



## Full Length Research Article

### HEALTH COMMUNICATION PRACTICES FOR MALARIA PREVENTION AND CONTROL IN GAMO GOFA: REVIEWING THE RURAL COMMUNITY BLOCK

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#### ABSTRACT

**Introduction:** Despite prevention and control activities, malaria ranked first among the top ten rampant diseases in Gamo Gofa Zone, Southern Ethiopia. The focus of this article was hence to investigate the communication strategies and approaches of health promotion initiatives. This article explored practices of the health sector in involving the community and share health-related information to the health well-being of the community.

**Materials and Methods:** Both quantitative and qualitative inquiries were conducted to investigate communicative behavior of the community in preventing and controlling malaria. 845 questionnaires were administered and filled by Health Extension Workers [HEWs] and rural residents, 12 Focus Group Discussions and seven key informants in-depth interview was done.

**Results:** Of 1.7 million Gamo Gofa Zone inhabitants, nearly 1 million [55%] people live in malaria risk areas. From 85, 089—both clinical and confirmed malaria cases—in 2000 E.C, the cases doubled to 160, 959 people in 2003 E.C. The Zone health development process is relatively fragile. 67% of the respondents reported that the communication process is linear not participatory. The health promotion process, starting from the planning to the monitoring and evaluation, lacks the grassroots engagement and dynamism; and autonomous decision-making on local development matters is the missing link that the Zone has to revisit.

**Conclusion:** The Zone has no institutional organizational communication strategy to engage the rural community against malaria. This is resulted with lack of clear understanding of the role of communication coupled with abysmal community distancing. These defocused practices also incapacitated locally organized development groups [commonly institutionalized as Health development Army, HDA] to go nowhere.

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#### INTRODUCTION

Participatory communication is an approach based on dialogue, which allows the sharing of information, perceptions and opinions among the various stakeholders and thereby facilitates their empowerment, especially for those who are most vulnerable and marginalized (Tuft *et al.*, 2009). Underside of communication system in any society is failure to address poverty that threatens equality, social cohesion, and the free flow of knowledge and information (Quebral, 2012). It also defines development as a widely participatory process of social change and material advancement [including greater equality, freedom and other valued qualities] for the

majority of the people through their gaining greater control over their environment (Rogers and Everett, 1976; Servaes, 1999 and Kitthananan, Amornsak, 1999). Problem occurs then usually when development agents perceive the process as only transmission of skill to a gathered people. Participatory communication is not just the exchange of information and experiences: it is also the exploration and generations of new knowledge aimed at addressing situations that need to be improved (Tuft, 2009 and Nahlen, 2003). Approximately 52 million people (68%) live in malaria risk areas in Ethiopia, primarily at altitudes below 2,000 meters (MOH, 2006). The Ethiopian Ministry of Health documents state that, in Ethiopia, altitude and climate are the most important determinants for malaria transmission (MOH, 2012). Transmission is seasonal and predominantly unstable. The major transmission of malaria follows the June – September

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rains and occurs in the period from September - December while the minor transmission season occurs in April – May following the February – March rains. Malaria accounts for 17.8% of outpatient consultations, 14.1% of admissions and 21.8% of inpatient deaths (Meek, 2001). Malaria remains one of the world's most significant health and development problems. An estimated number of 300-500 million malaria cases and more than one million deaths that are directly attributable to malaria worldwide occur every year. More than 90% of the clinical cases and deaths occur in Africa South of the Sahara Desert (Nahlen, 2003; MOH; 2006 and MOH, 2012). It has been consistently reported as one of the three leading causes of morbidity and mortality in Ethiopia. The magnitude of the problem has even worsened and the disease has been reported as the first cause of morbidity and mortality accounting for 15.5% out-patient consultations, 20.4% admissions and 27.0% in-patient deaths (Ministry of Health, 2002). In a response, in Ethiopia, free distribution of Insecticide Treated Nets [ITNs], Indoor Residual Spray [IRS], diagnosis treatment and environmental management are the derivatives of the national malaria prevention and control strategies that have been implemented in the area. In addition, early Rapid Diagnosis and Treatment [RDT] at institutions and occasionally at field levels has also been a cornerstone strategy for malaria epidemic control [in Ethiopia] but these strategy is not fully successful due to inadequate community ownership (MOH, 2012; Ministry of Health, 2002 and Federal Democratic republic of Ethiopia Ministry of Health, 2004). Due to national economic limitations and historical legacy of rural political economy, most of the Ethiopian people who live in rural areas usually face health and social problems. The problems are clear: lack of educational facility, clean water, new agricultural practices, transportation and mostly poor health due malaria infection and other communicable disease. Hence, investigating the community participation in development related issues like health communication strategy design and the implementation of community-based action are central reason of this paper. To these ends, by using fieldwork, the research explores a study on the empowerment and dialogic communication process of the Zone health department, *district* offices and HEWs toward community development.

## MATERIALS AND METHODS

### Study Setting

A community based qualitative inquiry was conducted at Arba Minch Zuria district malarious rural villages in 2014. Arba Minch Zuria district is located 505 Kms South of Addis Ababa, the Capital City of Ethiopia. The district is administratively divided in to 29 'kebeles' (districts) 11 of which are malarious. The total population of the study area is 169, 779. The total number of households is estimated to be 42, 354 with an average household size of 5.

**Study design:** In studying the face-to-face communicative behavior of the community in preventing and controlling malaria, the lived experiences and social interactions in their context ought to be studied from the insiders' perspective—commonly known as *emic* perspective. Qualitative inquiry is therefore found to be an apt methodology in order to

understand epistemologically how the community builds reality in understanding and defining its own embedded context and how to catch up with it. Besides, quantitative data were elicited via structured questionnaire from 845 respondents.

### Data Collection

**Participant observation:** Twenty-two days of observation made to understand the life of the lowland dwellers. The observation includes bi-monthly Community Conversations [CC] [perceived to be common in every kebeles of *Gamo Gofa Zone*], HDA group communication [important institutional strategy]. And the routine communicative behavior of Health Extension Workers [HEWs], district health experts, and other community informal settings in their social milieu was observed.

**Focus Group Discussions [FGDs]:** Twelve FGDs were administered in six malaria prone kebeles sampled purposively [two focus group discussions conducted in each *kebele*]. In forming the groups, the number of participants is often debatable. Natasha *et al.*, however provide a fair suggestion on this. A typical number of participants are eight to ten people, with a maximum of twelve (2005). Therefore, the twelve study groups were composed of eight people on average [ninety-six] local participants.

**In-depth interview:** Gaining their informed consent from the respondents, an in-depth interview was conducted with seven key informants selected via snowball technique.

**Questionnaire:** 845 randomly selected residents were involved to participate in the study to fill questionnaire.

**Sampling:** As the study employed qualitative and quantitative methods, two sample categories were used. In order to obtain quantitative data, single population proportion formula was used to calculate the sample size by considering 95% confidence level, 50% proportion to find maximum sample size 5% margin of error ,10% none response rate and considering 2 for design effect since large area and have multistage sampling procedure to interview the required sample respondents.

$$P = \frac{Z^2 * P(Q)}{D^2}$$

$$P = \frac{1.96 * 1.96 (0.5 * (1 - 0.5))}{0.05 * 0.05} = 384$$

Where P is prevalence of the problem in this case 50 % prevalence , Z is the 95% confidence at which the data is valid, Q is 1-P, and D<sup>2</sup> the margin of error which represent the sample deviation from the normal population. Therefore, by considering 10 % none response rate and 2 design effect the final sample size was 845 local residents.

### Data quality control

For maintaining data quality, intensive training was given to data collectors and supervisors on how to moderate FGD,

interviews and tape recording. Data collection process was strictly audited day-by-day by the supervisors and principal investigators. During the transcription and translation of the interview, as much as possible we tried to keep the language and sentence structure as they are used by the interviewer and focus group discussants for maintaining data quality. The questionnaire was analyzed using SPSS software. Finally, they were classified into various thematic categories.

### Data Management and Analysis

**Recording-**All data [interview, FGD, and observation] were recorded in both field-notes form and audio recording. Almost around 87 minutes of interview, 231 minutes of FGD data were obtained in parallel to the notes taken during the discussion. All field notes were organized by the date the observation was done and expanded into detailed form of data.

**Transcribing data-**All tape-recorded data were transcribed into English. All transcribed data were labeled the detailed demographic information of informants, the place and time. This is also done with codes of participants. As every participant was given codes before discussions, these codes were used to identify who said what from where.

**Ethical consideration:** The proposal was submitted to the Research Ethics Committee [REC]. Permission letter was obtained from Gamo Gofa Zone Health Office office respectively. Verbal informed consent from each study participant was obtained after clear explanation about the purpose of the study. All the study participants were reassured that they remain anonymous. Names or any personal identifiers were not recorded. Respondents were clearly told about the study and the variety of information needed from them. They were given the chance to ask anything about the study and made free to refuse or quit the interview, the questionnaire or the FGD at any moment they want if that was their choice.

## RESULTS

### Appraisal of participatory health communication planning for controlling malaria

The principles of Johns Hopkins University Bloomberg School of Public Health/Center for Communication Programs Health communication strategy design are the core guidelines to this study. "The steps are discussed in chapter two". Taking the Ethiopian context into consideration, the planning process is going to be examining the components from participation and distribution points of views. Almost every social change planning process starts with examining the existing situation and the environment it embedded. This situational analysis helps to prioritize issues and identify problems. The health promotion planning process at Gamo Gofa Zone is implemented through Woreda National Base Plan. This base plan is prepared every year by various health stakeholders. The planning process consists of woreda bodies and other partners. To make it just uniform across the Zone, the plan is prepared with clear zonal objectives and goals. This attempt to start planning from the baseline and make evidence-based is considerably important. In addition to this, involving partners

is the bulwark to design a feasible strategy. This form of analysis of the real situations is vital. However, according to my informants, the planning process lacks engaging the rural community—the nucleus of the process. It is also not alert to segment various community groups into their context. The segmentation helps to set context-oriented strategies and communication channels to particular socio-economic groups. Plans are route maps as sailors use compass to reach the right coast of the ocean. Similarly, participatory planning strategy allows all parties know what to do, where to start, how to go, and where to end.

### A health extension worker from Mi'erab Abaya woreda says:

*Woreda health office professionals, HEWs and the kebele administrative officials usually plan and disseminate to the general public. But the public is not enough active to execute the plan (HEW).*

### She blames the community for not owning the designated plan. She says;

*These ownership and leadership problems are always an obstacle for our anti-malaria campaigns every time when malaria-peak seasons happen (EW04).*

Similarly, when one key informant is asked about the social dialogue in the planning process, he replied that, his group /HDA/ members do not discuss together, but he always serves as door-to-door messaging agent and tells them to implement the plan what is already handed out by the HEWs. But, the Zone and Arba Minch Zuria and Mi'erab Abaya woreda experts insist that the Zone has a community-based participatory health communication strategy that engages and empowers the people while the dehumanizing planning processes and practices are prevalent. Participatory planning is operationalized in such a way by the Zone. The missing link is both from the zonal health department and woreda professionals. FGD participant from Arba Minch Zuria woreda also strongly rejects the claim as:

*regarding to the malaria control planning process, we have nothing to do with it because the annual health plan of our kebele generates from and planned by woreda experts there at woreda level. With the existing hierarchy, the kebele HEWs introduce and give for us the plan by allocating it for each sub-village in collaboration with kebele officials. Our great responsibilities are to listening them in public meetings, and endorse it as our own 'blue-print'. In such a norm, all development groups [this development groups are composed of 5-7 health development armies (1-5 structure)], then the 1-5 leaders take their share and dictate the members of that particular group. With this very flow, the woreda plan reaches each family vertically (DP, Kolla Shele).*

This participant's argument shows that the malaria planning is not a process rather it is executed in a linear model—a strong absence of horizontal dialogue on what to prioritize as development problem, what resources to use and how to implement it in order to attain a common goal. The woredas employ top-down communication approach. In fact the use of

top-down communication is not a curse by itself. But taking it as a sole model and inhibiting potential-others from their contribution ends up with less sustainability. As a result, the prevalence of malaria ended up being a major treat for the lowland communities. Here is the susceptible extent of the disease.

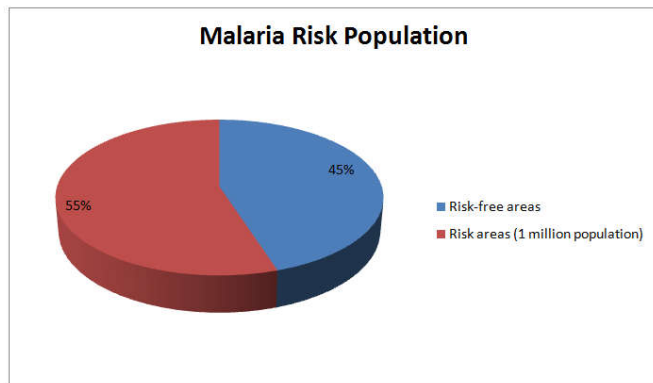


Fig. 1. Malaria risk population in Gamo Gofa Zone

### Communication Approaches

The Communication Model employed by the Health Extension Workers and Woreda/district Health Professionals in the zone is more of linear. The following table summarizes the data elicited from 802 respondents:

No.	Model	Respondents Profile		
		No. of respondents	In %	Remark
1	Top-to-down/linear	537	(67%)	
2	Bottom-up	52	(6.48%)	
3	Transactional/participatory	168	(21.01%)	
4	Mix of all	28	(3.49%)	
5	No defined model	17	(2.12%)	
	Total	802	100 %	

## DISCUSSION

### Lack of participatory health planning for controlling malaria

The concept of building HDA started at the mid of 2011. In practice, the process started with awareness creation and creating model households in rural Ethiopia. However, with its ill-management and poor supervision, the army building practice could not be successful. Later, in 2012, the Zone revisited army building and mobilization mechanisms and started it again by identifying the challenges. As the above table shows above half 422 (52.62%) of the respondents reported that the communication approach is top-down where the community is perceived as passive receiver while only 6.48% participants witness the bottom-up communication approaches. The reform started with a motto 'Health development Army building is realized only by realizing it in the community'. Conversely, in *Gamo Gofa Zone* things are not as they are aspired. The building process has created neither an 'army' nor something else other. It is like a flimsy entity that is incapable of helping the health system in general.

An interviewee from Alge Kebel [*Mi'erab Abaya District*] forwarded that:

"The health army is set to be organized in our kebele. It composes the entire households, primarily women. But the army is not still functioning. All stakeholders are not paying attention to it. No communication and conversation is known at all here since the HDAs are formed [DP07]"

The building process has taken two significant steps: the preparation, where members of the army communicate and plan; and the second, implementation and evaluation, when the planned activities are translated into actions and peer-evaluation on each performance. Of course the idea of HDA is nothing but an institution that facilitates public deliberation to fully implement the sixteen health packages in each family through self-regulated and self-driven motivations and actions in the health development program. Moreover, as women are more close to children, house activities, hygiene and nutrition, the army gives more privilege to them. The tier also helps households discuss and self-support on malaria prevention activities like ITN utilization, IRS and primarily involve in environmental management, and organized larval control. But these gracious roles are not well extracted and exploited with lack of strong management, horizontal communication and participation in the districts. On the other hand, though the HDA is a good structural tier that can bring viable changes if employed well, it has a weakness in its alliance with party structural system. The flow of the structure and the evaluation should be independent and an all rounded to encompass and engage all individuals freely. If this has some affiliation with a specific groups/ideology, then the whole leadership, collaboration and most importantly the *trust* will erode. A leading scholar on Community Building, Jono Bacon asserts this idea. According to Bacon, "for communities and their leaders, trust is a critical component in gaining the support and confidence of each community members. If people in a community don't trust each other and their leaders, they cannot build their social capital [4]. Therefore, in our fieldwork, we observed that some of HDA leaders and structures are affiliated with party membership. So, maintaining trust should be a major task in building the community to be armies for sustainable changes in health in general and malaria control in particular. Similarly, as per Thomas Tuft and Paulo Mefalopoulos's [1] classification of participation types, the health department's practice can be labeled to *Participation by consultation*. This type of participation is an extractive process whereby the community provides consultation and cooperation to answer to questions posed by outside experts. However, this consultative process keeps all the decision-making power in the circle of outside actors[1]. As one participant asserted that "*pseudo participation: they teach us 'what-is-what' from A-z and then we say 'OK.' and go home*".

In debating community development, critical aspects like rural political economy, decision-making role and change sustainability are interwoven. The political economy denotes the concentration of power in the community and exercising it properly. The decision-making is about voicing to self-driven development activities and the sustainability refers to the "it is ours" feeling of the beneficiaries. Dialogue is the means for informed decisions, Brazilian scholar Paulo Freire denounces

the act of inhibiting people from participation; “to alienate human beings from their own decision-making is to change them into objects.”[Ibid] Emphasizing on empowerment, participation and collective process therefore participatory communication for development allows stakeholders to get involved in development process and determine the outcome rather than being imposed on a pre-conceived [i.e. already decided by external actors] outcome (Tuft and Mefalopulos, 2009; Wakgari Deressa, 2005). Because it advances the argument that people excel their involvement in the processes of decision-making and implementation of local and mainstream activities of which they are the real beneficiaries, participatory communication is viewed as an effective strategy for reducing poverty and empowering the poor, and for making progress both inclusive and sustainable. However, participation in development ventures has been *operationalized* in many ways: from “pseudo participation to genuine efforts at generating participatory decision-making” (Ayalew Astatkie *et al.*, 2009), truly, the meaningful involvement of the grass-roots is indispensable in bringing about equity and sustainable social welfare. In development process therefore participation and ownership are all that matter. Often people are more ready to support ideas that emanate from them than outsiders imposition. In *Gamo Gofa* Zone health development process, ownership of malaria prevention activities is weak. The community is not perceived as the center of the solution for malaria prevention. Due to this ignorance, the community has developed a sense of “otherness” and throws all local tasks to the local administrative body and HEWs. In an observation and informal conversation at Zeyise Elgo Kebele, this problem prevails. The villagers were not willing to spray anti-larval chemical while the HEWs wander inside all villages. Regarding dialogic communication, communities whine for its dehumanizing features. The following is an excerpt from the field interview.

*I don't think so whether it is dialogue or not. You may say it whatever you like, but they call us in a public meeting places, we sit down quietly and listen them till they finish. At the middle of it, they ask us, we respond; they probe for comments and suggestions from us to add on what is at-hand. This is how we participate. Don't you call this participation?*

The community believes that discussion resolves problems. It is strength to do things through dialogue; however, it is not fully practiced as it is claimed. Not only in health [malaria] issue, but in other fields dialogic communication makes things easier. Unfortunately, in *Gamo Gofa* Zone, the grassroots are consulted about the pre-conceived things and go back home with their manuals and their ideas too.

## Conclusion

In conclusion, the Zone has no communication strategy to engage the rural community against malaria systematically. In addition, the attempts to control the disease have been challenged by the absence of community ownership. This is resulted from lack of clear communication strategy coupled with abysmal community alienation in the entire process. The

establishment of the Health Development Armies is a viable move made by the Zone to bring about real changes. However, the defocused health communication practices incapacitated locally organized development groups to go nowhere.

## Recommendations

Integrated communication strategy as horizontal health communication should be viewed as an integral part of development plans. One of whose major objectives is to create communication systems or models that could provide opportunity for people to have access to dialogue, and make use of these means in improving the quality of their lives. Since HDA are vital in building a working community, empowerment activities are essential via independent dialogue. Strengthen the community participation and social action as a major goal ranges from a mere gathering of people commenting on project plan to owning every process of it. Folk Media as alternative Rural Community Forum change advocates stress that any communication strategy which ignores the cultural settings of folk media will not be successful. These media are too close to a society's life style and context. Folk arts attract residents in spare times and small celebrations. Music in local setting, paintings, village concert, outdoor celebrations, sport tournaments, agricultural output village exhibitions, school contests and celebrations are important in influencing people's viewpoints. Therefore, utilizing Folk Media and Integrated Communication Strategy as horizontal health communication platform, HDA's should be viewed as an integral part of development alerts for malaria prevention and control.

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**Competing interest**-The author declares that he has no competing interest.

**Abbreviations:** CC-Community Conversations, IDI-In-depth interview, ITNs-Insecticide Treated Nets, IRS -Indoor Residual Spray, HAD-Health development army, FGDs-Focus Group Discussions.

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