

ADDIS ABABA UNIVERSITY
COLLEGE OF HUMANITIES, LANGUAGE STUDIES
AND JOURNALISM AND COMMUNICATION
SCHOOL OF JOURNALISM AND COMMUNICATION

ROLE OF PUBLIC SERVICE ANNOUNCEMENTS AS BEHAVIOR
CHANGE COMMUNICATION TOOL FOR MATERNAL MORTALITY
REDUCTION IN ETHIOPIA

A CONTENT ANALYSIS OF TV PUBLIC SERVICE ANNOUNCEMENTS
FROM THE SAFE MOTHERHOOD INITIATIVE, FEDERAL MINISTRY OF
HEALTH OF ETHIOPIA

BY
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**Role of Public Service Announcements as behavior change communication tool for
maternal mortality reduction in Ethiopia;**

**A content analysis of TV Public service announcements from the safe motherhood
initiative, Federal Ministry of Health of Ethiopia**

A Thesis presented to School of Journalism and Communication in partial fulfillment of
the requirement for the degree of Master of Arts in Journalism and Communication

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Statement by the Examining Committee

This is to certify that the thesis prepared by Yosef Tiruneh; entitled *Role of Public Service Announcements as Behavior Change Communication Tool for maternal mortality reduction in Ethiopia; A content analysis of TV Public service announcements from the safe motherhood initiative, Federal Ministry of Health of Ethiopia*, submitted in partial fulfillment of the requirement for the Degree of Master of Arts in Journalism and Communication complies with the regulations of the university and meets the accepted standards with respect to originality and quality.

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List of Abbreviations and Acronyms

CARMMA: Campaign on Accelerated Reduction of Maternal Mortality in Africa

EDHS: Ethiopian Demographic and Health Survey

FMOH: Federal Ministry of health

GTP: Growth and Transformation Plan

IEC: Information, education and communication

HBM: Health Belief Model

HDA: Health Development Army

HEP: Health Extension Program

HEWs: Health Extension Workers

HSDP: Health Sector Development Program

MDG: Millennium development goals

MMR: Maternal Mortality rate

PNC: Post Natal Care

PSA: Public service announcement

UN: United Nations

UNFPA: United Nations Population Fund

WHO: World Health organization

Definition of Key Terms

Maternal Health: Maternal health refers to the health of women during pregnancy, childbirth and the post delivery period.

Maternal Mortality: the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes (WHO 2010)

Public service announcements: short messages used widely to educate the public on issues of public importance like health, education, civics or other issues.

Reinforcements: Responses to a person's behavior that increase or decrease the likelihood of reoccurrence; Promote self-initiated rewards and incentives

Self-efficacy: The person's confidence in performing a particular behavior; Approach behavioral change in small steps to ensure success

Abstract

The purpose of this study was to explore the role of public service announcements as behavior change tool in maternal mortality reduction efforts in Ethiopia. The study aimed to identify the key awareness messages in the PSAs and sought to see if they were constructed in line with health communication theories and standard PSA design strategies. Content Analysis was used as the main methodology for this study. Interview with the PSA production team was also used to supplement the content analysis. Health Belief Model and Social Cognitive Theories were used to inform the analysis and discussion in five thematic areas (The Awareness Message in the PSAs, the Instructions and Cues to Action, Content Construction, Mechanical and Stylistic Factors of the PSAs and the Messenger).

The findings from the study show that awareness messages were communicated on the dangers of home births and other barriers to safe motherhood including cultural beliefs, practices and health facility problems. Most of the designs of the PSAs prove to be in line with recommendations from the Social cognitive theory and health belief model as well as effective PSA designing strategies. However, in-depth theoretical foundations have not been laid in some of the PSAs. There were gaps in incorporating key community beliefs that prevent women from seeking care. Reinforcement messages to adopt the behavior recommended and source of information for further inquiry for pregnancy related concerns have not been clearly stated to incentivize audience to think about taking actions. Creative and artistic appeals for the messages have not been dealt with adequately in the PSAs. Desk reviews of evidence may not necessarily provide full picture of problems. Therefore, contextualizing theoretical base and pretesting of the PSAs among the target audience could have provided more insight and community wisdom to identify practical appeals to incorporate in the PSAs and motivate behavior change.

CHAPTER ONE

1. Introduction

1.1. Background

Maternal mortality – the death of a woman during pregnancy, childbirth or the 42 days that follow birth – remains one of the leading causes of death among women of reproductive age in developing countries. While motherhood is often a positive and fulfilling experience, it is linked to suffering, ill health and even death for too many women in areas where proper health care is lacking during delivery. More than 800 women die every day due to complications relating to child birth globally (WHO 2010). In 2010, 287 000 women died during and following pregnancy and childbirth. Almost all of these preventable deaths occurred in low-resource and low health seeking behavior settings like Ethiopia, and most could have been prevented (WHO 2012). In Ethiopia, nearly 20,000 new mothers die each year, mostly because more than 70 percent of all deliveries occur at home without a health professional to help (CARE 2010).

Improving maternal health is one of the millennium development goals that is lagging behind in Ethiopia with more than 400 deaths per 100, 000 live births annually (FMOH 2013). The Ethiopian government notes that maternal mortality reduction is now the single most important priority of the health sector, as incorporated in the countries' Health Sector Development Program (HSDP). In the fourth phase of the plan (HSDP IV), it is indicated that the country aims to reduce maternal mortality rate from 676/100,000 live births (2011) to 267/100,000 live births in 2015 (FMOH 2013).

Although availability of transportation, access to health facilities are the major reasons, lack of awareness on the dangers of home birth and cultural and traditional beliefs on child birth are found to be causes of the low health facility delivery and ultimately death of mothers. Only 23 percent of births are delivered by a skilled provider (FMOH 2013). Battling cultural beliefs that put the lives of children and mothers at risk is a challenge for the country. According to the Ethiopian Demographic Health Survey (2011), more than six women in every ten (61 percent)

stated (believed) that a health facility delivery was not necessary. These are reflected in the country's high mortality rates. Even in areas where there are adequate facilities and resources to deliver in health facilities like Addis Ababa, the skilled birth attendance rate stands at 72.6 %.

Studies note that that lack of information is one of the factors that prevent women from receiving or seeking care during pregnancy and child birth (WHO Fact Sheet 2012 May). At the individual level, variables related to awareness and perceptions are found to be much more relevant for skilled maternal service utilization (Abebaw W. et.al 2013). The gaps in incorporating socio-cultural factors when providing care at health facilities have also been emphasized by the ministry of health and its partners in the area of health facility utilization.

Among the various strategies targeting factors affecting health service delivery, mass media intervention to raise awareness about the dangers of home birth is considered as important as making the professional delivery services available (Charlotte 2010, Solomon 2013). Taking the importance of educating the public and providing adequate information about the dangers of home births, the Ethiopian government and development partners have been implementing behavior change interventions and social mobilization using the health development army, the health extension program and mass media. The interventions in general aim to tackle obstacles such as harmful traditional beliefs and practices that deter pregnant mothers from seeking professional help. By doing this, mothers and her family as well as the community are sensitized to shift community norms, recognize the value of maternal health care during birth and the early postnatal period.

The behavioral interventions emanate from the broad direction of the Ethiopian health policy states that information, education, and communication (IEC) for health would be a priority in health interventions as cited by Binyam (2013). With that background and spearheaded by the Federal Ministry of Health, different partners working in the area of maternal mortality reduction have produced and aired public service announcements (PSA), serial drama, radio features and other productions in TV and Radio. Public Service Announcements have particularly been used over the past several years mainly focusing on health institution delivery with skilled professionals.

1.2. Statement of the Problem

Women constitute half of our population. As with other developing countries, women in Ethiopia play significant role in ensuring the wellness and safety of the family and their death during child birth leaves families broken. It is with this core principle that improving women's health, especially reducing maternal deaths is incorporated in the millennium development goals and Ethiopia's health sector development program priorities. Various interventions targeting improvement of the health system, cultural and traditional attitudes discouraging institutional child delivery and logistical barriers have been given priority (FMOH 2013). Among the interventions that shift community beliefs and traditions hindering pregnant women from seeking professional care are media interventions using Public Service Announcements as behavior change communication tools.

Public service announcements are used widely to educate the public on issues of public importance like health, education, civics or other issues. According to Atkins (Atkins 2001), they are also the ideal formats if we are calling for a specific action from the audience. The Ministry of Health has also been airing PSAs on radio and TV aimed at promoting child birth at health facilities, as low utilization of health care during childbirth has been identified as one of the leading causes of maternal mortality in Ethiopia (EDHS 2011). However, to what extent are the messages developed based on established health communication theories and media practices was a question open for assessment. This study, therefore, attempts to explore if the messages are designed based on health communication theories and effective PSA designing strategies to motivate care seeking behavior.

1.3. General Objective of the study

The general objective of this study is to analyze the contents of the public service announcements on maternal mortality reduction with specific emphasis on messages that encourage childbirth at health facilities.

1.3.1. Specific Objectives

- Identify the key messages embedded in the public service announcement spots.

- Identify if the messages are designed following the effective health communication models and PSA designing strategies for consistency, clarity, action required and other factors.

1.4. Research Questions

Q1. What are the key messages in the promoting health facility delivery PSAs?

Q2. To what extent are the messages designed following health communication models (health belief model and social cognitive theory) and effective health PSA designing strategies to create awareness and call action?

1.5. Significance of the Study

Despite the cost effectiveness and message power of public service announcements, very little is done in terms of both production as well as research on various aspects of PSAs in Ethiopia. But studies in various health campaigns featuring public service announcements as integral part of the initiative in other parts of the world have shown that PSAs indeed can be used as important tool for creating awareness in various social causes. According to Atkins (2001), as the messages are short and accompanied by advice of action to be taken, they are successful in shifting attitudes and motivating behavior change. Analyzing the contents of the PSAs helps to gauge the media intervention progress and shape strategies and resources to the proper direction. The study can also be used as a springboard for other researchers to further study the impacts of Public Service Announcements in Maternal Mortality Reduction in Ethiopia.

1.6. Scope of the Study

The study analyzed the contents of TV Public Service Announcements that emphasize the importance of skilled birth attendance targeting pregnant women, their families and the public in general. The PSAs are produced by the Federal Ministry of Health and aired over the period of one year. The study focused on the contents and design of the messages in the TV PSAs in light of health communication theories and models. The actual messaging of the PSAs was compared with the theoretical recommendations of designing effective Health Public Service

Announcements. Effectiveness levels and impacts of the PSAs were not in the scope of this study.

1.7. Organization of the Thesis

The thesis consists of five chapters including this introductory portion. The first (present) chapter gives general background, statement of the problem, objectives and scope of the study and organization of the thesis. Chapter two provides the theoretical framework and a review of the literature. It describes the Millennium Health development goals that are taken to be the foundation of the health intervention priorities. It also highlights the global, continental and local context of Maternal Mortality, success and gaps in meeting reduction goals of deaths. The Social Mobilization and health promotion and communication interventions addressing maternal mortality have also been discussed. The theoretical frameworks underpinning this particular study have also been discussed in detail. Chapter three deals with the methods of the study including design, sampling, data collection and analysis modalities of the study. Chapter four presents and analyses the findings obtained by the methodologies employed in the study. Chapter five is the summary of the findings and the conclusion.

CHAPTER TWO

2. Literature Review and Theoretical Framework

2.1. Introduction

In the literature review section of this paper, the Health Millennium Development Goals (MDG)s are discussed in the first sections of the literature, with emphasis on Maternal Health. Progress towards meeting the target of 75 percent reduction in maternal mortality around the world and remaining challenges have also been highlighted. The literature review also includes the various interventions including behavior change communications in Ethiopia aimed at saving the lives of mothers during childbirth. As the main focus of the study is on Public Service Announcements on Maternal Mortality reduction efforts, due emphasis have been given to include the literature justifying the use of it and the behavior impacts in health programs. The theoretical frameworks considered for the current project have also been discussed in detail.

2.2. The Milleium Development Goals

It was back in 2000 that world leaders came together at United Nations Headquarters in New York to adopt the United Nations Millennium Declaration. In the declaration, the leaders committed their nations to a new global partnership to reduce extreme poverty and setting out a series of time – bound targets making 2015 the deadline. These targets have become known as the Milleium development goals. All 189 United Nations member states at the time (there are 193 currently) and at least 23 international organizations committed to help achieve the Millennium Development Goals by 2015, the goals are:

1. To eradicate extreme poverty and hunger
2. To achieve universal primary education
3. To promote gender equality and empowering women
4. To reduce child mortality rates
5. To improve maternal health
6. To combat HIV/AIDS, malaria, and other diseases
7. To ensure environmental sustainability
8. To develop a global partnership for development

In General, as of 2013, progress towards the goals was uneven. Some countries achieved many goals, while others were not on track to realize any. A UN conference in September 2010 reviewed progress and concluded with the adoption of a global plan to achieve the eight goals by their target date. The new commitments targeted women's and children's health and new initiatives in the worldwide battle against poverty, hunger and disease (MDG Report 2013)

2.3. The Health Millennium Development Goals

Among the eight Millennium development goals, three of them are directly related to health. Millennium development goal 4 is concerned with reducing child mortality while goal 5 deals with maternal mortality targets. Combating HIV/AIDS, Malaria and other diseases is also another health MDG, nations signed up to make progress (The Millennium Declaration 2000)

2.4. The Maternal Mortality Reduction Goal; Progress and Gaps

2.4.1. The Global Perspective

Maternal death is an indicator of disparity and inequity between men and women. It is also a sign of women's place in society and their access to social, health, and nutrition services and to economic opportunities (UN 2000). The disparities in maternal mortality rates between countries in the developed world and the developing world are also grave. While women in north Europe have a 1 in 4,000 likelihood of dying from pregnancy related causes, for those in Africa the chance is 1 in 16 (WHO 2012). The tragedy is that these women die not from disease but during the normal, life-enhancing process of procreation. Most of these deaths could be avoided if preventive measures were taken and adequate care was available.

Ninety Nine percent of all maternal deaths occur in developing countries, of which 56 percent are in sub-Saharan Africa and 29 percent are in Southern Asia. Globally, an estimated 287 000 maternal deaths occurred in 2010, a decline of 47% from levels in 1990. Sub-Saharan Africa (56%) and Southern Asia (29%) accounted for 85% of the global burden (245, 000 maternal deaths) in 2010. At the country level, two countries account for a third of global maternal deaths: India at 19% and Nigeria at 14%. Additionally, the following seven countries account for 3% to 5% of global maternal deaths each: Democratic Republic of the Congo, Pakistan, Sudan,

Indonesia, Ethiopia, United Republic of Tanzania and Bangladesh. Together with Afghanistan, these 10 countries comprised 60% of the global maternal deaths reported in 2010.

Globally the annual percentage decline in maternal mortality rates (MMR) between 1990 and 2008 was only 2.3%. Among countries with an MMR in 1990, it is evident that 30 countries have made insufficient or no progress, including 23 from sub-Saharan Africa. These estimates provide an up-to-date indication of the extent of the maternal mortality problem globally (WHO 2012).

2.4.2. Maternal Mortality in Africa

Owing to the absence of various socio economic settings suitable for attaining optimal health for mothers, too many mothers die because of complications during child birth in Africa. A woman in Africa has a one-in-39 lifetime risk of dying from pregnancy and delivery-related complications compared to 1 in 4000 in developed countries. Over one million children are left motherless and vulnerable due to these deaths - and children who have lost their mothers are 10 times more likely to die prematurely than those who have not (CARMMA Report 2013). Despite having the highest maternal mortality ratio among all regions, sub-Saharan Africa saw mortality ratios fall by 41 per cent over the past two decades, from 850 maternal deaths per 100,000 live births in 1990 to 500 in 2010 (MDG Report 2013).

The 2012 Report *Trends in Maternal Mortality: 1990 to 2010* by the world Health Organization (WHO), United Nations Children's Fund (UNICEF) and the United Nations Population Fund (UNFPA) noted that while there were 850 deaths per 100,000 live births in 1990, that rate had declined to a regional average of 500 deaths per 100,000 live births by 2010. No fewer than 24 of the 46 African countries outside North Africa achieved a reduction of more than 40 percent. The report shows that in 2010, while the global maternal mortality ratio was 210 maternal deaths per 100,000 live births, the rest of Africa outside North Africa had the highest maternal mortality ratio at 500 maternal deaths per 100,000 live births.

Among the more prominent success stories for Africa, the report shows that Equatorial Guinea has achieved MDG 5, one of the 10 countries worldwide that did so during the period. Its

maternal death rate dropped by 81 per cent, from 1200 to 240 per 100,000 live births. Five countries in Africa – Botswana, Lesotho, Namibia, South Africa and Swaziland, showed an increase in maternal deaths from 2000 to 2005 on account of HIV, but their maternal mortality rates are currently dropping, also as antiretroviral treatments has become more available. The 2013 Reports from the UN agencies and CARMMA say, while substantial progress has been made to drive down maternal mortality globally in the past 20 years, the declines are insufficient and many African countries still have to deal with the remaining challenge of ensuring the health of mothers.

African leaders have met several times over the past ten years to form a common stand, noting that, the high death rate is unacceptable as most of the deaths can be avoided. The common voice was that a concerted push is needed as only few countries in Africa are on track to reach the Millennium Development Goal 5 (MDG 5) target of reducing maternal deaths by 75 per cent by 2015. The African Union Commission initiated the Campaign on Accelerated Reduction of Maternal Mortality in Africa (CARMMA) in recognition of the daunting challenge of reducing maternal mortality in most African countries. The campaign is supported by United Nations Population Fund (UNFPA), the World Health Organization (WHO) and the United Nations Children Fund (UNICEF). CARMMA was officially launched in May 2009 with the aim of intensifying the implementation of the Maputo Plan of Action for the reduction of maternal mortality in the Africa region (CARMMA Report 2013).

CARMMA uses policy discussions, advocacy and community social mobilization to enlist political commitment. It aims to increase resources and bring about societal change in support of maternal health, in a country-driven undertaking. To date, 39 countries have launched CARMMA, and half of the African Union's member states have strengthened their health systems, developed a monitoring and evaluation system and integrated HIV, reproductive health and family planning services. Other local initiatives are also underway towards meeting the MDG5 targets and prevent the unnecessary deaths of mothers including the one Ethiopia undertakes through its Health Extension Program and Women Development Army and mass media, among others.

2.4.3. Maternal Mortality Reduction Efforts in Ethiopia; Success and Gaps

Despite major gains in improving the health of the people, Ethiopia remains one of the Sub Saharan African countries where a large number of women die due to complications of child birth (Maternal Mortality). Each year, an estimated 25,000 women die of complications during childbirth, and another 500,000 suffer long-term disabilities from pregnancy and childbirth complications (UNFPA 2012). The country also fares as one of five countries that together account for 50 percent of the world's maternal deaths. Maternal mortality rate is declining too slowly from 990 per 100,000 live births in 1990 to 676 deaths per 100,000 live births in 2011, registering a 31 percent reduction (EDHS 2011). A 2012 estimate from independent organizations (WHO, UNICEF, UNFPA and World Bank), using model estimates based on implementation of high impact interventions, showed a further decrease in mortality of 350 death per 100,000 live birth. Ethiopia intends to bring this down to 267 by 2015. This shows that Ethiopia is among the 20 African countries on track to meet MDG5 (FMOH 2013).

In general, the high maternal mortality rates in the country are attributable to various factors. On the supply side, factors include high levels of unskilled home delivery, little postnatal care follow-up, poor access and utilization of emergency obstetric and newborn care services, very low critical life-saving services, shortage of skilled midwives, a weak referral system at the health center level, and under financing of services. On the demand side, cultural norms and traditional beliefs towards home births distance to functioning health centers, and financial barriers were found to be the major factors associated with maternal and neonatal mortality in Ethiopia (EDHS 2011).

The Ethiopian government notes that it is committed to ending the preventable maternal deaths by targeting to meet goals set in the United Nations Millennium development goals and the country's growth and transformation plan. The Health Sector Development Plan IV, incorporated in the growth and Transformation Plan, aims to reduce MMR from 676/100,000 live births to 267/100,000 live births. Improving access to and strengthening facility-based maternal and new born services is one approach of the plan. This is also a Health Sector Development Plan (HSDP) strategic objective.

According to the Federal Ministry of Health, many of the indicators of maternal health improvement have shown marked increase over the past few years, owing to strong commitment for maternal health care. In 2010/11, antenatal care coverage (at least one visit during pregnancy to health facilities) increased from 89.1% to 97.4%, postnatal care (medical care after child birth) coverage increased from 44.5% to 50.5%, while the percentage of deliveries attended by skilled health personnel increased from 20.4% to 23.1%. Conversely, clean and safe delivery coverage by health extension workers (HEW) declined from 13.2% to 11.6%, much less than the planned coverage for the year (FMOH Special Bulletin, 2013).

Skilled attendance at birth is the most important intervention in reducing maternal mortality and one of the MDG indicators to track national effort towards safe motherhood. The percentage of deliveries assisted by skilled health personnel increased from 20.4% in 2010/11 to 23.1% in 2011/12, but remained below the target of 49.2% set for the year. The HSDP IV target is 62 %. There was wide variation across regions, ranging from 14.4% in Benishangul Gumuz to 72.9% in Addis Ababa. Despite such positive developments, however, the percentage of skilled attendance at birth is still very low, and further efforts are needed for promoting skilled birth care.

Addressing the gaps in utilization of health facilities and getting skilled birth attendance relies on tackling the barriers, identified by maternal health experts and adopted by the ministry of health as “Delays”. The outcome of the pregnancy is most notably affected by delays in getting the proper medical care. These delays are described as the three phases of delay (3):

Delay I: Lack of information and adequate knowledge about danger signals during pregnancy and labor; cultural/ traditional practices that restrict women from seeking health care; lack of money.

Delay II: Out of reach of health facilities; poor road, communication network, community support mechanisms.

Delay III: Inadequate skilled attendants; poorly motivated staff; inadequate equipment and supplies; weak referral system, procedural guides.

These delays were clearly identified by women and their families during the 2011 Ethiopian Demographic and Health Survey when asked why they have not delivered their babies in a health facility. More than six women in ten (61 percent) stated that a health facility delivery was not necessary, and three in every ten (30 percent) stated that it was not customary. Fourteen percent of women said that the health facility was either too far or that they did not have transportation. Rural women were more likely than urban women to report that health facility deliveries are not customary, at 31 percent versus 17 percent, or that health facilities were too far or they had no transportation, at 15 percent versus 8 percent.

Care for the mothers and the neonate right after delivery (Postnatal care) is also a very important predictor of the survival of the baby and the mother. A large proportion of maternal and neonatal deaths occur during the 48 hours after delivery, and these first two days following delivery are critical for monitoring complications arising from the delivery (Ahmed A. 2010). Thus, postnatal care is important for both the mother and the child not only to treat complications arising from the delivery, but also to provide the mother with important information on how to care for herself and her child.

The Federal Ministry of Health (2013) notes that strategies have been designed and relevant activities are being performed to remove the bottlenecks hampering access to safe motherhood services, such as harmful traditional beliefs and practices, poor infrastructure, shortage of transportation facilities, and inadequate care at health facilities. The reports from the ministry and development partners note areas that need special attention need to be tackled and efforts doubled to reach targets and save the lives of millions of women in Ethiopia.

2.5. Social Mobilization, Behavior Change Communication and Media Interventions

2.5.1. The Health Extension Program Modules

The government of Ethiopia started deploying specially trained new cadres of community based health workers named Health Extension Workers (HEWs) in 2004. This initiative has been called the Health Extension Program (HEP). This innovative health care delivery scheme was aimed at providing essential promotional and preventive health care services. According to the Ministry of

Health (2007), the HEP has been introduced in recognition of the failure of essential services to reach the people at the grassroots level, in particular to underserved rural population. It is designed based on the philosophy that “If the right knowledge and skill is transferred to households they can take responsibility for producing and maintaining their own health” (Health Extension and Education Center & FMOH, 2007, p. 2).

The HEP is also regarded as a principal means of implementing the Health Sector Development Program (HSDP) by bringing key maternal, neonatal and child health interventions to the community. It also makes note of the concept and principles of comprehensive primary health care (Medhaniye et al 2012). The main components of the HEP are disease prevention and control, hygiene and environmental sanitation, family health, and health education and communication. The Health Extension program is also designed in line with the health policy of Ethiopia that emphasizes on the important role of information and social mobilization for behavior change.

“.....Information, Education and Communication (I.E.C) of health shall be given appropriate prominence to enhance health awareness and to propagate the important concepts and practices of self-responsibility in health.” pp 6, Health Policy and Strategies, 1993.

This strategic role includes all activities, related to general health information through the media and social mobilization to trigger awareness of critical health issues as well as behavioral change (Health Policy and Strategies, 1993). The HEP strategic document (2007) also notes that the program came as an integral part of the health system serving as the primary vehicle for prevention, health promotion, behavioral change communication, and basic curative care.

Since HEP considers maternal and child health tracer indicators of good health, HEWs give special attention to family health. With the aim of reducing maternal mortality, HEWs are trained on how to provide care to pregnant mothers through pregnancy, birth and postnatal period. They inform pregnant mothers on safe motherhood when they provide antenatal care (ANC), birth and post natal care (PNC).

Impact assessments of the Health Extension program that looked at improvements in health outcomes, positive behavior and attitude change as well as community empowerment have

shown mixed results. For example, Ali K. et al (2010) remarked that between the year 2008 and 2010, the HSEP significantly contributed towards observed improvements in the maternal and child health indicators including contraceptive use, antenatal care, postnatal care, and improvements in fully immunized child.

According to a 2011 study conducted by L10K Project of John Snow International (Ali K. et al, 2011), the diffusion model as an approach to health behavioral change is working. Beneficiaries reported changed attitudes and behavioral practices in preventive aspects of maternal and child health. Community informants and district and regional program coordinators say that mothers and children are regularly monitored by HEWs. Access to family planning, antenatal and postnatal care services has improved, and maternal and childhood disease incidences have decreased as a result.

Medhaniye et al (2012) also reported that Ethiopia's HEP has shown tangible positive impacts on community health, in disease prevention, family health, and environmental hygiene and sanitation. Hailom Bantiyirga (2011) even went on to say that what is more important about Ethiopia's HEP program is that it has shown that population behavior patterns can be changed to be more favorable to good health

In contrast, Araya et al (2012) as cited by Amare (2013), found that HEP contribution to the improvement in maternal health indicators such as health facility delivery and postnatal checkup were insignificant. Also, evaluating the impact of HEP, Admassie et al (2009) indicated that the program did not have statistically significant affects on prenatal and post natal care indicators. Amare (2013) in her study in Tigray region also noted that the impact of HEWs in promoting healthy behavior on maternal health outcomes was found unfavorable...

“There could be many reasons for that including the health-seeking behavior of the mothers. Literature suggested that maternal health care utilization in Tigray depends on many factors. Mothers may not come because of distance, lack of knowledge about the service, responsibilities at home so they don't have time to visit, and problems related to the service provider side. Therefore, these reasons and ways to address them need thorough investigation.” pp 40.

In general, it can be noted that with all its limitations and gaps, the health extension program is serving as a vehicle to create awareness and produce knowledge among women and the community about the dangers related to home births, importance of contraceptives and pre and post delivery follow ups.

2.5.2 The Health Development Army

One of the latest initiatives by the Ethiopian government, addressing the maternal mortality challenge, is the Health Development Army. The initiative aims to create community sensitization and awareness with full ownership where women take the majority share of implementation. The initiative basically, aims at scaling up best practices of the Health Extension Program with particular emphasis on improving reproductive, maternal, and neonatal and child health (HSDP IV 2011). In the initiative, women are organized into smaller groups in their neighborhoods and play active role in identifying bottlenecks and influence uptake of critical Maternal and neonatal health services in their communities (HSDP IV, 2011). The 2012 National Road Map for Accelerating Reduction of Maternal and Newborn Mortality and Morbidity in Ethiopia also set the objective to work through Health Development Teams.

HDA refers to an organized movement of the community through participatory learning and action meetings. Organizing a functional HDA requires the establishment of health development teams (HDA groups) that comprise of up to 30 households residing in the same neighborhood. The health development team is further divided into smaller groups of six members, commonly referred as one-to-five networks. The leaders of the health development teams and the one-to-five networks are selected by the team members. The main criteria for selection of the leaders are being a model family and having the trust of the members in mobilizing the community. The formation of the health development teams and the one-to-five networks is facilitated by HEWs and the kebele administration.

Prior to the launch of the Health Development Army, Ethiopia has been implementing the health extension program using local technologies and the skill and wisdom of the communities. Similar context is used in the Health Development Army Scheme. Promoting community

mobilization and adoption of healthy lifestyles is the major approach undertaken by the Ethiopian Government in the implementation of the Health Development Army (HDA).

According to the Annual Report of FMOH (2013), the organization and mobilization of the HDA started in Tigray and Southern Nations, Nationalities and Peoples (SNNP) Regions in 2010/11 and was expanded to all agrarian regions to capacitate families who are lagging behind in terms of adopting safe health practices. In particular, the strategy used in Tigray for HDA formation was the women centered one-to-five network development, called Women Development Group (WDG) formation, while the other agrarian regions set up mixed (male and female) HDA groups. The HDA is designed to accomplish the following critical tasks: (i) identify locally salient bottlenecks that hinder families from utilizing key services and implementing the HEP, and prioritize those that they want to address as a team; (ii) come up with feasible strategies to address these problems; (iii) implement the strategies; and (iv) evaluate their activities (FMOH, 2012/13).

One of the major activities of the HDA includes monthly meetings to discuss birth preparedness and facilitate the participation of health workers from Primary Health Care Units. HEWs and HDA disseminate information to create demand and awareness about pregnancy related danger signs and the benefits of seeking skilled attendance at delivery. In the 2012 Maternal Health Road Map, it is noted that establishing health development army enables community members to be well aware of greater responsibility for their health and have a better decision making approach on health issues.

In one of the meetings of the women development army, the researcher witnessed in January 2013 in Aleta Wondo town in Oromia regional state, among a group of journalists, women were discussing their experience with pregnancy and child birth over a coffee ceremony. They talked about the contrast between giving birth at home and getting a safe delivery at a health facility. The women said they are now in a position to seek skilled delivery after they were educated about safe delivery. In a similar tour to the area witnessed by Dr Ruth Jackson of the Australian development research Institute (2013), the writer noted....

“...when women give birth at home they pray to God to help them. Their mother-in-law is usually the birth attendant. One woman who has had two children said that she went to the health centre for the second birth as she was in severe pain. Another woman described how her neighbor gave birth at home but had to be transferred to the hospital because of severe bleeding.” Pp 2

In an article on the *Guardian* Newspaper (Claire Provost, January 12, 2014), Ethiopia’s health minister was quoted as noting that the health development army provided insight on maternal mortality causes and skilled birth attendance barriers.

“...volunteers of the health development army are role models and change agents for social transformation in each village across the country. The idea is that there are "trendsetters" in every community, and that others can be persuaded to admire and, eventually, copy their behavior. The biggest successes have come from targeting "cultural and attitude-related bottlenecks, which limit rural women from taking up services even when they are available” (Par 3)

As the Health Development Army scheme was introduced just two years ago, impact assessments and researches have not been done to measure success, but government structure reports have shown that the scheme is becoming instrumental particularly in addressing maternal mortality issues related to behavior barriers.

In Tigray region, the health development army helped the government understand why women were not giving birth in health facilities. The army discovered women were fearful of the traditional stretchers used to carry them to hospital (which had become associated with bad luck) and did not want to go without the traditional coffee and religious ceremonies they could get at home. Recognizing such situation, the mother mentors at Korem Health Center in Tigray, Ethiopia, started performing the traditional Ethiopian birth ceremony at their health center to motivate pregnant women to deliver at the facility. They contributed money and started preparing *genfo* and the coffee ceremony in early 2013 for women delivering at the facility. As a result, many women now deliver at the health center. According to the mother mentors, since they started bringing the ceremony to the facility, 59 mothers has given birth at the health center,

of whom 12 are HIV-positive (MSH, 2013). This led to changes including a newly-designed stretcher and plans to bring coffee beans, traditional food, and religious leaders to health facilities. The changes in behavior are all because of the information that they get from their neighbors, from their friends and so on. That is how they break all those cultural norms (ARM Special Bulletin of FMOH, 2013).

But the story is not all success, despite the promised potential and progress in some regions of the country in employing the Health Development Army as to tackle behavioral bottlenecks of maternal health, the implementation remains far behind expectations (FMOH, 2013). Some of the challenges identified include lack of commitment and low level of skills and experience on the part of management in implementing HDA and lack of supportive supervision. In an effort to fill gaps, capacity building was carried out based on the healthy behavior bottleneck analysis in 2011/12. In particular, the training emphasized on improving utilization of high impact maternal and newborn health services, and it is facilitated by HEWs with support from the primary health care unit and the woreda health office.

2.5.3. Mass Media Interventions and Health Behavior Change

Exposure to mass media provides increased awareness and knowledge, as well as changes in attitudes, social norms and behaviors that may lead to positive public health outcomes (Hornik, 2001). Mass media campaigns are the most cost-effective and scalable way of increasing health outcomes by creating awareness and encouraging *healthy* behaviors (for household interventions, such as breastfeeding) and creating awareness and encouraging *health-seeking* behaviors by building demand for healthcare services (DMI, 2012). According to development Media International (2012), in most African countries over 75% of people regularly listen to radio or watch TV, and these numbers are increasing every year. It is possible to reach a target audience by broadcasting on a small number of popular stations (even if that audience is poor, rural women). Because of their ability to scale, mass media campaigns are over 100 times more cost-effective per person reached than community-level behavior change interventions, such as street theatre or peer-group education (DMI 2012).

A 2011, Westoff et.al study focused on the impact of radio and television exposure on reproductive attitudes and behavior, with respect to HIV/AIDS. The general conclusion was that media exposure is significantly related to most of the dimensions involved, although there are distinctions between television and radio exposure in different parts of the world, and sometimes between women and men. Greater media exposure is associated with a desire for fewer children, higher rates of contraceptive use, and fewer births. Greater media exposure also is associated with more knowledge about causes and prevention of HIV/AIDS, as well as with supportive attitudes toward people who are HIV-positive.

Mass media messages can be promoted for a short or long period of time, and may be presented alone or linked to other program efforts (Wakefield, 2010). Corbet (2013) cites a 2012 maternal mortality study in Nepal which noted that, in countries where mothers-in-law and husbands make family decisions around maternity care and place of delivery, it is important to promote messages to all members of the public, not just to the pregnant women who attend antenatal visits in a health care facility. In order to have the intended benefits, the desired mass media message should be derived from the use of the 'knowledge to action processes. The knowledge to be presented needs to be selected and adapted to fit the local context (Graham et.al, 2006). Barriers to changes in childbirth practices may involve geography, finances, gender or social inequities, or cultural norms. If policies are already in place to narrow the gap in terms of providing adequate care, then cultural norms may be one of the barriers addressed through mass media (Corbet, 2013).

Mass media campaigns can target multiple causes of child and maternal mortality, rather than focusing on a vertical intervention. In each case, the messages can be designed to raise awareness of the symptoms and to increase demand for commodities and services by encouraging treatment-seeking behavior where appropriate. A 1997 study by Westoff and Bankole found that in Africa exposure to radio, television, and print media was "significantly and often strongly associated with positive reproductive behavior even with all of the many controls imposed" (Westoff and Bankole, 1997). Two years later the authors reported similar results for Pakistan, India, and Bangladesh (Westoff and Bankole, 1999).

A Ugandan study (Gustav Asp et.al, 2014) noted that birth preparedness (i.e. the preparations for childbirth made by pregnant women, their families, and communities) increases the use of skilled birth attendants (SBAs) and hence reduces maternal morbidity and mortality. The study indicated that increased reading of newspapers can enhance birth preparedness and skilled birth attendance. Apart from general literacy skills, this requires newspapers to be accessible in terms of language, dissemination, and cost.

2.5.3.1. Challenging Cultural Attitudes through Mass Media in Ethiopia

The Ethiopian Ministry of Health and its partners are working on interventions aimed at removing bottlenecks hampering access to safe motherhood services, such as harmful traditional beliefs and practices, poor infrastructure, shortage of transportation facilities, and inadequate care at health facilities. The interventions address the three delays in seeking appropriate medical care for an obstetric emergency, reaching an appropriate emergency maternal care facility, and receiving adequate care when the facility is reached. Most of the interventions are showing progress. However, although increasing, the percentage of deliveries assisted by skilled birth attendants (which is considered as the single most important intervention for reducing maternal mortality) was still very low (23%) in 2011/12. These relate to deep rooted traditional and cultural beliefs concerning childbirth and health system barriers requiring multi pronged solutions.

In addition to the large Health Extension Program and Health Development Army, mass media is used extensively to reach mothers and families with messages of awareness about the dangers of home births and encouraging skilled health facility birth. The country's progress towards achieving the maternal mortality goal of the MDGs relies on the success of this particular indicator (FMOH Annual Report 2013). The strategy of using mass media interventions is based on prior success of mass media based health campaigns to supplement large scale programs or campaigns in different parts of the world.

Many of the health programs focusing on maternal and newborn health have different components and social and behavior change communication is usually part of them. Spearheaded

by the federal ministry of health, different partners working in the area of maternal mortality reduction have produced and aired public service announcements, serial drama, radio features and other productions in TV and Radio. In Ethiopia, there is strong evidence that radio and TV campaigns alone can convince families to adopt behaviors that will save lives. For example, a radio campaign targeting trachoma in Ethiopia achieved significant reductions in the prevalence of dirty hands, ocular discharge and trachoma, all without the use of antibiotics (DMI, 2011). Mass Media have also played significant role in reducing child mortality in Ethiopia. A similar approach is taken into consideration in the fight against maternal mortality.

In one of the recent initiatives, The National Safe Motherhood Taskforce declared January 2013 as Safe Motherhood Month as part of a wider campaign to promote Reproductive, Maternal, Newborn and Child Health using the slogan “No mother should die giving birth”. The Safe Motherhood Campaign generated significant media coverage promoting institutional delivery and addressing the three delays that contribute to maternal mortality (Ethiopian Midwives Association Newsletter Volume 1, 2013). The campaign brought together community leaders, celebrities, politicians and goodwill ambassadors to deliver the message that skilled birth attendants save lives. The campaign was designed to increase health seeking behavior of the community and promote the benefits of midwifery care. It included brochures and posters, as well as TV and radio interviews featuring top midwives discussing their professional achievements.

2.6. Public Service Announcements and Health Communication Campaigns

2.6.1. What are Public Service Announcements?

The American Ad Council defines Public Service Announcements/Advertising (PSA) as those all advertising message which inform, educate, and motivate the public about non-commercial issues, such as family planning, AIDS and other health issues, political ideology, environmental concern, human rights, charitable activities, fund raising and more public concern in the mass media by the means of payment or free of charge. In the early period, the PSAs space, materials were free but practice has somehow changed recently. Nowadays PSAs are sponsored by the

public trust, government, civil service organization, private sector included media house themselves. The main motto is creating awareness to the public, social welfare and address the public concern issue (Bill, 2007)

2.6.2. Public Service Announcements and Health Literacy

Through out history, nations have used various means to preserve their well being and continuity as generations. Maintaining good health of its people has been the priority of governments and civil societies around by providing promotive and curative health services to populations. In countries where majority of health problems are related to lack of basic awareness on disease causes, information, education and communication campaigns have resulted in improved health (WHO Fact sheet, 2011). In the more developed societies, numerous government agencies and health associations have sought to educate and persuade the public to adopt healthy practices or to avoid behaviors that pose a risk to health. In the United States, where public service broadcasting obligations took form, the broadcast media have provided free slots for health PSAs; some newspapers and magazines have felt the responsibility to allocate free space for print messages (Atkins 2001).

Public service advertising is a potentially powerful tool in the effort to address the many Public health and other social challenges facing developing countries like Ethiopia. Public service announcements (PSA) are used widely to educate the public on issues of public importance like health, education, civics or other issues. Public service advertising campaigns are widespread around the world. Such advertising is generally produced and distributed on a cooperative basis by governmental agencies or nonprofit organizations acting in concert with private advertising and mass media companies. In most cases, the non-profit provides the programming that is to be advertised, while the participating advertising agency and media companies provide creative services, media planning and dissemination services on a monobasic.

2.6.3. PSAs as health behavior change tool: Key Considerations

PSAs are generally developed for one of three reasons: to prevent a behavior from starting; to stop a behavior (cessation); or to encourage adoption of a new behavior (Atkins, 2001). According to Atkins, as the messages are short and accompanied by advice of action to be taken, they are successful in shifting attitudes and motivating behavior change. Many health programs embark on PSA campaign in an effort to reach millions and influence health behavior. In a typical PSA campaign, organizations develop a strategic plan to address the entire scope of campaign development, including research, creative strategy, production, distribution and evaluation. PSAs should be made the same way a commercial product is made except the job is much harder because instead of trying to sell more products or increase market share, we are normally trying to affect deeply seated public attitudes and behavior (PSA Research Center, 2007).

Georgiadis (2013) says that in order to generate awareness, messages must inform publics about the health topic. Instruction messages should tell public what to do and how to do it, and persuasion messages should give reasons why public should adopt this particular health behavior. The effectiveness of PSAs can be markedly improved by adding credibility, communicating in an engaging style to gain the attention of publics, creating a simple understandable message, and making the message personally involving and relevant (Atkins, 2011).

In today's rapidly changing media environment, many organizations are experimenting with a variety of techniques for reaching the public—incorporating messages into TV shows, creating issue oriented video games, using text messaging, or soliciting user-generated content on Web sites. But given the amount of time most people spend watching TV, Televised PSAs are still a core component of most major public education efforts, just as the 30-second TV spot continues to dominate the advertising world, despite all the new media options available to marketers (Yogita et.al, 2012).

2.6.4. Impact of PSAs in Behavior Change Communications

Despite the cost effectiveness and message power of public service announcements, very little is done in terms of both production as well as research on various aspects of PSAs in Ethiopia. But studies in various health campaigns featuring public service announcements, as integral part of the initiative in other parts of the world, have shown that PSAs indeed can be used as important tool for creating awareness in various social causes. In some of the causes where media houses donate air time, the intervention is even more cost effective. Analyzing the content and effectiveness of the PSAs also yielded valuable insight in shaping the direction of campaigns as well as policy directions.

A public service announcements content analysis in the United States on the *Let's move* campaign revealed that if properly designed and communicated, public service announcements can motivate the desired health seeking behavior. The Let's Move campaign was initiated by US first lady Michelle Obama as a government initiative to reduce childhood obesity that exposed children to a wide range of diseases rendering them unproductive in school and later in life. The author of the study Georgiadis (2013) found that as the health messages were strategically communicated with a series of separate but cohesive PSA ads that displayed consistency in messages and themes. The Public Service Announcements in the *Let's Move* Campaign used techniques drawn from the social cognitive theory and health belief model. Messages made use of the theories and focused on increasing self efficacy by showing rather than telling target audiences how to make the requested action, influencing attitudes towards childhood obesity, and ultimately motivating behavior change.

Similar health campaigns on cessation of smoking, promotion of healthy eating, awareness on heart disease and diabetes also used public service announcements effectively to motivate behavior change in the United States and other parts of the world.

Research on the impact of PSAs and colon cancer conducted by the American Cancer Society, the Advertising Research Foundation and the Ad Council, also indicated that PSAs can induce significant behavior changes in public behavior. According to the evaluation report on the campaign, the number of viewers who saw the TV PSAs and indicated they spoke to their

doctors about colon cancer increased by 43 percent (71.4% of men). According to the research, an estimated 2.7 million more men were influenced to consult their physicians as a result of the campaign (PSA Research Center, 2007)

According to an academic Meta analysis by Snyder et al. (2000), of 48 media health campaigns (a form of PSA), behavior change typically takes place in one out of every 10 people in the target audience. The research defined three campaign categories as:

1. Adoption of a healthy practice (e.g., condom use, nutritious food consumption)
2. Cessation of an existing unhealthy practice (e.g., smoking, drunk driving)
3. Preventing initiation of an unhealthy practice (e.g., tobacco and drug use by youth)

This sub-analysis found that campaigns seeking adoption of a new behavior were twice as effective as campaigns positioning for the cessation of current habits (12 percent vs. 5 percent of population impacted). Meaning, PSAs are a lot better at getting people to add something new to their routine than taking something out. Campaigns promoting health services landed in the middle with a 7 percent success rate. As Ethiopia is working to motivate the public to seek care services during childbirth, research results like this one could provide basis for PSA campaigns.

2.7. Health Communication Models and Theories Underpinning the study

2.7.1. Introduction

The Population Reference Bureau (2005) in the US suggests that human behavior is the central factor in most leading causes of *mortality* and *morbidity*. They advocate that behavior change strategies should be at the forefront of any attempts to reduce mortality and morbidity. Being able to predict behavior makes it easier to plan an intervention. Therefore the first stage of any communication *campaign* is to analyze the behavioral aspects of the health problem (Atkins 2001). Corcoran (2007) cites Tones and Tilford (1994: 83) who noted...

“... If we can understand factors that influence behavior ‘we will be in a better position to devise strategies and formulate methods that will achieve our health education goals – no matter what our philosophy or what model we choose to follow’”. pp 15

2.7.2. Theories in Health Communication

Theory enables the practitioner to predict the outcomes of interventions and the relationships between internal and external variables. Underpinning communication in health promotion should be an understanding of how and why people change their behaviors and at what point of intervention it is best to target a message. This allows identification of the actions needed to change that behavior and highlights the pathways of influence that hinder (or promote) that behavior (Concoran 2007). Theories do not specifically identify an intervention to follow. Instead they generate a series of ideas for a theory-led intervention to adopt. There are several theoretical models that identify influences in the behavioral change process. These are then selected according to what the practitioner wishes to achieve. The purpose of theory is to enable the successful exchange of information between the health promoter and the target audience (Corcoran 2007)

The success of this process is often down to the influence of a number of variables. These include, for example, the relationship between the communicator and audience (as described earlier), the message itself, how the message is sent and the audiences’ beliefs, values, attitudes. Theory can therefore help predict and explain behaviors, assist in the targeting of information and predict the effect that information will have. It also allows practitioners to predict why the audience may not undertake a behavior no matter how much assistance or encouragement is available.

2.7.3. Health Communication Models

Models are derived from a simplified version of theory and can be used to guide the development of health promotion programmes. Theories and models are ‘useful in planning, implementing

and evaluating interventions (Trifiletti et al. 2005:299). Models in health promotion usually seek to include key elements important to behavior and decision-making processes. In health promotion and health education, models are often borrowed from areas of social psychology or health communication and applied to health contexts. Theories are valued in the field of health promotion because of their use in explaining influences on health alongside the ability to suggest ways where individual change could be achieved (Parker et al. 2004). Effective communication strategies should be grounded in a sound theory. They can be used to design and plan health promotion strategies and to generate decisions and solutions, ensuring that all variables are taken into consideration (Tones and Green 2004).

2.7.4. Social Cognitive Theory

The social cognitive theory is a learning theory developed by psychologist Albert Bandura (Bandura 2001). Bandura's Social Cognitive Theory posits a dynamic interrelationship between an individual's personality, environment and behavior. This relationship is known as reciprocal determinism and says that people are both products and producers of their environment. Bandura also argues that people model behaviors within the context of social interactions, experiences, and outside media influences. Depending on whether people are rewarded or punished for their behavior and the outcome of the behavior, that behavior may be modeled. Further, media provide models for a vast array of people in much different environmental settings.

Social cognitive theory is applied today in many different areas including Mass media, public health, education, and marketing. An example of this is the use of celebrities to endorse and introduce any number of products to certain demographics.

One of the strong points outlined in the theory (Bandura 2001) is that it emphasizes the dynamic composition of individuals and does not simply claim that people are either completely self-contained rational subjects, completely determined by personal factors or simple products of their conditioning or environment. Rather, Social Cognitive Theory paves a reasonable common ground, focusing instead on the interrelationship of these factors. Because Social Cognitive Theory emphasizes the role that observation and environments have in learned behavior, it easily allows for cross-cultural analysis. It makes no judgments about morality or values but instead

seeks to understand how certain moral codes, behaviors and values are learned and provide a framework for understanding how certain kinds of behavior may be more acceptable in certain situations or cultures than others.

Social Cognitive Theory has implications for fields spanning across the social sciences and mental health services. It can be applied in academic fields such as anthropology, sociology and psychology. In addition, the theory provides key insights for those working in fields such as clinical psychology, social work or occupational therapy (Bandura 2001)

But the Theory is not without some limitations. According to Middendorp (2013), the social cognitive theory fails to connect its concepts under one unified principle. Bandura tries to cover broad aspects of human behavior, which causes a disorganization of concepts. The observational learning concept states that humans learn vicariously through observation with or without direct reinforcement. Humans may or may not change their behavior based on what has been observationally learned. The concepts Bandura uses are used to explain elements of social behavior amongst human beings. Not all of the concepts are clearly connected with one another.

Bandura's conceptual use of human agency indicates self-control of mind, with no consideration for the subconscious. Bandura's belief is that thoughts can be controlled through the use of self-efficacy. If the thoughts are controllable, humans must be consciously aware of all thought processes. Under the theory, the unconscious mind doesn't exist, because it has no bearing on human desire or behavior.

Middendorp (2013) also criticizes Bandura saying he fails to connect biological processes and hormonal responses to explain human behavior. According to the theory, differences relating to biology and hormonal responses have no effect on human agency or self-efficacy. Experts argue that mental disorders such as schizophrenia are caused by chemical imbalances in the brain. Hallucinations, paranoia and other psychological reactions to chemical imbalance are not considered to be controlled by the person afflicted with the disorder. The theory does not have an explanation for mental disorders or an indication that anybody lacks the ability to control thoughts and behaviors.

2.7.5. The Health Belief Model

The Health Belief Model (HBM) is a psychological model that attempts to explain and predict health behaviors. This is done by focusing on the attitudes and beliefs of individuals. The HBM was first developed in the 1950s by social psychologists Hochbaum, Rosenstock and Kegels working in the U.S. Public Health Services. The model was developed in response to the failure of a free tuberculosis (TB) health screening program in the United States. Since then, the HBM has been adapted to explore a variety of long- and short-term health behaviors, including sexual risk behaviors and the transmission of HIV/AIDS (Conner and Norman, 1996)

The model proposes that a person's behavior can be predicted based on how vulnerable the individual considers themselves to be. 'Vulnerability' is expressed in the HBM through risk (perceived susceptibility) and the seriousness of consequences (severity). These two vulnerability variables need to be considered before a decision can take place. This means a person has to weigh up the costs/benefits or pros/cons of performing a behavior. According to Champion and Skinner (2008), people must first recognize they are susceptible to the condition or disease if they are to think about changing that behavior or adopt a new one. Next, the individuals must believe this is a serious condition, and they can reduce their risk if they take the advised action. The individuals also need to receive cues to action, such as how-to information, so they can initiate behavior change. Lastly, they must have self-efficacy in order to take action (Champion & Skinner, 2008). Self-efficacy can be achieved through verbal reinforcement and guidance in the recommended action (Champion and Skinner 2008).

The Health Belief Model has been applied to a broad range of health behaviors and subject populations. Three broad areas can be identified (Conner & Norman, 1996): 1) Preventive health behaviors, which include health-promoting (e.g. diet, exercise) and health-risk (e.g. smoking) behaviors as well as vaccination and contraceptive practices. 2) Sick role behaviors, which refer to compliance with recommended medical regimens, usually following professional diagnosis of illness. 3) Clinic use, which includes physician visits for a variety of reasons. Main behaviors targeted include topics of sexually transmitted infections, dietary, and vaccination behavior and care seeking. Interventions using this module usually aim to influence the 'perceived threat of disease' variable and hence change the susceptibility/severity balance. The main way of doing

this tends to be directing information that has an emotional appeal or contains a strong fear or emotional response (Corcoran 2007: 1: 17).

Some scholars criticize the Health Belief Model stating that health behavior is not always rational and rationalizing the behavior may not necessarily bring up the cause and effect relationship (Janz, Nancy K.; Marshall H. Becker (1984). Others also note that the model emphasizes on the individual ignoring social and economic factors affecting the behavior and the difficulties to bring about the intended change (Croyle RT 2005). Research assessing the contribution of cues to action in predicting health-related behaviors is limited (Janz, Nancy K.; Marshall H. Becker (1984), Rosenstock, Irwin (1974). Cues to action are often difficult to assess, limiting research in this area. For instance, individuals may not accurately report cues that prompted behavior change (Janz, Nancy K.; Marshall H. Becker 1984)

As described earlier, with the limitations in mind, many health program interventions used the two approaches (Social Learning and Health Belief Models) to help to direct the overall designing of health messages to create awareness about health problems, the condition, what to do about it and how to go about it, ultimately motivating the desired behavior (Snyder, 2007).

2.8. Communicating the Benefits of Skilled Delivery

Any process of designing a scientific based communication program or initiative takes a number of communication theories and frameworks from the related discipline into context. Promoting the health facility delivery practice of women and her family members in Ethiopia would also have to consider such theories in communication and health sciences.

Skilled attendants during labor, delivery, and in the early postpartum period, can prevent up to 75% or more of maternal death. However, in many developing countries including Ethiopia, very few mothers make at least one antenatal visit and even less receive delivery care from skilled professionals (Solomon et.al 2013). Ethiopia is a country where people live in a community setting affecting and affected by their environment. Cultural and Traditional beliefs towards child birth are varied and deep rooted. Most women and their families are with the opinion that visiting health facilities for child birth was not necessary. They believe their mothers had no

problem delivering at home and they would do the same, as reflected in the 2011 Ethiopian Demographic and Health Survey (EDHS). The Survey showed that more than six women in every ten (61 percent) stated that a health facility delivery was not necessary, and three in every ten (30 percent) stated that it was not customary. Home births are accompanied by various traditional ceremonies and beliefs. A 2013 study (Solomon et.al) indicated the crucial role of proper health care provider-client communication and providing a more client centered and culturally sensitive care if utilization of existing health facilities is to be maximized.

Health communication experts recommend approaching the social cognitive theory and health belief models for situations where we are trying to motivate a change in health behavior that is associated with cultural and environmental factors and can be impacted through risk susceptibility reminders and model influencers (Corcoran 2007). A number of media based interventions to bring about a change in attitude and service seeking behavior have used the Social Cognitive Theory and Health Belief Model to craft the messages and analyze impacts (Georgiadis 2013). The health belief model and its precursor social cognitive theories are developed to explain and predict health-related behaviors, particularly in regard to the uptake of health services (Janz, Nancy K.; Marshall H. Becker (1984). The social cognitive theory and the health belief models also underpin the current study on the role of Public Service Announcements as behavior change tools to reduce Maternal Mortality in Ethiopia.

CHAPTER THREE

3. Methodology

3.1. Method of the Study

The study explored the contents of the health messages in the Public Service Announcements (PSA), produced by the Ministry of Health to encourage skilled child delivery at health facilities. Skilled attendance at birth is the most important intervention in reducing maternal mortality and one of the MDG indicators to track national effort towards safe motherhood (FMOH, 2013).

This PSA content analysis project is exploratory in nature employing qualitative content analysis. Hsieh and Shannon (2005) defined qualitative content analysis as “a research method for the subjectivist interpretation of text and data through the systematic classification process of coding and indentifying themes or patterns” (p. 12). Mayring (2000) as cited by Pan Americana Institute (PAI, 2012) defines qualitative content analysis as “an approach of empirical, methodological controlled analysis of texts within their context of communication (p.23).

According to PAI (2012), researchers use qualitative content analysis to illustrate the range of meanings of phenomena, describe the characteristics of message content, and identify themes or categories within a body of text. Qualitative content analysis pays attention to the unique themes that illustrate the range of the meanings of phenomena, rather than the statistical significance of the occurrence of particular concepts or texts (Berg, 2001; Bryman, 2008; Krippendorf, 2004; Zhang & Wildenmuth, 2009).

In this project of Content Analysis of Public Service announcements on safe motherhood in Ethiopia, the messages had been analyzed in context of health communication models and Health Public service announcement designing strategies. According to Holsti (1969), one of the applications of content analysis is describing and making inferences about the characteristics of communications by comparing communication content to standards. Among the fifteen functions of content analysis outlined by Holsti, studying the “What” of communication content or message is one of the important attributes of the methodology. Krippendorf (1980, 2004) also has a similar note on content analysis stressing that it is a research that helps to make reliable and

valid inferences from data to their context. In this research project, the key messages transmitted in the PSAs along with the mechanicalistic factors used in packaging the messages were analyzed on categories developed by the researcher. The categorization of messages and coding was based on effective PSA designing strategies modeled by Atkins (2001) relying on social cognitive theory and the health belief model of health communication.

3.2. Sources of Data

A number of development partner organizations are working on various aspects of maternal mortality reduction efforts led by the Federal Ministry of Health of Ethiopia. One of the areas that these organizations support the ministry of health is the area of behavior change communication. Since the adoption of health sector development programs, earlier separate efforts of these organizations have come to a single strategic leadership of the Ministry of Health. Accordingly, the Federal Ministry of Health plays the central coordinating role of all programs and release of official data and communication at the Federal level (FMOH, 2013). Therefore, the Public relations and Communications directorate of the Federal Ministry of Health was selected as the main source of data in this study. Copies of the Public Service announcement recordings and interviews with the communication team at the ministry were obtained after an official support letter was written from the faculty of the university.

3.3. Data Sampling

The source of the data used for the analysis was the PSAs aired over a period of a year starting from September 2012 – September 2013. Accordingly, Six Public Service announcements focusing on safe motherhood, specifically on skilled health facility delivery were used in the study. One reason that the source of data was limited to one year was because this expressed the last full year productions of Public Service Announcements and can be expected to demonstrate gains from the experiences of former years. Moreover, this most recent year of PSAs was chosen because the further back you go, the more you face poor data documentation (Ephrem, 2007). Despite the fact that there are electronic archive systems readily available, it was difficult to locate the PSAs done two years ago at the Federal Ministry of Health. Deacon et al (1999:120) as cited by Ephrem (2007) note that when sampling retrospectively, the research is inevitably affected by the availability and comprehensiveness of archival sources. Thus, as a solution for

this potential danger of availability of material in the archives, the most recent full year copies, where all PSAs could be obtained, was taken as the sample period. All PSAs produced and aired over this time frame (Six TV PSAs) were used for the analysis.

The researcher at this point wants to note that at the proposal level of this study, a plan was set out to analyze both the Radio and TV PSAs in the study. However, the researcher was later on informed that the TV spots are used for radio with minor editing. Both the TV and Radio Spots are basically the same. Therefore, after consultation with the research advisor, the researcher decided to work on the TV PSAs.

Interviews with two of the communication team members responsible for the production and dissemination of the PSAs at the ministry of health was also done. This was to help the researcher understand the key theoretical and production considerations they make in producing the public service announcements and assist with the analysis.

3.3. Data Collection Methods/Instruments

The researcher used qualitative content analysis and semi structured interview as instruments. Content Analysis is described as the scientific study of content of communication. It is the study of the content with reference to the meanings, contexts and intentions contained in messages (Berelson 1952). Bernard Berelson's work, *Content analysis in Communication Research*, heralded recognition for the technique as a versatile tool for social science and media researchers. According to Berelson (1952), content analysis can be applied to examine any piece of writing or occurrence of recorded communication. Other researchers also added their contribution to Berelson, noting that content analysis is used to determine the presence of certain themes or messages in interviews, advertising, theater, or really any occurrence of communicative language (De Sola pool, 1959, Carly 1990). Content analysis can take the form of qualitative or quantitative analysis.

In choosing qualitative content analysis for this study, the researcher considered insights from earlier literatures. As Berg (2001), explains qualitative content analysis allows a scholar to

explore the ideological mind set, themes, topics and symbols revealed in an artifact such as advertising. Furthermore, one of the many possibilities of content analysis adapted from Berelson, and employed in studies, is using content analysis to reveal differences in communication content, compared to set standards as one of the uses of content analysis. The conceptual analysis of content also helps to establish the existence and frequency of concepts in a text (Carly 1990).

As the objective of the research was to identify the existence and type of key awareness messages in various themes of safe child birth and the construction of the messages, compared to principles identified in Social cognitive theory and Health belief model as well as PSA designing strategies, modeled by Atkins (2001), qualitative content analysis was chosen as the method of choice. Consequently, the soft copy of the PSAs for the analysis was obtained from the Public Relations and Communications Directorate at the Ministry Of Health of Ethiopia.

In designing this qualitative methodology, the researcher adopted a two stage design involving qualitative content analysis and individual in-depth interview. Such an approach, according to Strelitz (cited by Ephrem 2007), allows “inferences or leads” to be drawn “from one data source to be corroborated or followed by another” (2005: 121). (Strelitz 2005: 113). Also, as Minichiello et al (1995) states, in-depth interviews are an effective qualitative method for getting people to talk about their opinions and experiences.

Taking these notes, the researcher incorporated interview as additional data collection instrument to corroborate what is obtained in the content analysis and get a better insight for the discussion of findings. As such, the interview helped to identify whether the communication officers understood theoretical and practical background of health communication theories and designs used in the PSA. The interview also aimed at understanding the considerations they take in the process of designing and production of the messages. Since some of their considerations to design the messages depended mainly on observations of their visits to women in the local community, their first hand insights on cultural beliefs and attitudes of women on skilled delivery helped in analyzing the findings of the content analysis. The researcher used semi structured interview questionnaire (Appendix 2) to get the information from two communication

officers coordinating the production of the PSAs. The interview was held at FMOH office and tape recorded. Information gathered from the interviewees was used for thematic analysis and discussion of the findings.

3.4. Category Construction and Coding

Analyzing data starts with category construction, including definition and classification of items in the PSAs (Tonkiss, cited in Ephrem, 2007). The PSAs were categorized and defined accordingly to show the major themes of the messages and the theoretical base used in the PSA designs. Coding lists were prepared to define and categorize the contents of the PSAs. Category construction is a special and appropriate arrangement for consideration with content analysis. It has the advantage of creating a workable system and smoothing out the analysis. However, to gain this advantage, according to Stempel III (1989:128, 129), the system of categorization must be pertinent to the objectives of the research. It must also be functional and manageable besides answering the relevant research questions (ibid 1989:128, 129). Each content category was therefore tied to specific research questions. According to Stempel III (1989:127, cited in Ephrem 2007), category systems that have already been designed by other researchers may help as a starting point to construct different categories. The researcher also used key themes from Atkins (2001) and Georgiadis (2013) in constructing categories for the present research, grounded in the social cognitive theory and the Health Belief Model.

Following is the category of items that have been analyzed in the PSAs.

1. The Messages of Awareness

- Does the PSA define the Problem of dangers of home births and pregnancy related risks and associated barriers to institutional delivery?

2. Messages of Instruction

- Is there a defined action to be taken (how, when and where)
- Does the PSA clarify the positive effects to be expected
- Is there provision of encouragement to enhance self efficacy
- Are there instructions and options of for those seeking more information?

3. Content

- Is there target audience specified (Pregnant Women or family members, health professionals?)
- Is the PSA recommendation or message applicable to real-life situation and needs
- Is the message simple and can it be summarized in a sentence

4. Mechanical and stylistic factors

- Use of Music, Use of Humor, creative touch and so on...
- Is there a theme line known by the public and included in the PSA like the Motto *No Woman Should Die While Giving Life*

5. Who is the Messenger?

- Celebrity?
- Ordinary women?
- Religious leader?
- Health professional?

3.5. Data Processing and Presentations

Each PSA was analyzed with the same coding sheet to keep findings consistent. The coding sheet consists of five categories, as described above in 3.4. PSAs were viewed five times by the researcher to identify any element for each category. There are five Categories and each viewing only focused on one particular category as used in Georgiadis analysis (2013). The researcher recorded the result of the observation. The findings were then discussed. Data that was obtained through the interviews was analyzed qualitatively or thematically and incorporated into the discussion. By coding PSAs for the existence of the above factors and getting insights from the interviews, the researcher was able to identify what should be communicated in the PSAs and what isn't there. This helped the researcher to arrive at certain conclusions and forward recommendation for better communication of health messages in Public service announcements to help tackle maternal mortality in Ethiopia.

CHAPTER FOUR

4. Presentation and Analysis of Findings

4.1. Introduction

The purpose of this study was to explore the role of public service announcements as behavior change tool in maternal mortality reduction efforts in Ethiopia. The study aimed to identify the key awareness messages in the PSAs and sought to see if they were constructed in line with health communication theories and standard PSA design strategies. Content Analysis was used as the main methodology for this study. Interview with the PSA production team was also used to supplement the content analysis.

This chapter covers the presentation, discussion and analysis of the data obtained qualitatively through content analysis and interviewing in line with the objectives and questions of the research raised in earlier chapters. Important PSA design frameworks are referenced, along with insights from the interviews in discussing the research findings. To be successful, a PSA must first grab the attention of the intended audience. Then, the key message must be retained in the minds of the audience. To do this, it must use an appropriate type of appeal/incentive; use an appropriate messenger; be credible; be understood and be considered relevant by the intended audience. Mechanical construction and creative execution of the message are also important factors in developing an engaging PSA (Atkins 2001). These factors are taken into account when analyzing the PSAs. As described in the methodology section of the paper, the PSAs were viewed by the researcher and comments noted in five thematic areas (The Awareness Message in the PSAs, The Instructions and Cues to Action, Content Construction, Mechanical and Stylistic Factors of the PSAs and The Messenger).

4.2 Story lines of the PSAs

The study analyzed six (6) TV Public Service Announcements aired over the period of September 2012 – September 2013. The story lines depicted in the PSAs are the results of the prior assessments conducted by the communication and technical team of the Federal Ministry of Health and its partners on barriers to skilled delivery in Ethiopia.

With the intention of providing a clear background on the themes and contents of the PSAs under this analysis, the researcher summarized the story lines of all the six PSAs as follows.

4.2.1. PSA 1: Antenatal Care and Skilled Delivery

A woman is seen sitting comfortably outdoors where her daughter (Hanny) is playing next to her. The Woman narrates her first childbirth experience noting that she was afraid that she may not deliver her baby safely. She goes on to say that every professional at the health facility she went to worked hard to make sure that she delivers the baby safely. That baby is now 7 years old and playing next to the woman. The woman notes that she is seven months pregnant and now attending her check ups (antenatal care). She advises pregnant women to do the same and deliver at a health facility. She emphasizes that she absolutely has no fear of going to the health facility and seeking care as she has full trust on the health professionals. The 60 seconds PSA ends by reminding the audience the theme line of the campaign: *When you deliver at Health Facilities, both the mother and newborns are safe.*

4.2.2. PSA 2: Birth Preparation

In the 59 seconds TV PSA, a Veteran midwife is seen educating pregnant women at the waiting room of a hospital about birth preparation and skilled delivery. She tells the women that they are equally responsible as the health professionals to deliver safely. She also answers questions related to child birth preparation from the women. The midwife highlights the importance of deciding on which facility to give birth at, the transportation, hospital fees and anything that might prove to be important during the delivery. The PSA ends by reminding the audience the theme line: *When you deliver at Health Facilities, both the mother and newborns are safe.*

4.2.3. PSA 3: Ethical Medical Care during Child Birth

A pregnant woman is seen being rushed to the gynecologist's office in the hospital with a company of her husband and the medical staff. A nurse takes over the wheel chair from the husband of the woman and tells him that it is now the responsibility of the medical staff to make sure his wife delivers the baby safely. Once the woman is in delivery room bed, the doctor tells the woman that they are ready to help and they only need her approval, and she says yes. The doctor and the nurse comfort the woman throwing encouragement during the labour. She

delivers the baby safely. Her husband gets in the room with clothes for the baby. After a while, he asks her how she is doing. She tells him that the medical staff did their job wonderfully and she has a safe delivery because she came to the hospital. The PSA ends with the usual theme message: *When you deliver at Health Facilities, both the mother and newborns are safe.*

4.2.4. PSA 4: Signs of Complications during Pregnancy

Pregnant woman, Selam, gets up from her bed as she notices symptoms in her body which her doctor told her not to ignore. She calls out to her sister Beza who was in the next room and asks her to take her to the health center nearby. Selam gets to see her doctor at the health center. The doctor told her that the symptoms she noticed were that of hypertension and lauds her prompt action to seek care. He also advises her that there could be various complications during the pregnancy term and she should come to them if there are any discomforts. He also emphasizes that she should immediately come to the health center when the labour starts. She expresses her agreement by nodding her head and comes back home. The PSA is ended with the show of the theme line: *When you deliver at Health Facilities, both the mother and newborns are safe.*

4.2.5. PSA 5: Attitude towards Health Facility Delivery

In this, 65 seconds, TV PSA, a pregnant woman struggles with labour at the presence of her husband and elder family members in a small rural home where the cows and sheep also spend the night. The woman in labour says she can no longer stand the labour and prays to God for a safe delivery. The elder woman suggests that they take her to the health center while the husband insists that all of them had a healthy home birth in the past and there is really no need for medical care. The other lady warns him that one of their neighbors died of prolonged labour at home and his wife may face the same. "God forbid!", he shouts and agrees to take his wife to the health center. The woman is carried and taken to the health center, where she got medical attention and gave birth to the baby safely. As the family gets ready to leave after the delivery, the nurse tells the husband (Ato Demilew) that it was a wise decision that he brought his wife to the health center and also tells him to bring the baby and the mother for further check up and vaccination as per the schedules. She also advised him to always seek skilled care for his wife in case they decide to have another baby in few years. A verbal instruction follows stating that all pregnant women are susceptible to birth complications and the wisest thing to do is to visit health facility

for a safe birth. Ato Demilew is finally seen emphasizing the theme line of the safe mother hood campaign: *When you deliver at Health Facilities, both the mother and newborns are safe*. The PSA ends by showing the organizations behind the message, the Federal Ministry of Health and Ethiopian Midwives Association.

4.2.6. PSA 6: Ethical Medical Care during Child Birth

The PSA shows an Ambulance entering Ghandi Memorial Hospital rushing a woman in labour where the staffs of the hospital starting from the security guard hurry to help the woman get the care. One of the long serving midwives in Ethiopia is also seen checking the woman and helping with the delivery. Moments later, the woman gives birth to the baby and the midwife congratulates the husband who was waiting anxiously at the corridor. He thanks the midwife for the efforts and hugs family members in a congratulatory gesture. A narration follows that says “Providing excellent care to pregnant women is the responsibility of all health professionals”. It ends with the theme line of the campaign “*When pregnant women get skilled delivery, both the mother and the baby are safe*”.

4.3. Thematic Analysis

4.3.1. The Awareness Message in the PSAs

Depending on the most promising mechanisms of influence, campaigns utilize three basic communication processes by which messages move the target audience toward the desired response: awareness, instruction, and persuasion (Atkins 2001). The relative emphasis on the three types of messages will vary at different points of the campaign and for different target audiences, because the pathways to impact depend on the existing pattern of knowledge and attitudes of the audience. Since prior assessments and discussions among women in communities and the health development army revealed awareness gaps (FMOH Communication officers Interview March 2014), the PSAs were mostly aimed at creating awareness about home birth dangers, emphasizing health facility delivery benefits and encouraging standard ethical care in facilities.

In this study, the PSAs were analyzed for the specific awareness messages embedded in the PSAs. The PSAs theme areas are the three delays identified from the studies, as discussed in the problem statement and literature review section of the paper. These delays are failing to make decision to seek professional care for childbirth, logistical delays including transportation and poor care in health facilities. Delay I has to do with lack of information and adequate knowledge about danger signals during pregnancy and labour as well as cultural and traditional practices restricting women from seeking health care. These delays have caused thousands of deaths across the country. The second delay relates to issues of infrastructure. Long distance between the community and health facilities, road access problems prevent mothers from going to facilities. The third delays frequently mentioned by mothers in communities include inadequate skilled attendants; poorly motivated staff; inadequate equipment and supplies. These problems (delays) were clearly identified by women and their families during the 2011 Ethiopian Demographic and Health Survey when asked why they have not delivered their babies in a health facility.

Looking at the details in the analysis, it was found that awareness messages were communicated on the dangers of home births, delays in seeking professional care, signs of problems during pregnancy and child birth as well as the importance of mother friendly ethical care at the health facilities. Two of the six PSAs focused on ethical medical care required for mothers while the other two emphasize on antenatal care and skilled delivery. One other PSA shows that one of the reasons for maternal mortality is the delay in deciding to go to health facilities to get skilled delivery. The remaining one PSA gives awareness about complications during pregnancy. The importance of providing ethical medical care is also well articulated and shown in the PSAs with the help of veteran gynecologists and midwives as well as celebrities.

Awareness messages may be designed to achieve a variety of objectives including creating recognition of the topic or practice for a large portion of the public and conveying the impression that the health problem is important (Atkins 2001).The PSAs analyzed in this study also portrayed one of the major maternal health problem drivers. What could be gained if standardized skilled care is provided during childbirth is also indicated.

Although there is no rigid way of raising awareness on a health topic, a common awareness approach would be to show the extent of the problem directly with the negative consequence of the behavior being practiced. This would be accompanied by showing what happens if one chooses to ignore the problem and refuses to make the desired behavior change (Atkins 2001). Although such a fear appeal could be a powerful motivator for change, it could also bring in undesired results if not designed well. This is due to defensive responses by the audience members who attempt to control their fear rather than control the danger (Stephenson & Witte, 2000).

Other health campaigns, like Ethiopian's safe motherhood efforts, may use positive incentives to encourage the audience perform the desired action and motivate change. In the analysis, it was found that most of the PSAs encourage seeking skilled delivery by depicting the positive incentives of skilled delivery and optimal care for mothers. The mother and father of the newborn and family members are seen rejoicing the safe delivery (PSA 3, 5, 6). According to the communication officer at the ministry of health interviewed for the study, the preferred tone of the PSAs have been chosen by the safe motherhood taskforce experts taking various socio cultural contexts in perspective (FMOH Communication officers Interview March 2014).

“There is no single effective method. The recommendations from the health communication theories are mostly suited for the developed world contexts. Our society has different cultural and social understanding and ways of perceiving threats and responding. We focused on the incentives of adopting the desired behavior based on that insight.”

Which type of appeal best works for the target audience would be answered best, if prior testing was done before production and transmission of the PSAs, as is the recommendation in PSA designs (Atkins 2007). The researcher learned from the interviews that pretesting of the PSAs has not been done due to various constraints. The term pretesting is used to describe the process of systematically gathering target audience reactions to messages and materials before they are produced in final form. Pretesting can help determine which of several alternative executions of an item may be most effective, or it can identify strengths and weaknesses in single execution.

The findings can be used to revise and improve materials before they are distributed to selected audiences. Pretesting ensures that messages with the greatest potential to favorably influence target audience attitudes and behavior are disseminated; and pretesting in health education takes on more importance when program resources are scarce (NIH, 1983). The pretesting for the PSAs would help in targeting audience and devising appropriate appeals. In addition, the money spent on the PSAs would be better spent in ways that can be scientifically proven to be appropriate and effective.

As described in the health belief model, the viewer of a health awareness message must first recognize he or she is at risk for a condition or disease before thinking about making a behavior change (Champion & Skinner, 2008). In the PSAs, pregnant women and their families should be informed vividly that all pregnancies have risks and home births can cause death to the mothers and their newborns. Only one of the PSAs (PSA 4) communicates to target audiences that they are at-risk for pregnancy related complications and it can lead to death. No statistics were presented in these PSAs to increase perceived susceptibility of target audiences. Therefore, if target audiences did not think they or their newborns were at-risk death, then they are assumed less likely to make the requested action of seeking care during child birth.

There are cultural practices in Ethiopia that follow the birth of a child at home including preparation of traditional food *Genfo*, which is a high carbohydrate food prepared from sorghum and wheat flour and butter. The family of the mother believes the food helps the mother recover easily from the pain and any bodily signs she suffered during the labour and child birth. The new born and the mother are also provided butter as a hair oil to comfort the body. Other practices during child birth at home include a prayer by the local priest or Sheik for the mother and the baby, visits from neighbors with a welcome wish for the baby and a congratulatory wish for the mother. Pregnant women in most parts of Ethiopia are accustomed to such comforting cultural practices and they would not get any of that if they deliver in health facilities. According to FMOH communication officers interviewed, the lack of such a caring environment has been mentioned as one of the primary reason why women do not seek skilled delivery in health facilities. This is how they described the observations.

“When a woman gives birth to a child, she is surrounded by her family members that would help her get psychological support in easing the labour. This however is not the practice in most health centers. Women also noted that health professionals in the facilities have ethics problems and they do not serve them well in this decisive moment of their life and the babies. So they instead prefer to be around the house and deliver at home.”

Based on this insight, some health facilities in Tigray region of Ethiopia piloted a ceremony, where they prepare *Genfo* and perform all the cultural practices for women, right after birth at the health center. This has encouraged women in Tigray to visit health facilities for child birth as they are well taken care of (FMOH ARM Bulletin, 2013). Such an innovative approach could have been shown in the PSAs as women could model the practice in their respective localities. Such an approach is also encouraged by health communicators. Jodi Thesenvitz (2001) notes that, simply asking individuals to act in a specified way may not be effective way of influence. Instead, it is preferable to present message content that links the desired health behavior to valued attributes or consequences that serve as positive incentives. Appeals for complying with a recommendation should build on existing values of the target audience.

Another insight from the interviews is that many communities consider the death of mothers and babies a normal phenomenon that has nothing to do with medical care. Women especially in rural Ethiopia believe that if it is the will of God, the mother and the baby will stay alive and there is nothing the family can do about complications. Although it may not be possible to incorporate all the barriers and solutions in the PSAs, the researcher believes that this is a very important driver of maternal mortality mothers and family members can avoid, if provided the awareness and educated about it in the PSAs. According to the communication officers interviewed for this study, community conversations are being initiated using the health development army and the health extension modalities to address the challenges. Other innovative approaches are also being explored.

4.3.2. The Instructions and Cues to Action

This section of the PSA analysis looked at the actions defined to be taken, clarification on the positive effects to be expected and encouragement to enhance self efficacy. The researcher also

looked into tag lines where the audience is prompted to seek more information about pregnancy, skilled delivery and proper actions to be taken.

Messages in the PSAs demand an action from viewers. The social cognitive theory and health belief model assert that in order for an individual to take the action and make a behavior change, they must have self-efficacy or reinforcement of some sort. Self-efficacy was added to the four components of the health belief model (i.e., perceived susceptibility, seriousness, benefits, and barriers) in 1988. Self-efficacy refers to an individual's perception of his or her competence to successfully perform a behavior (Glanz, Karen; Barbara K. Rimer; K. Viswanath (2008)). The health belief model emphasizes that for individuals to have self-efficacy, they should receive cues to action including specific how-to information and verbal reinforcement (Champion & Skinner, 2008). The reinforcement in the statement "*When pregnant women get skilled delivery, both the mother and the baby are safe*" supports the messages verbally communicated by pregnant women, the health professionals and celebrity models in the PSAs.

In the first PSA analyzed on antenatal care and skilled delivery, there is a clear instruction and encouragement. The expecting woman advises women viewers to seek antenatal care as well as skilled delivery to have a healthy and happy child as she did. But ways of getting more guidance or information have not been clearly indicated. Of course, the government agency behind the PSA has been mentioned (FMOH) at the end of the PSA, if that is to be considered as a source of further information. PSA 2, PSA 3 and PSA 4 clearly show birth preparation instructions, pregnancy complications, antenatal care and skilled delivery respectively. Women are also encouraged by the fact that the medical staff is there to help and make the child birth process a less stressful one. However, as with the other PSAs, no further note is given as to where to get more information for concerns during antenatal care and as the labour approaches.

Perceived benefits remain to be one of the factors that influence health-related behaviors. It is also one of the five key constructs of the health belief model. (Glanz, Karen; Barbara K. Rimer; K. Viswanath (2008)). Perceived benefits refer to an individual's assessment of the value or efficacy of engaging in a health-promoting behavior to decrease risk of disease (Janz, Nancy K.; Marshall H. Becker (1984)). If an individual believes that a particular action will reduce susceptibility to a health problem or decrease its seriousness, then he or she is likely to engage in

that behavior regardless of objective facts regarding the effectiveness of the action. In the analysis, the positive effect of taking the requested action is better represented in PSA 6 where the mother and the family are seen gathered around the baby, smiling after the woman got skilled delivery showing the positive impacts of their decision seeking medical care. The cues to action are also seen in this PSA, where an ambulance rushes and all staff members are seen caring for the pregnant woman showing that if the woman decided to get skilled delivery, everybody is there to help. How and where to get the care is also depicted by showing the Maternity Hospital, Ghandi Memorial Hospital.

Another construct of the health belief model the researcher looked into is the perceived barriers to take action and effect change in behavior as health-related behaviors are also a function of perceived barriers to taking action (Glanz, Karen; Barbara K. Rimer; K. Viswanath (2008). Perceived barriers refer to an individual's assessment of the obstacles to behavior change. Even if an individual perceives a health condition as threatening and believes that a particular action will effectively reduce the threat, barriers may prevent engagement in the health-promoting behavior (Janz, Nancy K.; Marshall H. Becker (1984). The PSA production team took note of this construct to address one of the barriers to institutional delivery; poor care in health facilities to expecting mothers. One of the barriers identified in Ethiopia's 2011 Demographic survey to get skilled child birth is the poor care mothers receive in health facilities and the ethical problem of health professionals. The fact that the gynecologists, nurses, midwives and all health facility staff were seen providing optimal care for mothers helps to ease off the perceived barrier to seek professional care, although there are practical measures that need to be taken to tackle the barrier.

Most of the PSAs analyzed show rather than just tell viewers what action to take to prevent the death of the mother and the baby. The social learning theory, which is drawn from the social cognitive theory, states that individuals learn from observing the actions of others (Bandura 2001). The Safe Motherhood PSAs use this theory to motivate behavior change by showing pregnant women and close family members taking action towards the maternal mortality reduction message (visiting health facility). Such actions on recommended advice, furthers the viewers' motivation to make the requested behavior change (Georgiadis 2013).

4.3.4. Content Construction

In the content construction section of the analysis, the researcher looked at the specification of the target audience, applicability of the messages to real life situations and needs as well as simplicity of the message, as indicated in the health belief model of behavior change (Champion & Skinner, 2008).

All of the PSAs have one or more target audience defined. Majority of them take pregnant women as primary target audience (PSA 1, 2, 4, 6), while the others target both pregnant women and husbands (PSA 3 and PSA5). Close family members are also urged to help the decision of seeking care in one of the PSAs. Health professionals and health facility staff are also targeted in two of the PSAs in a bid to urge them give ethical and satisfactory care for women during the time of antenatal care and delivery.

The advices and messages depicted in the PSAs are mostly applicable in real life. Pregnant women are urged for a scheduled check in with professionals during their pregnancy and also give birth in health facilities, which is applicable for most women. Professionals are also depicted showing ethical care and service to ease off doubts by some women. Applicability of the message on ethical care is up for debate. As much as there are dedicated staff members of health facilities, there are others less friendly and cooperative during the times of labor and childbirth. Some of the research results described in the literature review section of this paper also showed that one of the reasons why women prefer home birth is because the care they get in health facilities are not satisfactory. Other barriers like transportation, the availability of standard care in facilities are still problems cited by mothers (FMOH 2013). These factors may affect the applicability of the message or advice to the fullest.

In addition to the grand theme of skilled delivery in health facilities, other messages that are equally important for the health of the pregnant women and their babies are also articulated well.

Antenatal Care and Skilled Delivery is critical to you and your baby (PSA 1)

Make all the Preparation before your due date (PSA2)

Health Professionals provide ethical care for pregnant women; just bring them to us (PSA 3)

Make note of signs of Complications during Pregnancy and seek care (PSA 4)

Decide early to get skilled care to have a safe delivery (PSA 5)

Ethical Medical Care during Child Birth saves lives (PSA 6)

4.3.5. Mechanical and Stylistic Factors of the PSAs

Engaging styles and ideas help attract attention, by using stylistic features that are superficially attractive and entertaining (or arresting), and content that is interesting, mentally stimulating, or emotionally arousing (Atkins 2001). Key points considered while analyzing the PSAs for the mechanical and stylistic factors were the use of music, humor or any other creative ways of presenting the information with proper cultural and social context of the target audience. The use of specific theme line of the campaign was also analyzed.

The theme line of the safe mother hood campaigns and efforts of maternal mortality reduction as seen in the PSAs and official documents is “when *pregnant women get skilled delivery in health facility, both the mother and baby are safe*”. This theme line is shown or narrated at the end of all of the PSAs creating a sense of consistency and the possibility for the audience to recall the simple message during pregnancy and at the time of child birth.

One of the important factors that create recall and attachment to the message is the creative part of the package that includes the use of music, humor, artistic touch and similar factors (Georgiadis 2013). In general, most of the PSAs lacked these key factors. Some of the PSAs used background music that meshed well with the narration. However, some of them have no music, creativity or artistic touch other than telling the dry instruction (PSA2). In PSA 3, although the situation created for this PSA is one that is tense and sense of urgency, the acting remains very loose and not easily believable for the audience. No creativity, humor or anything of that sort have been shown in the PSA.

On a positive note, PSA 5 is uniquely produced incorporating major components of good PSA as suggested by Atkins (2001). The rural home setting is typical and most Ethiopians identify to the lifestyle. The rural accent and beliefs towards childbirth are indicated along with the remedial beliefs and practices. The audience can relate to the assumptions in the conversations and actions

that followed. The background setting including the cattles and their sounds helped to create the typical rural home. The theme line is also verbalized by the husband clearly.

4.3.6. The Messenger

As the person delivering the message in the PSAs has influence on the acceptability of the messages and taking the actions required, analysis was done on this factor. As Atkins notes (2001), the source messenger is helpful in attracting attention, personalizing abstract concepts by modeling actions and consequences, bolstering belief formation due to source credibility, and facilitating retention due to memorability. Health professionals, community leaders, religious leaders or ordinary people can be used as messengers based on the specific context. Based on this, the researcher viewed the PSAs to look at who delivers the message.

In the PSAs analyzed, three lists of personalities are seen delivering the message; celebrities, health professionals and ordinary people. The first group consists of popular actors and actresses. In PSA 1, the actress Fitsum Tsegaye (the actress from Dana TV series) is seen conveying the message as a mother of two with believable acting, which gives the PSA an edge of acceptance. Similarly PSA 5 is also dramatized by famous actors from the well known TV series *Sew LeSew* series. In PSA 6, actors from *Sew LeSew* TV series are paired with veteran gynecologists and midwives in delivering the message, which gives it extra celebrity power as well as authentic health advice. The second group of messengers includes well known gynecologists and midwives delivering the message that they care for the health of mothers and babies and provide ethical care (PSA2 and PSA 6). Ordinary rural women are also seen in PSA 5 paired with actress Shewit kebede from *Sew Lesew* about delay in deciding to seek skilled care.

The combination of messengers used in the PSAs is actors/actresses, health professionals and ordinary women helping the message get across easily and authentically. According to Thesenvitz (2001), although health campaigners conventionally favor certain types of messengers, none is necessarily superior to others in all situations. In selecting the appropriate messenger, the crucial factor is which component of influence model needs a boost. As the main objective of the PSAs in this study is reducing maternal mortality by addressing behavioral and attitude barriers, the question would be who would best describe the importance of skilled

delivery, pregnancy complications and satisfactory care for those deciding to seek care. The researcher believes that the messengers selected in the PSAs are people at the center of the problem and they provide both the celebrity appeal as well as the message authenticity value. Based on the social and cultural context of Ethiopia, religious figures and community leaders are heard in their communities and the researcher believes that the use of them in messaging could have improved the PSAs markedly.

4.4. Conclusion

This section of the paper presented the major findings of the analysis and discussed them in light of the theoretical assumptions and PSA designing strategies as well as insights from the interviews with the communication officers responsible for the coordination of production and dissemination. The researcher's reflection on the findings was incorporated when applicable.

In general, the PSAs have presented messages based on prior assessments on barriers to safe motherhood including cultural beliefs, practices and health facility problems. Most of the designs of the PSAs prove to be in line with recommendations from the Social cognitive theory and health belief model as well as effective PSA designing strategies. However, as admitted by the communication team of FMOH, in-depth theoretical foundations have not been laid in some of the PSAs. Reinforcement messages to adopt the behavior recommended, source of information for further inquiry for pregnancy related concerns and creative and artistic appeals have not been dealt with adequately in the PSAs. Pretesting of the PSAs among the target audience could have provided more insight and community wisdom to choose what form of appeal to use and work on the applicability of the actions recommended. The issue of applicability of the message is clearly an issue to be contested as ethics and standard of care remains unsatisfactory for women in childbirth, as noted by women in communities.

CHAPTER FIVE

5. Conclusion and Recommendations

5.1. Conclusion

The purpose of this study was to explore the role of public service announcements as behavior change tool in maternal mortality reduction efforts in Ethiopia. The study aimed to identify the key awareness messages in the PSAs and sought to see if they were constructed in line with health communication theories and standard PSA design strategies. Content Analysis was used as the main methodology for this study. Interview with the PSA production team was also used to supplement the content analysis.

To be successful, a PSA must first grab the attention of the intended audience. Then, the key message must be retained in the minds of the audience. To do this, it must use an appropriate type of appeal/incentive; use an appropriate messenger; be credible; be understood and be considered relevant by the intended audience. Mechanical construction and creative execution of the message are also important factors in developing an engaging PSA . These factors were taken into account when analyzing the PSAs. The PSAs were viewed by the researcher and comments were noted in five thematic areas (The Awareness Message in the PSAs, The Instructions and Cues to Action, Content Construction, Mechanical and Stylistic Factors of the PSAs and The Messenger). The thematic areas were developed from earlier literature based on theoretical background from the health belief model and social cognitive theory.

Accordingly, it was found that awareness messages were communicated on the dangers of home births, delays in seeking professional care, signs of problems during pregnancy and child birth as well as the importance of mother friendly ethical care at the health facilities in the PSAs. In addition to the grand theme of skilled delivery in health facilities, other messages that are equally important for the health of the pregnant women and their babies are also articulated well.

In general, the PSAs have presented messages based on prior assessments on barriers to safe motherhood including cultural beliefs, practices and health facility problems. Most of the designs of the PSAs prove to be in line with recommendations from the Social cognitive theory and health belief model as well as effective PSA designing strategies. However, in-depth theoretical foundations have not been laid in some of the PSAs. Reinforcement messages to adopt the behavior recommended, source of information for further inquiry for pregnancy related concerns and creative and artistic appeals have not been dealt with adequately in the PSAs. Pretesting and post testing have not been done on the PSAs. Pretesting of the PSAs among the target audience could have provided more insight and community wisdom to choose what form of appeal to use and work on the applicability of the actions recommended. The issue of applicability of the message is clearly an issue to be contested as ethics and standard of care remains unsatisfactory for women in childbirth, as noted by women in communities.

5.2. Recommendations

- Most of the PSAs encourage seeking skilled delivery by depicting the positive incentives of skilled delivery and optimal care for mothers. Which type of appeal best works for the target audience would be answered best, if prior testing was done before production and transmission of the PSAs. Future production should take note of this and include pretesting and post testing part of the PSA package.
- Perceived risk is one of the drivers of behavior change. Only one of the PSAs (PSA 4) communicates to target audiences that they are at-risk for pregnancy related complications and it can lead to death. Therefore clear risk communication should be at the center of the messages with mention of statistics to increase perceived susceptibility of target audiences to maternal deaths.
- Death of mothers and their babies are not perceived as preventable threats and simply associated with scientifically unsubstantiated beliefs in many rural communities. Although it may not be possible to incorporate all the barriers and solutions in the PSAs, the researcher believes that this is a very important driver of maternal mortality mothers

and family members can avoid, if provided the awareness and educated about it in the PSAs. Future PSA productions should include such factors.

- Perceived benefits are indicated in many of the PSAs to motivate the behavior change. But ways of getting more guidance or information have not been clearly indicated as to where to get more information for concerns during antenatal care and as the labour approaches. Phone numbers at the Federal level directing inquires to specific health facilities could have been included to encourage care seeking.
- Applicability or believability of the message on ethical care is up for debate. Barriers like transportation, the availability of standard care in facilities are still problems cited by mothers. These factors may affect the applicability of the message or advice to the fullest. These problems should be addressed in due time, if he country wants to see its mothers and babies get care in health facilities comfortably.
- One of the important factors that create recall and attachment to the message is the creative part of the package. In general, most of the PSAs lacked these key factors. More effort should be put in selection of actors who deliver the messages. Writing engaging and creative scripts must also be a concern of the PSA producers.
- Finally, the PSAs covered good amount of ground to create awareness and educate the public. Identified gaps of the PSAs in this study could help other researchers and organizations working in the area as further points of inquiry and action. A broader understanding of the effectiveness of the PSA messages and tactics can also be achieved by employing the use of different methods such as focus groups and surveys to see if the campaign influences attitude change and any further change in behavior for maternal mortality.

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APPENDICES

Appendix I

Interview Questions and Interviewees

1. What are the main drivers of maternal mortality in Ethiopia?
2. What are the key barriers to skilled child delivery that are related to awareness and health behavior?
3. What communication and social mobilization interventions are in play to address the barriers?
4. What are the theoretical and practical considerations you take in producing Public Service Announcements aimed at maternal mortality reduction?
5. Walk us through the process of the PSA production.

Interviewees

1. Shemsedin Bamburo, Senior Communication Officer, Federal Ministry of Health
2. Sorsa Fultamo, Senior Communication Officer, Federal Ministry of Health

Appendix II

Coding Sheet of Themes

Theme of Analysis	Factors to look into
<p>The Messages of Awareness</p>	<p>Does the PSA define the Problem of dangers of home births and pregnancy related risks and associated barriers to institutional delivery?</p>
<p>Messages of Instruction</p>	<ul style="list-style-type: none"> - Is there a defined action to be taken (how, when and where) - Does the PSA clarify the positive effects to be expected - Is there provision of encouragement to enhance self efficacy - Are there instructions and options of for those seeking more information?
<p>Content</p>	<ul style="list-style-type: none"> - It there target audience specified (Pregnant Women or family members, health professionals?) - Is the PSA recommendation or message applicable to real-life situation and needs - Is the message simple and can it be summarized in a sentence
<p>Mechanical and stylistic factors</p>	<ul style="list-style-type: none"> - Use of Music, Use of Humor, creative touch and so on... - Is there a theme line known by the public and included in the PSA like the Motto <i>No Woman Should Die While Giving Life</i>
<p>Who is the Messenger?</p>	<ul style="list-style-type: none"> - Celebrity? - Ordinary women? - Religious leader? - Health professional?