted "...stopping the practice of jaala-jaalto is very difficult as our social and economic relations would suffer in consequence. So, *Waaqa* should save us from this disaster which will otherwise wipe us all" (W44, FGD Harobeke).

Yet, all men and women research participants unanimously hoped that Gada leaders may be given attention in an effort for HIV prevention interventions in Borana. The need to involve Gada leaders in HIV prevention was stressed where, "involvement of Gada leaders in the development of acceptable messages on HIV prevention and sharing such information with the public is critical role" (W37, II Didara). The power of messages that come from Gada leaders was explained as follows, "Abba Gada Liben made a passing remark during the last but one Gumi Gaayo [eight years ago] where he urged the public to be cautious of HIV. He did not however advised the community on what to do about it and if jaala-jaalto practice should stop. Since that event, the public in Borana has been in a state of serious fear and concern about HIV. Had Gada leaders played leading role in HIV prevention, they could have made a

lot of differences in HIV prevention in Borana” (M55, FGD Yabello).

While *Gada* leaders and their assistants (*makala*) were said to have important roles in educating the public on how to prevent HIV infection, spouses at family level were cited as responsible for educating and guiding their children. Research participants emphasized the role of the family in HIV prevention where “*The family especially men have to advise their sons on HIV especially on its mode of transmission and how to prevent*” (M75, II Arero). Government is said to have responsibility in ensuring access to consistent and reliable services on HIV. Such access however is believed to have far reaching implication if *Gada* leaders and their assistants (*makala*) are considered as key partners. One of the participants explained that: “*HIV prevention is successful if government works with Gada leaders who are respected and trusted as leaders but also source of information and providers at community level*” (M40, II Arero). It was unanimously stressed that “*government and NGOs should work with local Gada leaders to improve HIV prevention endeavors*” (W46, II Liben). One of the participants underscored that, “*Government should not pretend to change the course of HIV epidemic without involving Gada leaders*” (M70, II Dubluk). Empowerment of *Gada* leaders in the design and implementation of interventions as well as availing condoms and counseling and testing services were pointed out to be the role of government. *Gada* leaders however should have a strong stake in “*the design of messages, guiding and controlling community members to take action accordingly*” (W43, II Didara).

Discussion

A recent UNAIDS report has shown that at the end of 2010 there were 2.7 million new HIV infections and over 60% of these were from sub-Saharan Africa (1). Over the years intensified responses were the case with evident contribution to declining or stabilizing level of HIV infection (8). Although prevalence is declining (11), HIV/AIDS has continued to threaten development efforts and remains to be serious public health concern with its consequences much larger than the prevalence. The problem is pronounced given the fact that interventions remains uncoordinated and designed in a top down manner without consideration of local contexts (1,3–5). There are evidences from sub-Saharan Africa, where HIV prevention interventions were centrally designed without consideration to the realities on ground and what could work best given local contexts (3-5). This is not an exception to Ethiopia where this present study has also revealed the fact that HIV related interventions in Borana have neglected local contexts in the design of messages and have failed to mobilize local resources that, if considered, could have improved the success of the interventions. The outcome of this is evident in that

factors that fuel infections remain in effect as strong as usual despite extensive interventions in some parts of the country where HIV is steadily spreading to small rural towns (9). The state of HIV infection in Borana in particular is worrying in view of the limited awareness and continued practices of extramarital sex which aggravated the situation (13,15).

Currently, HIV prevention interventions in Ethiopia are guided mainly by facilitated community conversations where trained health extension workers, school teachers and members of youth clubs facilitate HIV and AIDS awareness promotion activities (23, 26). Unfortunately in Borana, information that comes from health extension workers, youth anti-AIDS club members and school teachers is not trusted and respected. This is due to the fact that such sources are considered as yet learners themselves and they are not expected to provide trustworthy information of such public importance with implication on life in which HIV is believed to be one.

Furthermore, HIV messages by HEWs, youth club members and teachers were found to be of generic in nature emphasizing abstinence, remaining faithful to one partner and the use of condoms. Although research participants expressed interest to know more about and the availability of condoms, abstinence and faithfulness were found to be difficult to translate into action among the Borana where extramarital sexual relations are common and chastity is observed only until marriage (21). Thus, it is not only the design of locally acceptable messages that could make differences in HIV prevention interventions, but also who provides the messages at the grassroots levels.

In recent years, HIV prevention interventions have shifted in favor of understanding what fuels and sustains infections at the community level and how to deal with the problem in partnership with the community of concern (5,22,24). Building partnership with local stakeholders including the youth, women, the government, CSOs, religious and local leaders and HIV/AIDS activists has long been recognized to improve HIV interventions (3,4,6). Similarly, in Borana, research participants identified several stakeholders such as *Gada* leaders, the family, NGOs and the government to work together for a common goal of improved HIV prevention interventions.

The findings of the present study underscored that *Gada* leaders are influential, and trusted role models in the community. As such they could serve as a bridge between the community and the government at a higher level. At community level, they are considered as source and providers of information through their own channels. Nonetheless, firstly such leaders equally fall prey to HIV infection since as members of the community they lack

awareness about HIV and AIDS themselves. Secondly, they are not given a space in HIV and AIDS program design nor are they considered as potential resources for HIV and AIDS interventions both by the health sector in the zone and CSOs that run active HIV/AIDS programs. This has affected the success of interventions since respected local leaders were not part of the plan. As it stands now, engagement of such local leaders depends on prior capacity building of such leaders so as to fully inform them about the problem as well as their potential role in interventions. This is believed to improve the contribution of *Gada* leaders in the design of interventions, ensure local communities are reached with locally sound information and services and improve an outcome of interventions

In addition to local leaders, all other stakeholders that were identified to have a stake in HIV/AIDS response, such as Borana families are recognized to have critical stake in socializing children on their successful development. Such socializing activities were believed to play role in prevention of HIV among the youth who are still with their parents. Although it was not clear from the findings if families need additional support to meet the demand of playing these roles in HIV prevention with a focus on youth at the family level, it would be important to capacitate all the stakeholders to assume proactive role and closely liaise with local leaders to improve HIV and AIDS response in Borana.

Conclusion and Recommendations:

The current state of HIV in Borana is at a critical state where awareness is weak and extramarital sex is still the case than exception. This puts the community at greater risk of HIV infection and calls for an immediate and focused intervention, guided by realities on the ground and tapping into available local resources.

It is noteworthy that the study participants realized the value of partnership in responding to HIV infections. Government, local *Gada* leaders, the family and civil society organizations were found to have important stake in HIV prevention interventions. This shows that community members recognize the role that different stakeholders have in HIV prevention in Borana.

More importantly, the role of *Gada* leaders in HIV prevention intervention was found to be paramount. As influential, trusted and reliable source of information in their communities, *Gada* leaders are considered as important resources that need to be empowered and engaged in efforts to improve the response to HIV/AIDS. Similar consideration for the family, which is an important socializing agent, was found to be a critical step if the response to HIV/AIDS in Borana is to be successful.

Summing up, successful HIV interventions in Borana requires mobilization and engagement of local *Gada* leaders as key partners, in addition to the involvement of

families and locally active CSOs in the design of locally acceptable and effective interventions. The government, among others, is expected to empower *Gada* leaders with the knowledge and skills on HIV that will enable them to take proactive roles in the response to HIV/AIDS in Borana. Thus, engagement of such leaders in endeavors of HIV prevention requires prior action to equip them with the knowledge and skills on HIV prevention.

Acknowledgements

I would like to acknowledge my advisors Prof. Marcel Tanner and Prof. Jakob Zinsstag who devoted their time to guide me with their invaluable comment to data analysis and the draft manuscript. My heartfelt thanks also goes to Prof. Brigit Obrist, Prof. Mitchell Weiss, Dr. Jan Hattendorf, Prof Leickness Symbayi and Amena Briet who read the manuscript and provided me with useful comments.

Financial support from The National Centre of Competence in Research (NCCR) North-South is also duly acknowledged.

References

1. UNAIDS. Global report: UNAIDS report on the global AIDS epidemic. UNAIDS; Geneva, Switzerland, 2010.
2. UNAIDS. Global report on HIV/AIDS. Geneva; Switzerland, 2006.
3. Piot P, Bartos M, Larson H, Zewdie D, Mane P. Coming to terms with complexity: A call to action for HIV prevention. *Lancet* 2008;372:845–59.
4. Global HIV prevention working Group. Behavior change and HIV prevention: (Re) Considerations for the 21st Century. August 2008, <http://www.globalHIVPrevention.org>.
5. Gupta GR, Parkhurst JO, Ogden JA, Aggleton P, Mahal A. Structural approaches to HIV prevention. *Lancet* 2008;(372):764–75.
6. Coates TJ, Richter L, Caceres C. Behavioral strategies to reduce HIV transmission: How to make them work better. *Lancet* 2008;372:669–84.
7. Padian NS, Buvé A, Balkus J, Serwadda D, Cates W. Biomedical interventions to prevent HIV infection: evidence, challenges, and way forward. *Lancet* 2008;372:585–99.
8. Federal HIV/AIDS Prevention and Control Office (FHAPCO), Ethiopia. HIV/AIDS annual monitoring and evaluation report: 2008-2009. Addis Ababa, Ethiopia, 2009.
9. Federal HIV/AIDS Prevention and Control Office (FHAPCO), Ethiopia. HIV/AIDS in Ethiopia: An epidemiological synthesis. Addis Ababa; FHAPCO, 2008.
10. Mitike G, Tesfaye M, Ayele R, Gadisa T, Enqusillasie F, Lemma W, et al. HIV/AIDS behavioral surveillance survey (BSS): Round Two. 2005.

11. Central Statistical Agency (CSA), Ethiopia. Ethiopian demographic and health survey: 2011. Addis Ababa; CSA, March 2012.
12. Miz-Hasab Research Centre. HIV/AIDS and gender in Ethiopia: The case of 10 *woredas* in Oromia and SNNPR. Addis Ababa; Ethiopia. 2004.
13. Kaba M, Haile Mariam D. The state of HIV prevention in Borana Zone of Oromia Region, Southern Ethiopia. *Ethiop J Health Dev* 2012;6(1):9-15, 2012.
14. Warers A, Birru B, Gashaw M. Ethiopian pastoralists and HIV/AIDS: Few facts, many fears and a glimmer of hope: Workshop report on linkages between HIV/AIDS and the livestock sector in Eastern and Southern Africa. Unpublished report, Addis Ababa, Ethiopia, 2005.
15. Elemo I. Reproductive health, HIV/AIDS and gender perspectives in East Africa: Understanding the Oromo culture. VDM publishing house, Ltd; Germany, 2009.
16. Federal Ministry of Health (FMOH), Ethiopia. AIDS in Ethiopia 6th report. Addis Ababa; Ethiopia, 2007.
17. Federal HIV/AIDS Prevention and Control Office (FHAPCO), Ethiopia. Millennium AIDS Campaign – Ethiopia, Unpublished report. Addis Ababa; FHAPCO, 2007.
18. CSA. Ethiopian census abstract. Addis Ababa, Ethiopia, 2007.
19. Hussein JW. The function of African oral arts: The Arsi Oromo oral arts in focus. *African Study Monographs* 2004;26(1):15–58.
20. Legesse A. *Gada*: Three approaches to the study of African societies. New York: Free Press; 1973.
21. Leus T. Aadaa Boraanaa: A dictionary of Borana culture. Addis Ababa; Shama Books, 2006.
22. Kaba M. Gender, sexuality and vulnerability to HIV infection among the Borana pastoral community of Southern Ethiopia. PhD thesis: University of Basel and STPH, 2011.
23. FHAPCO, Ethiopia. Report on progress towards implementation of the UN Declaration of Commitment on HIV/AIDS. Addis Ababa; Ethiopia, March 2008.
24. Julie JT. Assisting or compromising intervention? The concept of “culture” in biomedical and social research on HIV/AIDS. *Soc Sci Med* 2007;64:965–75.
25. Agnes MC. The condom is an “intruder” in marriage: Evidence from rural Malawi. *Soc Sci Med* 2007;64:1102–15.
26. Kaba M, Tanner M, Zinsstag J. Tailoring HIV intervention in Ethiopia to suit local context. Evidence for policy series, Regional edition for the horn of Africa, No 4, ed. 2012.

