

**Addis Ababa University**  
**School of Graduate Studies**

**Communication Strategies to Influence  
Audience Behavior: The Case of Road Traffic  
Safety Radio Programs in Addis Ababa**

**By**

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**Addis Ababa**

**June 2009**

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Addis Ababa University in partial fulfillment of the  
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## **Abstract**

This study examined the effect of road traffic safety radio programs on road use behavior of audiences and the communication strategies being employed to achieve this purpose. Both quantitative and qualitative approaches were chosen as methods of inquiring for this study. To collect data through a questionnaire for the quantitative survey, a total sample of 180 respondents from two *Kebeles* of *Kirkos* Sub-city in Addis Ababa, the study area, were contacted mainly through multi-stage sampling that combines random sampling and stratified sampling. The qualitative approach employed in-depth interviews with 13 audiences and road safety experts, text analysis of six months' road traffic safety radio programs, and observation of commuters' actual road use behavior focusing on whether pedestrians use zebra markings when they cross streets. The analysis of data collected revealed that the majority of the respondents are aware of the prevalence and preventability of road traffic injuries. As to the medias' role in awareness raising and causing behavior change among the public, there is a significant effort of coverage, but because they do not base their efforts on theoretically and practically recommended BCC theories, and due to the fact that the mediated efforts are not backed up by interpersonal communication, it is revealed that actual road use behavior has not yet met expectations or what it is claimed to have been. The study finally attempted to give recommendations for future road safety intervention programs.

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## Acronyms

AACTCIB: the Addis Ababa City Traffic Control and Inspection Bureau

APA: African Press Agency

AST: The agenda setting theory

BCC: Behavior change communication

CDR: Communication for Development Roundtable

CGRS: Campaign for Global Road Safety

CSC: Communication for Social Change

CT: Cultivation Theory

EE: Entertainment-education

ERSA: The Ethiopian Road Safety Authority

ERTA: the Ethiopian Radio and Television Agency

FAO: Food and Agriculture Organization of the United Nations

FHI: Family Health International

RTS: Road Traffic Safety

TSM: Two–Step Model

UGA: The Uses and Gratifications Approach

UNESCO: the United Nations' Education, Scientific and Cultural Organization

WHO: World Health Organization

# Chapter One

## Introduction

### 1.1 Background of the Study

United Nations' Education, Scientific and Cultural Organization's, report of August 2007 declares that road traffic injuries are major public health problem and leading cause of death, injury and disability around the world (UNESCO, 2007). Another report by Jacobs, G. D. & Aeron-Thomas, A. states the case this way:

The problem of deaths and injury as a result of road accidents is now acknowledged to be a global phenomenon with authorities in virtually all countries of the world concerned about the growth in the number of people killed and seriously injured on their roads. ... by the year 2020 forecasts suggest that as a cause of death, road accidents will move up to sixth place and in terms of years of life lost (YLL) and 'disability adjusted life years' (DALYs) will be in second and third place respectively, (Jacobs & Aeron-Thomas, undated).

According to a report by World Health Organization, the problem is more serious in the developing countries. It says:

Road traffic crashes kill more than 3000 people, including 1000 children and young people, every day. Annually, 1.3 million are killed and at least 50 million are injured. More than 85% of these casualties (and 96% of child deaths) occur in low and middle income countries.... Many of those killed or injured are pedestrians. They are also breadwinners for their families (WHO, 2008).

Every day in Ethiopia, traffic related accidents claim lives of many people, damage others physically and/or destroy material resources. According to a report of the issue released by African Press Agency (APA), Ethiopia is among the countries with the highest traffic accidents in the world. In Addis Ababa, it says, "an average of one person dies daily, while millions worth of US dollar property damage

occurs monthly," (APA, May 3rd, 2008). The problem in Addis Ababa, as the City's Traffic Control and Inspection Bureau, AACTCIB, says, is on the rise. Atop of that, the psychological cost in terms of fright which no one has stated is perhaps incalculable. Hence, it is possible to say that traffic accidents in Ethiopia should be among the nation's top life-threatening concerns such as HIV/AIDS, malaria and poverty.

The media are claimed to be among the means that could be employed to tackle the problem. The media's ability of influencing public opinion and policy on problems like traffic accidents is frequently heard and well acknowledged. However, research shows that the extent and nature of media's influence on behavior is not yet agreed upon. Behavior model advocates for media's contributions if appropriate strategies like social marketing are used, though others question whether such individualistic approach to behavior change really works.

In Ethiopia, the media (broadcast, print, billboards) are used to influence public actions in a way that minimizes traffic accidents. Road traffic safety messages to pedestrians on how to safeguard themselves and to drivers on how to improve skills and sense of responsibility have been transmitted. Awareness creation and education campaigns have been started locally and internationally. Currently, for example, AACTCIB is working with the Ethiopian Radio and Television Agency, ERTA, to create awareness and cause safe road use behavior change among the people to help curb fatal accidents and resource damage. The Ethiopian Road Safety Authority, ERSA, on its part, is working with Radio *Fana*. The Ethiopian Transport Authority has also been working with Radio Ethiopia for the same purpose. Other concerned bodies like FM radios and Forum Cinema have put educative, informative and preventive lessons on air. A report by ERSA says that coverage of road

traffic safety issues by both national and regional radios and television has increased by 30 folds or 3000% over the past five years. (ERSCO, 2007:22).

Moreover, interpersonal communication at schools and other formal and informal occasions are being used so that those exposed to the preventive communication programs might behave in a manner that minimizes the cost of lives and resource damage. These campaigns are still underway; however, results (in terms of desired behavior change) do not seem to meet expectations. This argument could be evidenced by the frequent increase of loss of lives and resources due to inappropriate road use behavior both by drivers and pedestrians.

If lives and material resources are still sacrificed daily despite efforts to curb the problems, investigating nature and impact of the efforts is a necessity: how they are handled, and what challenges and successes have been observed are among the concerns that need rigorous scrutiny. However, no research apparently examines the outcomes of these road safety communication efforts that have been made so far. This research, consequently, addresses the nature and implications of communication strategies that media use in their programs of road traffic safety and their influence to bringing about desired behavioral change.

## **1.2 Statement of the Problem**

Traffic accidents are commonplace in Ethiopia. A number of them are due to the negligence of traffic rules mostly by drivers and to some extent by pedestrians themselves. Though preventive and informative messages are on the air via radio and TV, and in print and other forms like billboards, changes seem insignificant compared to expectations.

Among the means for successful behavioral change by all parties (drivers and pedestrians) are good/applicable theoretical grounds on which the programs are designed and the level of their transmission: among others, how persuasive and how persistent they are. In other words, most important is the extent of meaning the messages create and the influence of these messages on their target audiences' behavior as a result of being designed and transmitted using appropriate strategies.

In line with this, this study attempts to investigate whether road traffic fatalities and damage preventive and informative radio programs are grounded in applicable theories and as a result of which to what extent they influence their audiences in causing them bring about the desired behavior change.

### **1.3 Objective of the study**

The research is conducted on the basis of these general objectives.

#### **1.3.1 General Objectives**

- To examine the extent of effect of road traffic safety programs on their target audiences (drivers and pedestrians).
- To investigate communication strategies (if any) the media are using in their preventive programs.

#### **1.3.2 Research Questions**

The research generally answers the question: what is the effect of road traffic safety radio programs on behaviors of their audiences? More specifically, the following questions are addressed:

- To what extent do radio road traffic safety programs reach their audiences?
- How do audiences make use of the programs? Do they witness any behavior change attributable to the programs?
- What communication strategies do media use in their road traffic safety programs?
- Are the programs inviting to the audience? Do they encourage audiences' involvement?

#### **1.4 Significance of the study**

The research is expected to have several contributions. First it is hoped that it would cause responsible bodies, by understanding the severity of road traffic injuries locally and globally, consider road traffic safety among their priorities.

This study will contribute to better understanding of the road traffic safety communication practices in Ethiopia. It is hoped that it urges those working on road safety communication evaluate the effect of their efforts in bringing about safe road use behavior. Consequently, the researcher expects that it would push them to use appropriate theoretical grounds when designing and disseminating the road traffic safety lessons.

Moreover, the researcher believes that based on the findings and gaps observed with this paper, quite a lot of other researches on road traffic safety in general and road traffic safety communication in particular could be conducted in future.

#### **1.5 Scope and limitations of the study**

The research has been done between the months of January and June of 2009. Obviously, the time taken to investigate such a topic, effect of

a program on behavior of people, is not enough. While there are many RTS radio and television programs on air, the focus was made on only one: the FM 96.3 *Yetraffic Dehininet* radio program. Moreover, the study area is limited to only one Sub-city in Addis Ababa, *Kirkos*. Investigation of several media outlets and wider study area for an extended period of time could have given deeper understanding of the problem, but because of resource and time constraints, this was not possible. Absence of prior research on the area and shortage of reference materials has also been a big challenge.

### **1.6 Organization of the thesis**

The content of this thesis is divided into six chapters. The first chapter presents a general background to the study, statement of the problem, objectives of the study, research questions, significance, scope and limitations of the study. Finally comes this part, organization of the thesis.

Chapter two reviews related literature. It begins with the prevalence of road traffic injuries worldwide and ways of controlling the problem, mainly through awareness raising and enforcement. It then continues discussing theories and strategies that are advocated as efficient means of controlling public health in general and road traffic safety problems in particular. As the interest of the thesis is finding out the role of the media in such an intervention, theories of effects of media are discussed.

The next, Chapter Three, is where methodological aspects, methods, procedures and techniques used in this thesis, are discussed. It also gives justifications for the selection of mixed approach over one of them. The main reasons to using each tool, quantitative survey, in-depth interview, text analysis and observation, are also explained.

Chapter Four is where the collected data are presented and analyzed. It presents analysis of the quantitative and qualitative data independently, which helped the researcher clearly see where they agree and where they disagree. And this led to the need of treating the discussion further but in combination.

Chapter Five, therefore, brings findings from each tool and discusses them further. Here the findings from all the research tools are triangulated. On top of that, discussion on communication approaches and media effects theories treated in Chapter Two are also, where necessary, referred to. It is expected that this has made the discussion and analysis of the findings more thorough and exhaustive.

Finally, Chapter six provides a more general conclusion and recommendations with particular reference to the research questions of the study. It also highlights potential the topic has for future research.

## **Chapter Two**

### **Review of Related Literature**

#### **Introduction**

This chapter mainly focuses on three aspects. First, literature on the prevalence of road traffic injury is assessed, especially in the middle and low income countries. After highlighting the fact that road traffic injury is a preventable safety problem, an argument in favor of considering road traffic hazard as a public health problem and as a result of which benefiting from the long experience of public health intervention and communication programs is discussed. Hence, communication strategies being employed in public health, development and other related areas are discussed, with particular emphasis on their implication to road injury prevention and safety communication. Use of mediated and interpersonal approaches are given due emphasis here. Finally, media effects theories are discussed, beginning from the earlier theories of direct effects of media, but focusing on the limited effects and social-cultural effects theories, those this research has mainly adopted.

#### **2.1 Road traffic injury as a public health concern**

“Road traffic crashes are not just a highway safety problem—they are a public health problem,” (Binder & Runge, 2004:1). The 2007 report of the UN General Assembly on global road safety crisis declares road traffic injuries as a major public health problem and a leading cause of death, injury and disability around the world. It says, each year, because of car crashes, 1.2 millions people die, and other millions more are injured or disabled. It also emphasizes the fact that road crashes are especially affecting the urban areas of developing

countries (UN, Global Road Safety Crisis, 2007:3). Unlike in other continents of the world, road traffic injuries are the highest in Africa. The road traffic injury mortality rate in Africa is 28.3 per 100,000 of the population, a report says, compared with 11.0 per 100,000 in Europe (ScienceDaily, June 27, 2007).

Of course, according to World Health Organization's projections, unless preventive global measures are taken soon, by 2020 road traffic injuries could rank third among causes of death and disability, ahead of such other health problems as malaria, tuberculosis and HIV/AIDS (WHO, 2007). However, according to another report by WHO, current road safety efforts fail to match the severity of the problem (WHO, 2004:6).

## **2.2 Preventive and safety strategies to control the problem**

Considering road traffic injuries in the context of other preventable causes of death and disease has been the premise to most preventive and safety strategies being implemented in addressing road safety problems. Sleet, Dinh-Zarr, & Dellinger, for example, argue that public health practices of protecting and improving of communities' health through education, promotion of healthy lifestyles, research on disease control, health promotion, and injury prevention could be applied in road traffic safety programs (Sleet, Dinh-Zarr, & Dellinger, 2007). Accordingly, they list three core functions of public health practices which are 'in consistent with efforts to reduce motor vehicle injury':

1. monitor and evaluate the health needs of communities
2. promote healthy practices and behaviors in populations; and
3. identify and eliminate environmental hazards to assure that populations remain healthy (Sleet, et al. 2007).

As could be inferred, one of them, promoting healthy practices and behaviors in populations, calls for the role of communication.

Another preventive strategy being applied is the use of severe law enforcement. According to a UN report on Global Road Safety Crisis, the industrialized countries experience has given the lesson that measures to promote behavioral change by road users are decisively influenced by the level of enforcement by public authorities. It says, "involving law enforcement agencies in the development of road safety policies is ... extremely important," (UN 2007:3). WHO (2005) on its part says that the two major driver behaviors to be addressed are speed control and driving under the influence of alcohol, and that both are best approached by a combination of legislation and law enforcement, and social marketing. WHO (2007) further argues for the combination of awareness raising and enforcement as effective strategies that have caused positive change in the developed countries. It says:

The enforcement of speed limits and drink-driving laws to moderate human behavior of road users has proved to be highly effective, especially when combined with well designed public awareness and education campaigns. The introduction of seat belt use laws, again supported by enforcement, has been a crucial step forward in protecting vehicle occupants in a crash (WHO, 2007).

Though research in general has shown a decrease in the number of fatalities and damage due to the use of severe law enforcement, it is still uncertain as to how much this really works; it works only up to a certain point, after which increased enforcement has little or no effect because of saturation level.

### **2.3 Communication for development**

Development communication involves deep-rooted interest in addressing societal issues/problems through different strategies. For Melkote, cited in Waisbord, the ultimate goal of development

communication is to raise the quality of life of populations, including increase income and well-being, eradicate social injustice, promote land reform and freedom of speech, and establish community centers for leisure and entertainment (Melkote, 1991 in Waisboard, 2000:2).

Until recently, modernization theory, more specifically the diffusion of information and innovations, was supposed to have been the best to address underdevelopment in the Third World. In its report of the Ninth United Nations Communication for Development Roundtable (UNCDR) the Food and Agriculture Organization, FAO, discusses modernization as "the process of diffusion and adoption of innovations in a more systematic and planned way," (2005:22). Originally, diffusion of innovation was a process outlined by Rogers (1983) by which an innovation (e.g., new idea, approach, strategy) is communicated through certain channels over time among members of a social system.

Of course, following criticisms on the top-down approach of modernization, a new approach called "participatory model" has come, stressing on the importance of cultural identity of local communities and advocating democratization and participation at all levels – international, national, local and individual (Serveas, 1999). As a result, a comparatively accepted definition of the term "communication for development" is one that puts the participatory model into consideration. As defined by UN General Assembly, communication for development "stresses the need to support two-way communication systems that enable dialogue and that allow communities to speak out, express their aspirations and concerns and participate in the decisions that relate to their development," (UN General Assembly Resolution 51/172: 2005). Hence, messages' contents have to be planned and

produced with the participation of communities. It says, "Participation is made possible in the decision-making regarding the subjects treated in the messages and the selection procedures," (ibid, 2005).

It is not just the people and the message that involve in a successful communication process, as Gandelsonas & Erickson (2002) assert. In addition, the process requires a mode or vehicle for transmitting the message between sender and receiver. Accordingly, social networks, intermediaries and media are such modes or vehicles for channeling information (Gandelsonas & Erickson 2002:117). Regarding the first, social networks, they say:

Social networks are the ideal vehicles for achieving 'knowledge capture, knowledge building and knowledge dissemination' (Earl, 1998:10). Networks can be identified in terms of the special social relationships which generated them. Those relationships may be given by similar gender or age, kinship associations, religious and ethnic origin-based networks, politically-based networks, neighborhood-based groupings, credit groups, employment-based networks, and linkages with NGOs and other organizations (Phillips, 2002). Social networks may influence people's behavior as much as the physical environment, ideology, climate and residence (Gandelsonas & Erickson 2002:117).

While intermediary organizations (like NGOs, CBOs, local universities and other agencies, or groups that share the language and reference systems of urban poor communities) are the key stakeholders bridging the communication gap between researchers and local communities, the media are those that provide the channel by which a message or knowledge is transferred. They also stressed the need to combine different types of media to put a particular message across, to reach a particular audience and/or to improve communications between groups of people since this could guarantee the accessibility and legibility of the message (Gandelsonas & Erickson 2002:118).

As broadly put by Moemeka (1994), however, there are two basic approaches to communicating development messages: interpersonal approach and mass media approach. Interpersonal approach involves a face-to-face exchange between two or more individuals. This approach is best, according to Rogers (2003) as it provides a two-way exchange of information, and persuades an individual to form or to change a strongly held attitude.

On the other hand, Moemeka (1994) argues, even though interpersonal approach is relatively very effective in inducing attitude change and effective development behavior, it is highly limited in reach. It lacks the rapid and wide-area coverage abilities of the mass media. Regarding the mass media Moemeka says:

Because of their unique characteristics of speedy delivery of messages and extensive reach (wide-area coverage), they have been found to be particularly useful in the dissemination of development messages to large and dispersed populations, and, when properly used, in immediate follow-up with opportunities for exchange of ideas on the information/messages provided (Moemeka, 1994:58-59).

However, the mass media too are not free from criticism. Though they are good at awareness creation within the population, they are generally not able to change people's attitudes (Moemeka, 1994:64). It is for this reason that Moemeka recommends the integrated approach, an approach that combines the interpersonal and mass media approaches and links the combination with traditional channels and modes of communication. Moemeka further says:

The Integrated [approach] ... combines all the approaches (and methods) in an appropriate ratio, depending upon the identified felt needs and the sociocultural, economic, and political realities of the social system (Moemeka, 1994:55).

## **2.4 Communication strategies for development**

Three main strategies for Communication for Development that FAO (2005:27) discusses are: behavior change communication, advocacy communication and communication for social change. They are treated below.

### **2.4.1 Behavior change communication**

Behavior change communication (BCC), also known as health communication, social communication, Information, Education and Communication, IEC, or community mobilization, according to Family Health International (FHI), is:

both an art and a science, using the results of epidemiological and social science research to guide the design of creative interventions that call on the talents of artists, writers, actors, producers, counselors and other communicators (FHI, 2009).

Servaes and Malikhao discuss BCC subdividing it into perspectives that explain individual behavior, interpersonal behavior and “the best-known theoretical framework that explains community or societal behavior – the diffusion of innovations approaches” (FAO, 2005:27–28). Waisbord, on his part, asserts behavior change models as the dominant paradigm in the field of development communication:

Different theories and strategies shared the premise that problems of development were basically rooted in lack of knowledge and that ... interventions needed to provide people with information to change behavior (Waisboard, 2000:2).

Three theoretical strategies that have dominantly been used to convey behavior change oriented messages, according to Waisboard (2000), are social marketing, health education and health promotion and entertainment-education. Social marketing, which could also be seen as a theory, however, deserves due emphasis. Because, it is social marketing that is most suggested and employed to “carry forward the

premises of diffusion of innovations and behavior change models,” Waisbord (2000:06). Moreover, the other two, some how, could be subsumed under social marketing theory.

#### **2.4.1.1 Social marketing theory**

Evolving from advertising and marketing disciplines in the United States, social marketing has been shaped, defined and employed in development communication. Waisbord says it has been an influential strategy in the field of development communication since the 1970s (Waisbord, 2000:06). Andreasen defines social marketing as:

the adaptation of commercial marketing technologies to programs designed to influence the voluntary behavior of target audiences to improve their personal welfare and that of the society of which they are part (Andreasen, in Waisbord 2000:07).

Rogers compares social marketing with government forcing when adopting an innovation. However, he says, coercion in forcing behavior change is understandably not popular with certain members of the public. He instead argues for social marketing and says it is a different approach that applies commercial marketing strategies to the diffusion of nonprofit products and services to effect the adoption of innovations that can improve health, raise literacy levels, and extend life expectancy (Rogers, 2003:84). Social marketing has been used targeting a diversity of problems: smoking, alcoholism, seat-belt use, drug abuse, etc. One noted success for social marketing in the developing countries is mainly in interventions such as oral contraceptive pills, condom use, breast-feeding and immunization programs (Rogers, 2003:85; Waisbord, 2000:08).

The goal of social marketing is not just getting ideas or transforming attitude but influencing behavior, promoting socially beneficial practices or products in a target group, (Waisboard, 2000:07). To maximize the effectiveness of interventions, Waisboard stresses use of marketing techniques like market segmentation and formative research. Moreover, in order to “reduce the psychological, social, economic and practical distance between the consumer and the behavior,” (Wallack et al, 1993:21, cited in Waisboard, 2000:07) the idea/product has to be positioned. These and other related concepts are also discussed by Rogers as the “five essentials of a social marketing campaign”. Discussing each, he says:

1. **Audience segmentation** is a communication strategy that consists of identifying certain subaudiences within a total audience, and then conveying a special message to each of these subaudiences. ...
2. **Formative research** is conducted relatively in every communication campaign in order to create more effective messages. Provisional versions of messages may be pretested with small samples of the intended audience in order to obtain feedback that allows the messages to be redesigned for greater effectiveness. Formative research provides an audience orientation to social marketing campaigns. ...
3. The innovation is **positioned** relative to the intended audience’s meanings so as to emphasize certain desired aspects. Sometimes this positioning can be facilitated by the name that is chosen for the innovation ... Often a logo is chosen to symbolize the innovation, particularly if the innovation is too sensitive or embarrassing to talk about. ...
4. **The price** of the innovation is kept very low, as the purpose of social marketing is to change behavior, not to earn profits. The conventional wisdom in social marketing campaigns is to charge a low price for a product or service, even though it could be given away free. Further, distribution of the innovation should be convenient for its adopters. ...
5. **Communication channels** (for instance, paid advertising) over which the campaign planners have control (rather than public service announcements, for example, which are often broadcast at inappropriate times) ... (Rogers, 2003:85-87).

On aspects of consumer orientation, communication channels and necessity of research, Waisboard says the following:

Social marketing needs to be consumer oriented, and knowledgeable of the belief systems and the communication channels used in a community (Maibach 1993). Products need to be marketed according to the preferences and habits of customers. Market research is necessary because it provides development specialists with tools to know consumers better and, therefore, to prevent potential problems and pitfalls in behavior change. This is precisely marketing's main contribution: systematic, research-based information about consumers that is indispensable for the success of interventions. Marketing research techniques are valuable for finding out thoughts and attitudes about a given issue that help prevent possible failures and position a product (Waisboard, 2008:12).

Of course, social marketing itself is not free from criticism. The dominant criticism comes from the top-down nature of the approach that it takes from modernization theory. Though it is strong in raising awareness, results are of short-term impact. Moreover, it depends on media programs. Waisbord suggests five ways to fill gaps of social marketing (and other behavior models):

(1) the need of political will, (2) a "tool-kit" concept of strategies, (3) integration of "top-down" and "bottom-up" approaches, (4) integration of multimedia and interpersonal communication, and (5) integration of personal and environmental approaches (Waisbord, 2008:30-34).

Moreover, Guerrero (2004:10) argues for a three phase strategic plan: strategy development, strategy implementation and strategy assessment. He further stresses the need to have a "well-researched and crafted design in order to address the resistance points and other cultural nuances that the target audience may have prior to exposure to the message," (Guerrero, 2004:11).

### **2.4.1.2 Health Education and Promotion**

Earlier, health promotion viewed individual behavior as the most responsible one for health problems and, consequently, interventions focused on changing personal behavior at the expense of community actions and responsibility (Waisboard, 2000:11). Recent understanding and practice of health promotion, however, stresses the need to integrate individual and social actions. Waisboard discusses:

The goal of health promotion is to facilitate the environmental conditions to support healthy behaviors. Individual knowledge, as conceived in traditional approaches, is insufficient if groups lack basic systems that facilitate the adoption of healthy practices. The mobilization of a diversity of social forces including families and communities is necessary to shape a healthy environment (Waisboard, 2000:11).

Health education, a component of health promotion, refers to learning experiences to facilitate individual adoption of healthy behaviors (Glanz, Lewis & Rimer 1990, cited in Waisboard, 2000:11). Waisboard says a vast range of activities such as peer education, training of health workers, community mobilization, and social marketing are considered examples of health education interventions. Hence, it seems that there is an emphasis on social mobilization. However, Waisboard argues:

The emphasis on social mobilization to improve general conditions does not mean that behavior change models are absent in health promotion but, rather, that they need to be integrated among other strategies. Still, the behavior change model has incorporated the idea that interventions need to be sensitive to the education and the choices of receivers (Valente, Paredes & Poppe 1998), understanding the interests at stake, using social marketing technique to know individuals better, and the role of the community in interventions (Waisboard, 2000:12).

### **2.4.1.3 Entertainment-education**

Entertainment-education (EE) is another communication strategy that is used to disseminate information through the media, combining entertainment and education, based on the behavior change model of the modernization/diffusion theory. Waisboard continues:

It is based on Stanford Professor Albert Bandura's (1977) social learning theory .... Entertainment-education is premised on the idea that individuals learn behavior by observing role models, particularly in the mass media. Imitation and influence are the expected outcomes of interventions (Waisboard, 2000:13).

As defined by Singhal and Rogers 1999, xii cited in Waisboard, EE refers to "the process of purposely designing and implementing a media message to both entertain and educate, in order to increase audience knowledge about an educational issue, create favorable attitudes, and change overt behavior," (Waisboard, 2000:13).

Waisboard says there are studies that conclude entertainment-education strategies as successful in attracting large audiences, triggering interpersonal communication about issues and lessons from interventions, and in engaging and motivating individuals to change behavior and support changes among their peers (Waisboard, 2000:14). On the other hand, he mentions of a different perspective that finds problematic to reach comprehensive conclusions about the effectiveness of EE, but that confirms "entertainment-education projects are effective in stimulating people predisposed to change behavior to engage in a new behavior." He said that they provide the push for those already inclined to act to behave differently (Waisboard, 2000:15).

### 2.4.2 Advocacy Communication

FAO, in its CDR report of 2005, discusses advocacy communication as a communication strategy that is targeted at policy-makers or decision-makers at national and international levels, with an emphasis on seeking the support of decision makers in the hope that if they are properly “enlightened” or “pressured”, they will be more responsive to societal change. Defining advocacy, it says quoting Servaes as:

Advocacy for development is a combination of social actions designed to gain political commitment, policy support, social acceptance and systems support for a particular goal or programme. It involves collecting and structuring information into a persuasive case; communicating the case to decision-makers and other potential supporters, including the public, through various interpersonal and media channels; and stimulating actions by social institutions, stakeholders and policy-makers in support of the goal or programme (Servaes, 1993 in FAO, CDR Report, 2005:28).

FAO further identifies three main interrelated strategies for action that enable advocacy most effective:

- **Advocacy** – generating political commitment for supportive policies and heightening public interest and demand for development issues;
- **Social support** – developing alliances and social support systems that legitimize and encourage development-related actions as a social norm;
- **Empowerment** – Equipping individuals and groups with the knowledge, values and skills that encourage effective action for development (FAO, CDR Report, 2005:28).

### 2.4.3 Communication for social change

BCC and advocacy communication are not found all in all complete, especially in crating sustainable development (FAO CDR REPORT 2005:28). This calls for the need for communication for social change (CSC). CSC relies on participatory approaches in emphasizing the

notion of dialogue as central to development, unlike the traditional interventions which were mainly based on behavioral-change models (Waisboard, 2000:35). Waisboard continues:

In contrast to the sender-receiver, information-based premises of the dominant paradigm, it stresses the importance of horizontal communication, the role of people as agents of change, and the need for negotiating skills and partnership (Waisboard, 2000:35).

Gray-Felder (1999) defines CSC as a process of public and private dialogue through which people define who they are, what they want and how they can get it. This approach attempts, according to Gray-Felder, to rebalance strategic approaches to communication and change by taking the overriding emphasis...

- Away from people as the objects for change ... and on to people and communities as the agents of their own change
- Away from designing, testing and delivering messages...and on to supporting dialogue and debate on the key issues of concern
- Away from the conveying of information from technical experts... and on to sensitively placing that information into the dialogue and debate
- Away from a focus on individual behaviors...and on to social norms, policies, culture and a supportive environment
- Away from persuading people to do something ...and on to negotiating the best way forward in a partnership process
- Away from technical experts in "outside" agencies dominating and guiding the process...and on to the people most affected by the issues of concern playing a central role (Gray-Felder, 1999:8).

Hence, it is not persuading people like the BCC approach that it seeks, but empowering them, "it fosters debate among and between citizens, among and between communities, and between people and government," (Gray-Felder, 1999:14).

## **2.5 Media and their role in development communication**

The media have been telling audiences what should and should not be important socially, culturally, educationally, politically and economically. In fact, most of media impact analyses in the academic literature focus on the negative impact the media have upon their audiences. However, in line with development communication and diffusion of innovation, quite several of these media effects theories have also been advocated. They are used as evidences for and grounds to positive media's effects. The media's influence as forums for public discussion, exchange of information and gradual behavioral change is, in some ways, pervasive. They, at least, as Moyers (1992 in Biagi 1996) says, "provide a culture of community conversation by activating inquiry on serious public issues."

### **2.5.1 Overview on earlier media effects theories**

Analyzing the history of media effects research, Williams (2003) discusses a debate among two different camps: "one emphasizing the effects the media have on their audiences, the other stressing the variety of ways in which different audiences make use of media output" (Williams, 2003:165). Though quite a lot research and debate are underway, the overall trend media effects theory has shown is a change from an all powerful effects to minimal effects.

The earlier theory of media effects, namely called the hypodermic needle effect, says "media messages are received in a uniform way by every member of the audience and that immediate and direct responses are triggered by such stimuli," (DeFleur and Ball-Rokeach, 1989 in Williams, 2003:171). In other words, "the media were credited with considerable power to shape opinion and belief, to change habits

of life and to mould behavior more or less according to the will of their controllers," (Bauer and Bauer, 1960, in McQuails, 2005:458). Although this theory was found to be 'crude, simplistic and naïve,' it has not been kicked out. Instead, efforts followed to elaborate and correct it. The media had not been found without effects or influence, McQuails discusses, "rather there was no direct or one-to-one link to be expected between media stimulus and audience response," (McQuails, 2005:459).

Hence the limited effects theory followed. This theory, as Williams discusses, opposes considering people as passive recipients of media contents and accepts them as individuals who could interpret what they saw and heard in line with their own already established beliefs. Dominant approaches in this theory are the two-step model and uses and gratifications (Williams, 2003:174-179).

The basic notion of the two-step model (TSM) approach is that the media do serve opinion leaders who have a very strong influence on the less active section of the population. Hence, according to this model, face-to-face communication is more powerful than the mediated one. Summarizing this approach's implications, Seveas says:

two elements are involved: (a) the notion of a population divided into "active" and "passive" participants, or "opinion leaders" and "followers"; and (b) the notion of a two step of influence rather than a direct contact between "stimulus" and "respondent" (or the so-called bullet or hypodermic needle theory)" (Servaes, 1999:23).

The uses and gratifications approach (UGA) was first described by Elihu Katz (1959). According to this approach, different people can use the same mass communication message for very different purposes. Hence, the research question should be "What do people do with the media?" (Severin & Tankard 1979:250-251). According to Watson,

This ...approach worked from the premise that there is a plurality of responses to media messages; that people are capable of making their own minds up, accepting some messages, rejecting others, using the media for a variety of reasons and using them differently at different times (Watson, 2003:62).

McQuail (2005) says audiences are often formed on the basis of similarities of individual need, interest and taste, and typical of such 'needs' are those for information, relaxation, companionship, diversion or 'escape'. Audiences for particular media and kinds of content can often be typified according to such broad motivational types (McQuail, 2005:423).

### **2.5.2 Social-Cultural Effects Theories**

Dissatisfaction with limited effects theories due to their 'focus on individual psychology of the audience and their failure to locate discussion of media effects in a broader social context' has led to the emergence of cultural effects theories. These theories, while accepting media's effects, they argue the effects are "the product of a cumulative build up of beliefs and values over a long period of time," (Williams, 2003:179). Social learning theory, agenda setting theory, diffusion of innovation, and cultivation theory (McQuails, 2005:479-501; Williams, 2003:179-183) are discussed.

#### **2.5.2.1 Social Learning Theory**

According to Bandura's (1986) social learning theory, direct personal observation and experience are not the only causes of our behavior; we learn much of what we need to guide our own development and behavior from indirect sources, including mass media, (McQuail, 2005:493). Four basic processes of social learning that occur in sequence, according to Bandura's model, McQuail lists, are: attention; retention; production; and motivation. Discussing each, he says:

Our *attention* is directed at media content of potential relevance to our lives and personal needs and interests. We may then *retain* what we have learnt and add it to our stock of prior knowledge. The third stage – that of *production* – refers to the actual application in behavior of lessons learnt, where it may be rewarded (reinforced) or punished, leading to greater or less *motivation* to follow any particular path (McQuail, 2005:495).

Regarding the role of the media, though they are not the only source of social learning and their influence depends on other sources such as parents, friends, teachers, and so on, McQuails stress, social learning theory holds that media can have direct effects on people and their influence does not have to be mediated by personal influence or social networks (McQuails, 2005:493-494).

#### **2.5.2.2 Agenda Setting Theory**

The agenda setting theory (AST) of the mass media says the mass media is capable of selecting and emphasizing on certain issues and thereby cause those issues to be perceived as important by the public, Severin & Tankard 1979:253. Maxwell E. McCombs and Donald L. Show state explicitly the agenda setting function of the media as:

This notion of the agenda setting function of the mass media is a relational concept specifying a strong positive relationship between the emphases of mass communication and the salience of these topics to the individuals in the audience. This concept is stated in causal terms: increased salience of a topic or issue in the mass media influences (causes) the salience of that topic or issue among the public (McCombs and Show, 1977:12).

Cohen's expression that says: "It [the media] may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its readers what to think *about*" (Cohen, 1963:13), summarizes the agenda setting function of the mass media (Dominick, 1999; Severin & Tankard, 1979).

### **2.5.2.3 Diffusion of innovation and development**

As it was discussed earlier, the first proponent of this theory is Everett Rogers. McQuails discusses this model of information diffusion envisaging four stages: information, persuasion, decision or adoption and confirmation, (McQuails, 2005:490). He further lists what the media serve as agents of development by:

- (1) disseminating technical know-how;
- (2) encouraging individual change and mobility;
- (3) spreading democracy (elections);
- (4) promoting consumer demand;
- (5) aiding literacy, education, health, population control, etc. (McQuails, 2005:491).

This role of the media is dominantly observed at the first stage (information and awareness), "after which personal contacts, organized expertise and advise, and actual experience take over in the adoption process," (McQuails, 2005:490).

### **2.5.2.4 Cultivation theory**

Unlike the other theories, cultivation theory (CT) concentrates on one specific medium, television, and it predicts not direct impacts on our thinking about specific issues or the attributes of those issues, but impacts on the very way we view the world (Miller, 2005:281). Developed by George Gerbner, this theory examines the relationship between television culture and the symbolic environment it creates for the audience, the idea being that television 'cultivates' people's beliefs over a long period of time. According to Gerbner, television tells us about what is good and bad in our society; it is a symbolic system which cultivates and regulates our perception. Newbold says:

The viewer is subject to a slow, cumulative effect, related to the intensity of his or her viewing over long stretches of exposure to the values and world representations of television (Newbold, 1995:120).

### **2.5.2.5 Other media theories and long-term social and cultural change**

Several theories explain the impact of the media when communicating persuasive, informative and preventive messages to achieve behavioral change. Discussing media's long-range influence on social and cultural change, DeFleur & Dennis (1991) point out two theories. The first, accumulation theory, calls for the "process of continuous presentation of information related to some particular event or situation ... over an extended period of time," as an agent of social change. Hence, this theory "explains how significant changes take place in public orientation and action on a long-term basis," (DeFleur & Dennis 1991:559-560).

The second, adoption theory, is about "form of change which occurs within a society as people gradually adopt (individual by individual) some new form of technology, a new way of solving an old problem, or a particular new way of believing or behaving" (DeFleur & Dennis, 1991:560). In the case of safety rules, the behavior could be, for example, use of the right path for pedestrians or the principle of not driving when drunk (for drivers). The media is expected to bring such innovations and thinking to "the attention of potential adopters" so they might make decisions regarding their behavior and act accordingly. In short, adoption theory says, "the media serve as one of the causal factors in social change" (DeFleur & Dennis 1991:560).

Socialization, according to DeFleur and Dennis, refers to internalizing lessons on behavior that are approved and expected by society. They call this a long-term process that every human being undergoes as a functioning member of society. Hence, as McQuails points out, "the media can teach norms and values by way of symbolic reward and

punishment for different kinds of behavior as represented in the media,” (McQuails, 2005:494). Two theories explain this: modeling theory and social expectations theory. Modeling theory “predicts that many activities observed in media portrayals will serve as guides for persons undergoing socialization and will be adopted as part of their behavior,” (DeFleur & Dennis 1991:568).

Social expectation theory “focuses on media-provided lessons about what constitutes acceptable behavior in various group settings,” (DeFleur & Dennis 1991:568). Unlike societies without media whose members get knowledge through trial and error or other similar methods, a media society has rich sources of learning from a variety of groups and social activities portrayed in mass communications.

Other theories tie media to meaning, i.e., media-created meanings as influences on behavior. Two major ways in which mass communication provide the public with meaning for reality help shape personal and shared interpretations. The first, meaning theory, says that meaning people hold is “strongly influenced by their exposure to mass communication. Those meanings, in turn, shape people’s understanding of, and actions in, situations with which they must cope in the real world.” Mass communications play an important role in forming habits of perception and interpretation of the world; hence, the media’s portrayals of reality can indirectly, but strongly, influence behavior, (DeFleur & Dennis 1991:573).

The second, an extension of the meaning theory of mass communication effects, is stereotype theory. This “brings together the meaning theory and the older idea of rigid beliefs that are a part of a shared culture.” The basis of all complex communication is the link

between words or other symbols and the subjective meanings that they arouse within each individual. Communications are, therefore, governed by meanings of shared conventions. Given those conditions, it is clear that the part played by mass communication in establishing, extending, substituting and stabilizing the links between words and meanings is of critical importance to society, (DeFleur & Dennis 1991:578-579).

### **2.5.3 Persuasion**

Persuasion principles can be used to change public health behavior for the good (Sparks 2002). He further argues that there are mounting evidences showing persuasive health campaigns using the mass media having an effect on individual behavior (Sparks, 2002:146). He says persuasive principles are persuasive principles and hence the same principles that are applied to persuade people to engage in unhealthy behavior could also be applied to engage in healthy behavior (ibid, 2002:145).

According to Sparks, there are at least three dimensions of persuasion that scholars have identified as indicators of the media's persuasive power: change of attitude, change of behavior and behavior that persists over time. These come one after the other with significant persuasion and define what persuasion is (Sparks, 2002:127).

Two important factors that cause people change their attitude and behavior are related with source credibility and features of the message. With regards to the source, its credibility depends much on expertise and truthfulness factors. The more people perceive the source of the message as an expert and reliable or truthful, the more likely they are persuaded.

The message, on its part, requires simplicity and repetition. Messages have to be simple and to the point and that, though there are limits, repeated message are more persuasive than one that are heard only once. But that is not enough; they should also have some elements of fear, guilt and humor appeals (Sparks, 2002:142-144).

According to the protection motivation theory, Sparks says:

to the extent that fear appeals convince an audience of the severity of a threat, their vulnerability to the threat, and their ability to respond effectively to the threat, they will be persuasive. On the other hand, to the extent that the audience perceives that yielding to the persuasive message will be costly in some way, even high fear appeals might not be effective (Sparks, 2002:144).

Guilt appeals could also be used in persuasion, by trying to make people feel guilty for not responding to a persuasive appeal. Humor is also used, Sparks says:

based on the notion that humor tends to attract attention to the message, [it] creates a more favorable attitude toward the source of the message and the product, and may produce a general orientation toward the message that is less critical (Sparks 2002:145).

However, Sparks also warns of the side effects of humor that it may attract attention to itself instead of the persuasive message and as a result of which it may tend to discourage the consumer from taking the product (the behavior being advocated) seriously (ibid, 2005:145).

Venter (2000) quotes McGuire (1981), cited in Rooijers (1985), who discussed the 12-step process by which behavior change through persuasive communication takes place. He said, for an educational

campaign to be effective, the people whom it is aimed at must go through the following steps:

(1) exposure to the message; (2) pay attention to the message; (3) be interested in the message; (4) understand the contents of the message; (5) have the necessary skill to perform the required behavior; (6) change attitude in accordance with the message; (7) memorize the message; (8) recall information from memory; (9) decide to behave according to the recalled information; (10) behave according to decision; (11) confirmation of appropriate behavior; (12) consolidation of behavior (Venter, 2000).

Venter (2000) further lists what McGuire identified as five variables which may have influence on the process of behavioral change by increasing the persuasiveness of the message: the source of the message; the message itself; the medium used to convey the message; the receiver of the message; and the objective of the message (Venter, 2000).

It is underscored that for behavior change to come, (1) the target person needs to pay attention to the message, (2) the message must be clear and understandable, and (3) though mass media is expected to have the greatest effect, it shouldn't be taken for granted that the target people are interested in the message and pay attention to it since they tend to be selective. Moreover, the biggest problem traffic safety educators are confronted with is the fact that to most road users negative consequences of unsafe traffic behavior seem to be a very unlikely probability, whilst positive consequences are often experienced directly. Hence, Venter (2000) underlines the need to consider two viewpoints:

In the first instance efforts are aimed at providing the target group with the necessary insight into the negative consequences of undesired behavior and the positive consequences of desired behavior. In doing this the target group will become more aware

of the consequences of attitude. The best results will be achieved when the target person is reached more personally. A change in attitude will in general lead to a change in behavior... The second viewpoint is that it is insufficient to merely inform the target person about the importance of behavior and the consequences thereof. A more direct approach to behavioral change is punishment for unwanted behavior and reward for desired behavior. Both punishment and reward will lead to behavioral change (Venter, 2000).

Finally, Venter (2000) emphasizes the need to consolidate the behavior. He argues for positive attitude as a basis of behavior, and so behavior change based solely on reward and punishment, which does not lead to change in attitude, will not last longer. Therefore, to be effective, the educational message should be repeated at regular intervals. Moreover, Venter (2000) stresses feedback's role to this effect:

People are continuously looking for confirmation of their behavior, firstly to measure their behavior and the possible consequences against their expectations, and secondly to measure their behavior against that of others. ... it is therefore of the utmost importance to provide information about the changing behavior of the target group, especially where it is clear that the majority of the target group has changed their behavior favorably according to the message that was conveyed through the campaign. Information about the positive changes will assist the individual in the consolidation of the changed behavior (Venter, 2000).

Finally it is worth paying attention to what McQuails concludes on aspects of media and their assumed effects: "The entire study of mass communication is based on the assumption that the media have significant effects, yet there is little agreement on the nature and extent of these assumed effects," (McQuail, D. 2005:456). Moreover, describing the role of media and aspects of behavior, a paper by Servaes and Malikhao says:

Mass media are important in spreading awareness of new possibilities and practices, but at the stage where decisions are being made about whether to adopt or not to adopt, personal communication is far more likely to be influential. Therefore... mass communication is less likely than personal influence to have a direct effect on social behavior (FAO, CDR Report, 2005:25).

Therefore it is crucial to considering the role of interpersonal communication as a backup to and one working with the media. Using what has been discussed above, two-step-flow (people disseminating information they got from the media), opinion sharing (people who got messages that are intended to influence their behavior talk about them and shape their evaluative reactions to the messages), social norms and influence (based on the cultural norms of the society), it is possible for people to have influences of one over the other, and the causes of such influences could also be shaped by the contents of messages that are communicated via the media.

In order for information transmitted by the media to effect behavioral change, FAO (2005) stress not only the need to have "active involvement in the process of communication itself," but also that priorities address three general perspectives on communication for development.

1. **Communication as a process:** It is not confined to the media or to messages, but to their interaction in a network of social relationships. By extension, the reception, evaluation and use of media messages, from whatever source, are as important as their means of production and transmission.
2. **Communications media as a mixed system of mass communication and interpersonal channels,** with mutual impact and reinforcement. In other words, the mass media should not be seen in isolation from other conduits.
3. **Intersectoral and interagency concern.** This view is not confined to information or broadcasting organizations and ministries, but extends to all sectors, and its success in

influencing and sustaining development depends to a large extent on the adequacy of mechanisms for integration and coordination (CDR Report, 2005:25).

## **2.6 Conclusion**

In concluding what has been discussed so far, therefore, it is possible to prevent the human and resource loss due to road traffic injuries. To this effect, both mediated and interpersonal approaches could be employed. As to the specific strategies that could be employed, behavior change communication advocates the use of three basic strategies or theories: social marketing, health education and promotion and entertainment-education. These BCC strategies could be subsumed one another since the basic essence of each is causing individual behavior change of people for whom communication campaign is designed. The other communication for development discussed is advocacy communication. Those who are interested in the issue can have a better chance of influencing policy and decision makers if they communicate their ideas using appropriate strategies and outlets. Unlike the formers which are mainly based on behavior-change models, CSC relies on participatory approaches in emphasizing the notion of dialogue as central to development. Finally, focus on mediated communication was made and different theories regarding positive effects of the media are discussed. Persuasion is treated in depth since it is employed by most behavior change communication strategies. Before the chapter is closed, of course, the need of integrating media approach and interpersonal communication approach for maximized effect is stressed.

## **Chapter Three**

### **Research Methodology**

#### **Introduction**

The purpose of this study is to examine effect of road traffic safety radio messages on audiences and the communication strategies the media use to this purpose. In order to collect and analyze data appropriate to this goal, a combination of qualitative and quantitative methodologies, the mixed methods, was used. Hence, data have been collected both qualitatively and quantitatively. Obviously, earlier to data collection, decision was made on selection of the study area and sample of the population who would give the required data. This section, therefore, discusses the research methods employed, the data collection instruments, procedures followed in gathering the data, the study area, and sampling decisions.

#### **3.1 Qualitative and Quantitative Approaches**

Qualitative and quantitative methods have for long been used as separate and distinct approaches to scientific investigation. It was in the 1950s that the initial interest to using more than one method in a study has been started, (Creswell and Clark, 2007:13-14). Since then, however, the debate being for or against combining methods has continued. The concerns that frequently arise in opposition to combining methods are mostly from philosophical and practical grounds. However, as Creswell and Clark claim, things are changing since the turn of the millennium:

There has been a growth in the interest in mixed methods research as well as authors advocating for mixed methods research as a separate design in its own (Creswell & Clark, 2007:16).

There should, of course, be a good reason for combining designs. Hammerseley (1996), cited in Brannen (2007:283-284) discusses three reasons for researchers to combine designs: triangulation, facilitation and complementarity. Strauss & Corbin (1998:28), on their part, say that "combining methods may be done for supplementary, complementary, informational, developmental and other reasons." For this thesis, Creswell & Clark (2007) explain the benefits of the mixed approach:

Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis of data and the mixture of quantitative and qualitative approaches in many phases in the research process. As a method, it focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies. *Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone* (Creswell & Clark, 2007:5, emphasis mine).

Hence, as a research of mixed approaches, different research techniques have been used. The assumption was that, as stated above, the use of different approaches would better help understand the effect of the media in its efforts of bringing about desired change in audience behavior (behavior change communication strategies and their impact on the audience group). Moreover, it was assumed that this approach could help control different variables. The designs employed are those that fit with this interest, and are the following.

A triangulated multi-stage approach has been used to examine effect of road traffic safety messages on audiences' behavior and the communication strategies the radio use. These stages include:

1. **Quantitative survey:** to find what audience group say regarding RTS messages they find from the radio and what they do with them.
2. **In-depth interview with audiences:** semi-structured individual interviews with key informants from the audience group to find out what and why they say about the RTS programs they listen to.
3. **In-depth interview with RTS concerned bodies (experts and program producers):** to find out what they say about the trend and prevalence of road accidents over the past few years, what communication strategies they use to combat the problem, what evaluations they have about their audiences' behavior and why, and what they are planning to do in future.
4. **Text analysis of a sampled radio RTS programs:** to find what its contents are and on what communication strategies it is based when designed.
5. **Field observation:** to find out whether pedestrians and drivers show any elements of positive behavior when using the roads, and if not, to explore why it was not.

### **3.1.1 Quantitative Survey**

As a data collection technique, a survey is used when "observing the social and behavioral characteristics, attitudes, values, and beliefs of large populations" (Comstock & McCombs, 1981: 144). Survey research has been used for a long time (Gunter, 2002: 214), especially for the search of media-effect associations. For this thesis, a questionnaire was filled in through face-to-face interaction with a sampled population using a combination of cluster sampling and stratified sampling. Data collected using this technique helped specifically to:

- Find out if the population was listening to the RTS radio programs;

- Find out what the audience thought about effect of the programs, if any;
- Assess what audiences would say regarding time and content of transmissions.

Of course, there are scholars who disfavor using the survey method in audience reception studies. Hansen et al say, for example:

discovering how audiences make sense of media messages is not easily done through survey research. It is good at providing a snapshot of audience beliefs, attitudes and behavior – the what of audience media relationships, but is much less suited for telling us about the why or how of such relationships (Hansen et al 1998:257).

Hence, this has led to the inevitable use of the other - qualitative instruments - that have given in-depth insight into findings from the quantitative method.

### **3.1.2 In-depth Interview**

This technique was selected mainly because of its strength in “providing detailed background about the reasons why respondents give specific answers,” (Wimmer & Dominick, 2006). As Poindexter & McCombs (2000:268) recommend, individuals who have unique backgrounds or experiences that make them research worthy are the main focus. Hence, using this technique, pedestrians, drivers, traffic police, road traffic safety officials, communication officials from traffic police department, and journalists working specifically on road traffic safety at the radio and television station and at the Road Traffic Safety Authority were selected, and “elaborate data concerning respondents’ opinions, values, motivations, recollections, experiences, and feelings are obtained,” (Wimmer & Dominick, 2006)

More specifically, data collected using in-depth interviews with the audience group and key-informants from the experts group helped:

- Find out what these people believed regarding the messages (road safety radio programs);
- Explore whether the programs were based on any theoretical grounds of communication;
- Learn what their evaluation is on whether the preventive radio programs were effective in influencing audience behavior;
- Find out what interviewees believed the programs should focus on.

The in-depth interview was made with two respondent groups: one from the experts (national road safety authorities, road traffic enforcers, and journalists specifically working on RTS); and another from the audience group.

### **3.1.3 Other Qualitative Methods**

Text analysis of six months' transmitted RTS programs has also been made. Text analysis has been employed in order to address two focal areas. One of them is exploring format of the program and the overall themes of issues designed for public discussion. The other focus of analysis was finding out what communication strategies program producers have been employing. In other words, there was an interest of discovering whether the road traffic safety programs are designed based on any communication strategies.

Observation of pedestrians' actual road use behavior at places where traffic accidents were commonly reported has also been employed. The basic goal of employing this technique was to investigate what road use behavior pedestrians and drivers show and whether what they

have said during the quantitative survey matched with what they actually do (Flick, 2002: 134).

According to Henn, et al. (2006), observation “includes holding interviews (either informal ‘chats’ or in-depth interviews with individuals or in group situations) whenever and wherever appropriate,” Henn, et al.(2006:172). Hence, some of the pedestrians who were observed crossing roads at the wrong place were also interviewed in order to find out whether they have any safe road use awareness, how they get it (if they have, and what causes they have against using zebra markings.

Apart from the literature reviewed, discussion and analysis of any data/documents of the National Road Safety Authority, the Road Transport Authority, the media and other concerned bodies that they have secured as their research findings, resources, guidelines or information releases to the public was made. These data were compared with findings from the survey, in-depth interviews, text analysis and observations.

### **3.2 Sampling**

Although road traffic problem is a countrywide problem, I found Addis Ababa to be special. As far as statistics is concerned, in Addis Ababa, unlike any rural area of the country, almost one person dies every day and several others face serious or slight injuries just due to road accidents. On the other hand, the majority of efforts that are being made to curb the problem are concentrated in the capital. According to officials of Ethiopian Road Safety Authority, even those efforts being implemented in the regions of the country are first planned, designed or at least initiated in the capital. However, while some changes and

improvements of road use behavior are observed in some of the regions (especially in the Amhara Region and some parts of Oromiya Region, many argue that change in Addis Ababa is too far from expectations.

For a novice researcher of my type, it is quite difficult to make the investigation cover the whole city. Therefore, the study area is *Kirkos* Sub-city, one of the ten sub cities in Addis Ababa. There are several reasons for selecting it. According to recent reports of the City's Road Traffic Inspection Department, *Kirkos* Sub-city is on the top with its road accidents' record. Again, it is the centre of the city, with lots of transport routes crossing it. It is also the most crowded part of the city with a population that averages 221,000 (CSA, 2008).

It is a multi-stage sampling that combines random sampling and stratified random sampling that was sought for the quantitative survey. From the eleven *Kebeles* in the sub city, only two (*Kebele 02/03 and Kebele 17/18*) were purposively selected based on their presence on main routes of the sub city and repeated road accident histories. Then two sub-*Kebeles* from each *Kebele* were selected as sources of data. These were also selected based on their proximity to highways and/or repeated history of road accidents. The data was collected from a total of 180 respondents (90 from each *Kebele*).

A second decision made was including a good number of pedestrians and drivers from each *Kebele*. Hence, of 90 respondents from each *Kebele*, at a ratio of 2 pedestrians for 1 vehicle driver, 60 pedestrians and 30 vehicle drivers were selected. Of the 30 drivers from each *Kebele*, again, 20 taxi drivers and 10 other vehicle drivers were contacted. This ratio was expected to bring about some picture

regarding the safety behavior (awareness, knowledge and change) of each road user, as could be seen in the chapters followed.

For the in-depth interviews from the audience group, eight respondents were contacted: five from the pedestrians'/passengers' group and three from the drivers' group. Although the respondents were selected non-randomly, attempts were made to consider gender, age, social, educational and marital status, job, etc. disparities.

For the in-depth interview with RTS specialists and RTS radio program designers, five key informants were contacted: one from National Road Safety Authority, one from Road Transport Authority, two from Addis Ababa Road Traffic Inspection and Controlling Department (one program producer and one public relations officer). This was made based on the responsibilities they hold currently and at least over the past three years.

### **3.3 Data processing and analysis**

Quantitative data were analyzed statistically. They were also analyzed separately. Qualitative data from the in-depth interview with audience group and experts, field observation findings and sampled texts of the transmitted RTS messages have been thematically analyzed. Findings from the quantitative survey are compared with that of the qualitative, and as needed validations, refutations and even sometimes questions for further scrutiny have been made.

## **Chapter Four**

### **Data presentation and analysis**

#### **Introduction**

As it was described in Chapter One, the main objective of this study is to explore the effect of road traffic safety radio programs on road use behaviors of audiences and the communication strategies the media employ to achieve this purpose. Both quantitative and qualitative data pertinent to the major objective were collected. This chapter begins briefing the physical setting and population of the study area. The next is the presentation, description and interpretation of the quantitative data. It then continues with the qualitative data, analyzing them in a way that gives meaning to the quantitative data, but all with the purpose of achieving the set objective of the study.

#### **4.1 Physical setting of the study area and population**

*Kirkos* is one of the ten Sub-cities of the present Addis Ababa City Administration. Located in the middle of the city, it is bordered by five Sub-cities: *Arada* and *Yeka* to the north, *Bole* to the east and south-east, *Nefas Silk Lafto* to the south and south-west, and *Lideta* to the west, (see Appendix IV for maps of the City, Addis Ababa, and *Kirkos* Sub-city). According to the 2007 population census, there are 220,991 people who reside in *Kirkos* Sub-city, of which 103,314 are males and 117,677 females (CSA, 2008).

The Sub-city is not very wide in size. However, because it is in the middle of the city, and due the fact that it is comparatively older than most of the other sub-cities, and since it incorporates areas which are occupied by national and international organizations, it is the most

crowded part of the city. It is also among the main business centers of the capital, where many people living in other sub-cities continuously travel to and from it for business purposes. Therefore, there are quite a lot of vehicles traveling in and crossing it. Some of the main routes of the capital are also found in this sub-city. For example, the Bole Road, the *Meskel* Square, the *Debre Zeit* Road and part of Churchill Road are part of the Sub-city. It is for this reason, as most would agree that traffic-related accidents in the area are more compared to any other Sub-city.

According to recent reports of the City's Road Traffic Inspection Department, *Kirkos* Sub-city is on the top with its road accidents' record. Between July 2007 and June 2008, a total of 197 people were victims of road traffic accidents: 28 died, 59 seriously injured, and another 106 slightly damaged. Moreover, in the past nine months only, between July 2008 and March 2009, a sum of 181 people experienced the tragedy: there were 20 fatalities, 79 serious injuries and another 82 slight injuries. Accordingly, it seems that the accident rate is still on a drastic increase.

## **4.2 Quantitative data**

### **4.2.1 Socio-demographic characteristics**

All the households that were randomly selected responded to the questionnaire for this study. Although a balanced proportion of male and female household heads were expected at first, this was not achieved easily. One reason could be the fact that there were no female taxi drivers. There were also only few females who drive other vehicles. Moreover, whenever the male and the female are at home, it is usually (culturally) the male, the husband, that comes out to respond. However, attempts were made to balance the ratio. Hence,

while 56 males and 64 females responded from the pedestrians group, it was 52 males and only 08 females who responded to the questionnaire from the vehicle drivers group. As a result, the majority of the respondents, 60% of the total, were males, and the remaining 40% were females. (See Table 1 for details).

**Table 1:** Respondents' distribution by sex and pedestrian-driver group

		Pedestrians		Vehicle drivers	
		Frequency	%	Frequency	%
<b>Sex</b>	Male	56	46.7	52	86.7
	Female	64	53.3	08	13.3
	Total	120	100	60	100

Ages of the respondents range from 19 to 69. The mean, the median and the mode ages were 35.19, 34 and 40, respectively. The respondents are divided into three age groups as 19 to 30, the youth who comprise a third of the total, 31 to 50, the adult, 57%, and the rest, 50 to 69, the aged sum up to be 7%. Table 2 gives the summary.

**Table 2:** Respondents' distribution by age and marriage

	variables	Frequency	%
<b>Age</b>	19-30	64	35.56
	31-50	103	57.22
	50-69	13	7.22
	Total	180	100
<b>Marital status</b>	Single	62	34.4
	Married	98	54.4
	Divorced	08	4.4
	Widowed	12	6.7
	Total	180	99.9

Of the respondents from the sampled households, the majority, 54.4%, were in marital union at the time of the survey. The singles were almost a third of the total (34.4%). The rest 4.4% and 6.7% were divorced and widowed, respectively. These households have family sizes that range from 1 (a single living alone), up to a family of 11 members (most with children and sometimes extended families living together). (See Table 2)

As to religion, two-third (66.7%) of the respondents were Orthodox Christians. Muslims and Protestants account for 16.1% and 12.2%, respectively. The number of Catholics, of all the respondents, was only 9 (5% of the total). Table 3 shows distribution of religion of the respondents.

**Table 3:** Distribution of respondents by religion

	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Orthodox	69	38.3	51	28.3	120	66.7
Protestant	11	6.1	11	6.1	22	12.2
Catholic	04	2.2	05	2.8	09	5.0
Muslim	24	13.3	05	2.8	29	16.1
Total	108	60	72	40	180	100

The largest group of respondents was from the Amhara ethnic group, comprising 43.3% of the total. The Oromo and the Tigrie ethnic groups follow, having a 24.4% and 12.2% share, respectively. Other ethnic groups like the Guragie, the Wolayita, and the Hadiya sum up to 20% of the total. (See Table 4 for details).

**Table 4:** Distribution of respondents by their ethnic groups

	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Amhara	45	25	33	18.3	78	43.3
Oromo	26	14.4	18	10	44	24.4
Tigrie	14	7.8	08	4.4	22	12.2
Others	23	12.8	13	7.2	36	20
Total	108	60	72	40	180	100

The data collected on the literacy status of the respondents indicates that the majority, about 93%, are literate, and the remaining (7%) are illiterate. Of the literate, 38.3% said they have attended primary level education while 41.7% have attended secondary level education. Only 13.3% of the respondents said they have attended college/university level education. (See Table 5 for distribution of literacy status of respondents by sex).

**Table 5:** Distribution of literacy status of respondents by sex

	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Illiterate	04	2.2	08	4.4	12	6.7
Primary	40	22.2	29	16.1	69	38.3
Secondary	49	27.2	26	14.4	75	41.7
Above sec.	15	8.3	09	5	24	13.3
Total	108	60	72	40	180	100

In order to make comparison on road use behavior, respondents were categorized into two groups as pedestrians and/or passengers and vehicle drivers. Data collectors were told to consciously make two-

third of the total sample be pedestrians/passengers, and the remaining a third be vehicle drivers. Members of the second group (vehicle drivers) were also made to consist of taxi drivers and other vehicles drivers with a ratio of 2 to 1. Thus, of the 90 respondents from each *Kebele*, 60 were pedestrians/passengers, 20 were taxi drivers and the rest 10 were other vehicles drivers.

Therefore, respondents of the pedestrians/passengers group are employees of governmental or non-governmental organizations, macro or micro businesses owners, housewives or pensioners. The taxi drivers are, obviously, drivers by profession. On the other hand, of the members of other vehicle drivers group, most of them are similar to the pedestrian/passengers group by profession, but drive their own (their families') cars. The rest are employed non-taxi vehicles' drivers for governmental or non-governmental organizations.

With an assumption that there could be some association between car accident experience and road use behavior, respondents were asked if they or their close friends/relatives had experienced any road accidents over the past five years. Results reveal that the majority of the respondents (75%) experienced no car accidents at all. Only 25% of the respondents said they had experienced car accidents that caused them only slight injury. While 24.4% of the respondents said their close friends/relatives had experienced car accidents that caused them slight injury, about 29% said they lost at least one of their close friends/relatives due to road accidents. The table below summarizes the data on this issue. (See Table 6 for details.)

**Table 6:** Accident history of respondents and their friends/relatives

		Pedestrians/ passengers		Vehicle drivers		Total	
		Freq.	%	Freq.	%	Freq.	%
<b>Accident incidents of</b>	<b>Resp.:</b>						
	Serious	-		-	-	-	-
	Slight	26	21.7	19	31.7	45	25
<b>Relatives (friends)</b>	Death	36	30	16	26.7	52	28.9
	Serious	-		-		-	
	Slight	33	27.5	11	18.3	44	24.4
<b>No incidents of accidents</b>	Respo.	94	78.3	41	68.3	135	75
	Relatives (friends)	51	42.5	33	55	84	46.7

#### 4.2.2 Ownership and use of communication devices

Respondents were asked which communication devices they possessed, used at home, or mobile (newspapers, cell phones and/or fixed radios on the cars they drive if they are vehicle drivers). Almost all the respondents (100%) said that they possessed radios, 59% had TV sets, 44% had fixed telephones and 52% owned mobile phones.

They were also asked which of the devices they preferred as sources of information in general and RTS messages in particular. In relation to their media use habits, in order to get information about what was happening in the country/in the city, most (about 79%) said radio is their most preferred medium. TV was the second most preferred medium for 35% of the respondents.

Apart from communication devices, a significant number of respondents (about 31% of the total) preferred other people too as their most preferred sources of information. Newspapers and billboards

were also most preferred sources of information for 19% and 28% of the respondents, respectively. (See Table 7 for the details).

**Table 7:** Respondents' preference of communication devices

	Always		Sometimes		Never	
	Freq.	%	Freq.	%	Freq.	%
TV set	63	35	106	58.9	11	6.1
Radio	142	78.9	38	21.1	0	0
Print	35	19.4	95	52.8	50	27.8
Billboards	50	27.8	86	47.8	44	24.4
Other people	55	30.6	76	42.2	49	27.2

Here, there existed some variation with regard to medium preference between vehicle drivers and pedestrians/passengers groups. While the majority of vehicle drivers put radio as their most preferred source of information (about 83%), the percentage for radio preference with pedestrians/passengers group was 63%, since a good deal of respondents (41%) rated television as their best medium.

Regarding radio listening habit, respondents were asked for how long they listen to the radio per day, on average. About 45% of the respondents said they listen for over 4 hours, about 29% said for 1 to 2 hours, and about 14% said for 3-4 hours a day. The remaining 11% said they listen for less than an hour a day. Overall almost 60% of respondents listen to the radio for over three hours a day.

#### **4.2.3 Exposure to road traffic safety messages**

As to getting RTS messages from the media, 45% of the respondents said they always get the messages, 43% said they get them sometimes and another 12% said they get them, but rarely. No respondents said they never get RTS messages.

Again, radio is the most preferred source of RTS messages for the majority of the respondents (69%). The second most preferred medium is TV, 58% of the respondents preferred it as source of RTS messages. Print materials like newspaper and pamphlets have a third position (54% of respondents preferred them). Billboards were selected by a 30 % of respondents.

Asked if they remember listening to any RTS radio messages or program(s) over the past six months, the majority, about 72%, said that they remember. The rest 28% said either they did not listen to or did not remember listening to RTS messages or programs.

Major disparity in the respondents was observed when they reacted to the question of which radio station they frequently use for RTS messages. Overall, FM radios take the lion's share over MW radios. The most favored and heard stations were FM 96.3, FM 97.1 and FM 98.1, with shares of about 52%, 32%, and 12%, respectively. Other radios, National Service of Radio Ethiopia and Radio *Fana*, though they have road safety programs that they air, they are not preferred by a significant number of respondents as sources of RTS messages; only 4% of the respondents listen to the frequently.

#### **4.2.4 RTS knowledge and behavior**

The overall themes of the main questions of the questionnaire were the following and each question was designed to help get information from the respondents at least about one of these themes.

- Contents of road traffic safety radio programs
- Road traffic safety measures (against road accidents causes)
- Respondents' reactions to messages they listened to

- Road traffic safety as a topic of public discussions
- Overall RTS knowledge and behavior of participants

An attempt was made to understand what themes/contents of RTS radio messages the respondents usually listened to. Four themes frequently aired by RTS radio programs were listed for the respondents to choose from (with the possibility of giving more than one option). This question was for those who heard RTS messages over the past six months. Accordingly, they all said *news about road traffic casualties and resource damages, and lessons and pieces of advice for pedestrians and drivers on using roads safely* are the main contents of radio RTS messages. In addition to that, *information about which route is clear and which is full of traffic* is the other focus of RTS messages for about 75% of these respondents. Another RTS radio program's focus, *discussion on road traffic safety problems, their causes and solutions* was selected by about 86% of these respondents.

Respondents were also asked to explain what specific RTS measures they could remember listening to over the past six months. The list could have been very long here, but selected ten were given as choices (decision on the list was made after discussions with PR officer of Addis Ababa traffic police on the most frequent causes of car accidents in the capital over the past three years). Surprisingly, almost all the respondents said they remembered listening to them all. There are even respondents who have added the list, apart from what was given in the list that included:

- Observing speed limits
- Not driving when drunk
- Driving keeping one's distance from other cars in front/behind
- Giving priority for pedestrians

- Respecting traffic lights and other road signs
- Using seat belts
- Taking a good care of vehicles before and while driving
- Using zebras when crossing roads (for pedestrians)
- Taking the right side and/or pedestrians' platform (for pedestrians)
- Using bridges when crossing highways (*Kelebet Menged*)

Respondents were also asked to state what they frequently do with the RTS messages they listened to from the radio. While all the 118, those who remembered listening to RTS messages over the past six months, said they applied them whenever they traveled, 74% said they also discussed these issues with friends/family members.

Respondent were further asked what they would do if they were exposed to RTS radio messages by accident. It was to find out what the respondents would do with RTS message when they accidentally find it in a public transport, at their work place or even at home, when they encounter with it while they were probably searching for other programs. In their responses, the majority, about 77%, said that they would listen to the messages attentively. About 41% said that they would also involve in if they find them interactive. The rest 19% were either not sure whether they would pay attention to the messages or would avoid listening to them all in all.

Asked to explain what reasons they could have if there were any cases when they did not pay attention to or totally avoided listening to RTS messages, the respondents mentioned mainly three reasons. The first, with 64% response rate, was finding the RTS programs overlapping with other programs of their interest. The second reason that hindered 38% of the respondents from listening to RTS messages was the belief respondents have that the presentations are

unattractive. There were also a few others, about 5%, who said they knew the RTS messages very well and that there was nothing new they expected to get from the programs. So they said they avoided listening to RTS messages at all.

Respondents were also asked what reasons could have affected them negatively from applying the RTS messages they got (accidentally or intentionally) from the media. They were asked to choose more than one answer (if that fits to them). Lack of adequate road infrastructure was the one dominantly chosen by 66% of the respondents. Lack of adequate knowledge/information was a reason for 65% of the respondents. Fear of (time, energy, resource, etc) cost that the respondents had to pay if they applied the RTS advice was a reason for 50% of them. The fourth important reason that affected about 30% of the respondents from applying RTS messages they heard was influence of other people. They said most others do not apply them, and they did not want to be exception. There were also other reasons. Table 8 summarizes these.

**Table 8:** Factors respondents claim affecting them from applying RTS messages

Possible Reason	Freq.	%
Lack of adequate knowledge	117	65.00
Lack of adequate road infrastructure	119	66.11
It costs you a lot (your time, energy, resource, etc)	90	50.00
Most others do not apply them, and you don't want to be an exception	53	29.44
You don't feel you would face accidents	17	9.44
You believe God protects you	27	15.00
You believe you can't escape a road accident if it is to come	45	25.00

#### 4.2.5 Interpersonal communication on RTS

As it was discussed in Chapter Two in the literature, whilst the media is best to disseminate information to a wide range of population to create awareness, interpersonal communication is stronger to effect practical behavior change.

Respondents were asked to mention whom they heard talking about RTS issues other than the media. As the figures below show, it is only friends (56.7%) and colleagues (45%) that the majority of the respondents heard most talking about RTS issues. Others like religious leaders and government authorities were heard by only 14.44% and 10% of the respondents, respectively. It can be inferred that the issue has not yet come a public concern.

Regarding how often they discuss RTS issues with family members or friends (if they live alone), the subjects came up with various replies. The table below, Table 9, summarizes the responses given by the respondents. Accordingly, 30% of respondents said they discussed RTS issues always, 37.8% sometimes and 23.3% rarely. The rest, about 9% of the total, never discussed RTS related issues with family members/friends.

**Table 9:** Respondents' habit of discussing RTS issues with family members and on public forums

		<b>Always</b>	<b>sometimes</b>	<b>Rarely</b>	<b>Never</b>
Respondents' habit of discussing RTS issues with family members	<b>Freq.</b>	54	68	42	16
	<b>%</b>	30.00	37.78	23.33	08.89
Respondents' habit of taking part on public forums discussing RTS	<b>Freq.</b>	02	10	45	123
	<b>%</b>	1.11	5.56	25.00	68.33

Asked to tell how often they took part in public forums (organized by religious or other social security groups like *Idir*, *Iqub* or governmental units like *Kebele*) that might have raised RTS issues for public discussions, only 1.1% of the respondents said that they always take part in such forums while 5.6% said sometimes. On the other hand, 25% of them reported that they participate rarely. The majority (68.3%) said they never took part in discussion forums such as the ones mentioned above. Table 9 summarizes these issues.

Those who said rarely and never were further asked what their reasons were (for not taking part or doing it rarely). The majority, 51.2%, said they didn't find the issue (RTS) set on agenda by the respective leaders of the meetings. The rest, 41.7% and 28% said they did not get the chance to take part and they did not have time to spare for such an issue, respectively. No one said, "I do not think it is important." to discuss the issue. (See Table 10 for details)

**Table 10:** Respondents' reasons for not taking part in gatherings on RTS issues

Possible Reason	Freq.	%
You don't think it is of any value.	0	0
You don't get the chance to take part.	70	41.67
You don't have the time to spend on such issues.	47	27.98
You never found it set on agenda.	86	51.19

Finally, respondents were asked whether they remembered/experienced a road traffic police telling/ teaching pedestrians about safe road use. Surprisingly, 49.4% of them said that they never experienced a traffic police doing so; and another 36.7% said they saw, but rarely. Those who experienced police telling/teaching pedestrians about safe road use always/sometimes constitute only 14% of the total. This, as it is discussed in the forthcoming sections, contradicts with findings of text analysis of RTS programs, where the traffic police always say they are teaching pedestrians about how to cross at zebras, but agrees with the researcher's formal and informal observations held throughout the study period as no traffic police was observed telling/teaching pedestrians about safe road use.

#### **4.2.6 Audiences response to *Yetirafik Dehininet* RTS program**

Addis Radio (mainly known as FM 96.3) was established in 1997. It is one communication arm of the City's Mass Media Agency. By now it has a total of 18

hours transmission per day with various programs. While most of the airtime is covered by music and a variety of educative, informative and entertaining programs that are produced by the agency's workforce, there are some other social, economic and cultural agenda that are produced by different governmental and non-governmental organizations. Among the governmental institutions that are given airtime to promote their agenda is Addis Ababa City Traffic Inspection and Coordinating Office, AACTICO.

AACTICO, for the past 2½ years has been using the airtime it is given by the City's Mass Media Agency to inform, educate and cause behavior change among drivers and pedestrians in the city and around, areas of up to 170 km radius, where the transmission reaches.

AACTICO is given Tuesday and Thursday mornings between 7:20 and 8:30, except some five minutes at 8:00 which is allocated for news release. As it is discussed in the analysis of the contents of the program, this program is unique as compared to any RTS programs aired elsewhere in that it is mainly interactive. Hence, respondents were asked if they listened to this program and more so as to elicit what they would say about the program's content, effect on their road use behavior, design, presentation, airtime and the like. Their responses are summarized below.

First, respondents were asked how often they listen to this program. As is indicated in Table 11, the majority of them, about 66%, said they do listen: 29.4% always, 23.9% sometimes, and 12.2% rarely. Only a third of them, 34.4%, said they never listened to this program. Hence, excluding these last group, other questions were added to the program's listeners.

**Table 11:** Respondents' listening habit to *Yetrafic Dehininet* RTS radio program

<b>Items</b>		<b>Always</b>	<b>Sometimes</b>	<b>Rarely</b>	<b>Never</b>
How often do you listen to AATP RTS radio programs	<b>Freq.</b>	53	43	22	62
	<b>%</b>	29.44	23.89	12.22	34.44
How long is it since you've been listening to AATP RTS radio programs		<b>Less than 3 months</b>	<b>3 to 6 months</b>	<b>7 to 12 months</b>	<b>Over a year</b>
	<b>Freq.</b>	15	13	21	69
	<b>%</b>	12.71	11.02	17.80	58.47

The second question was raised to elicit how long respondents have been listening to the program. As it is summarized above, in Table 11, the majority of the respondents, about 58%, said it had been over a year since they started listening to the program. For about 18% of the respondents, it had been 7-12 months since they started listening to the programs. About 13% said it was less than 3 months since they started listening to the program, and the remaining 11% said they had been listening to the program for the past 3 – 6 months.

Respondents were asked what comes to their mind whenever they think of the program. The general format of the program was given to choose from. Accordingly, the majority of the respondents (40.7%) said it is the logo, the song that says *Drive Safely*, which comes to their mind first. Of course, these were followed by other 33.05% who said it is the day's accident report with its details that comes to their mind. The third most frequently mentioned (by 22.9% of the respondents) is topic/theme of each day's discussion.

Regarding the RTS messages' presentation, respondents were asked to reflect on their perceptions or evaluation about the program, saying *I agree*, *I disagree* or *I am not sure*. Table 12 summarizes their responses.

**Table 12:** Respondents' evaluations about nature of the RTS radio program

	Agree		Disagree		Uncertain	
	Freq.	%	Freq.	%	Freq.	%
1. The logo (the song) is appealing.	115	97.46	1	0.85	2	1.69
2. The live and interactive nature of the program is interesting.	108	91.53	7	5.93	3	2.54
3. The messages are easy to understand.	97	82.20	13	11.02	8	6.78
4. The messages are persuasive enough.	88	74.58	23	19.49	7	5.93
5. The messages promise personal benefits.	87	73.73	21	17.80	10	8.47
6. The messages are of appropriate length.	72	61.02	36	30.51	10	8.47
7. The messages are of appropriate depth.	76	64.41	32	27.12	10	8.47
8. The airtime of the messages is appropriate to reach a good deal of audiences.	54	45.76	39	33.05	25	21.19

As to the program's logo, the song, almost all the respondents who listen to the program (97.5%) agree it is attractive. Whether it was appropriate for the program to be live and interactive was also accepted by the majority (about 92%). About 82% of the respondents said the messages were easy to understand, while the rest 18% either did not agree with the statements or were not sure what had to say.

Though about a quarter of the respondents did not agree/were not sure whether the messages were persuasive enough to them, 75% said they were. Again about 74% of the respondents said the messages promised personal benefits, about 18% said they didn't, and 8% were not sure what had to say.

As to the length of the programs, 61% said they were of appropriate length and 31% said they were not. Other 8% were uncertain. On the other hand, 64% of the respondents said the programs were of appropriate depth, 27% said they were not and the rest 8% said they were not sure what to say. Pertaining to the

appropriateness of the airtime for audiences, however, variations are wide: 46% said the airtime is appropriate; for 33% of the respondents it is not, and the rest 21% were not sure what had to say.

Asked whether these radio programs gave them the necessary RTS knowledge, the majority, 88% said it did, 4% said it did not and the rest, about 8%, were no sure what had to say.

**Table 13:** Respondents’ belief about the RTS messages as sources of knowledge and causes of road use behavior change

Items	Yes		No		Not sure	
	Freq.	%	Freq.	%	Freq.	%
Do the messages give you the necessary RTS knowledge?	104	88.14	05	4.24	09	7.63
Do the messages change your road use behavior positively?	101	85.59	04	3.39	13	11.02

Respondents were also required to explain whether they think the messages had positively changed their road use behavior or not. Thus, 85.6% were confident enough to say that the programs have changed their road use behavior positively. While only 4, i.e. 3.4% of the respondents, said the messages did not change their road use behavior, 11% said they were not sure what had to say.

The last question raised asked respondents how much confidence they had about the program as a source of RTS messages. In response to the inquiry, the majority of the respondents (74%) said they have quite a lot of confidence about the program as a source of RTS messages. Some 22% said they are not confident very much, and the rest 4.2% said they were not confident at all in the program.

### 4.3 Qualitative data

Apart from the quantitative survey, qualitative data from several sources have also been collected. It was believed from the beginning

that, through triangulation, it would be possible to find out elements which could not be found if only one data gathering method was used. Hence, in order to get deeper insight into the behavior of respondents with respect to RTS radio messages and what they do with them, qualitative data has been collected through text analysis, in-depth interview and observation. Analysis of the data gained through text analysis is done separately. However, it was found convincing to merge findings from in-depth interview and observation. Each is discussed below.

#### **4.3.1 Text analysis (of RTS radio messages)**

As it was discussed in chapter three, the very reason for the decision to use textual analysis was to find out what the general contents of the RTS programs and what communication strategies producers use when designing programs to convey those contents.

In the quantitative survey, respondents were asked whether they remembered listening to RTS radio messages over the past six months and what contents they could remember from these programs. It was during the first week of April, 2009 that data of the quantitative survey were collected. Therefore, for the text analysis of aired RTS messages, it was found logical to cover the previous six months, October 2008 to March 2009. However, this decision was also made considering the limited time span the researcher had, and due to the fact that the programs are highly homogeneous.

The researcher, therefore, believed that the objective set could be achieved with the analysis of the programs that were aired on Tuesdays and Thursdays between the months October and March.

However, not all the six months' transmitted programs were found at the audiovisual library of the station. While over 48 programs were expected to have been aired and stored at the library, only 37 were found and analyzed. The rest may have been displaced or totally lost, since the reels at the studio are frequently reused. Or, maybe, they were not recorded from the beginning, as one of the librarian said.

The program begins with an instrumental music, which soon is followed by the presenter's voice, which says, *Yetrafic Dehininet*, roughly means *Traffic Safety*. What follows next is description of the objectives of the program:

This is a program in which we talk about our city's road safety. It is a program in which we teach and create awareness on drivers and pedestrians about safe road use. The program gives the public the chance of raising and discussing road safety problems, and suggesting solutions to curb these problems.

Let's talk about our City's road safety.

*Yetrafic Dehininet.*

This is followed by program producers' greetings, their names, the date and invitation to audiences to tune to the program to the finish.

It is mostly the song, the program's logo that comes next. The song begins with horrifying sound of a car causing/encountering accident. It was written, composed and sung by an artist called *Moges Teka* to convey RTS lessons. (Many people identify the song with the FM 96.3 *Yetrafic Dehininet* RTS radio program). The song mentions frequent causes of road crashes and bits of advice for safe driving. The full verses of the song, as roughly translated, are:

*Let's always drive slowly and patiently,  
So that we won't sacrifice lives and cause injury; 2X  
Recognizing that we've huge responsibilities,*

Whenever we travel let's be careful,  
Excessive speed and being first are not measures of  
capabilities,  
Let's have patience and be full of care.

*Let's always drive slowly and patiently,  
So that we won't sacrifice lives and cause injury; 2X*

Let's give priority to pedestrians, at every curve,  
So that lives-taking accidents be minimized,  
Let women, children and the elderly,  
Be saved from being killed by car accidents;

*Drive safely, and slowly,  
Don't rush, as you could arrive, relaxed, 2X*

Your children think of your children,  
Your spouse, think of your partner

*Let's always drive slowly and patiently,  
So that we won't sacrifice lives and cause injury; 2X*

While driving, let's not lose our concentration,  
As recklessness could cause accident,  
Since a lost life could not be found again,  
Whenever and wherever, let's be governed by law.

*Let's always drive slowly and patiently,  
So that we won't sacrifice lives and cause injury; 2X*

Freed from alcohol, drugs and other addictions,  
Let's be alert, taking enough sleep  
Exhausted driver would always lose concentration  
And all of a sudden devastates peaceful life

*Drive safely, and slowly,  
Don't rush, as you could arrive, relaxed, 2X*

Your children think of your children,  
Your spouse, think of your partner

*Drive safely, and slowly,  
Don't rush, as you could arrive, relaxed, 2X*

The producers then air the 24 hours' accidents report of the city. On presentation, their mood mostly changes with the nature of the report; if there are many accidents (especially causing fatalities), the presenters would be sorrowful and if there is no death recorded and

are only a few accidents, they would say they are happy and show a mood that reflects this. Places of the accidents, causes and detailed pictures (descriptions) of the incidents are also given, with bits of advice for audiences (drivers and pedestrians) so that they could learn from the reported cases.

Then the producers recall topics of discussion in the previous programs and comment on them. They then declare that a new agenda was set for the forthcoming discussions, or tell the audience that the former topic would further be treated. On occasions, they might treat two topics together; when a new one is begun, the former could also be mentioned and treated at the same time. In most cases, discussion agenda are set by the producers, mostly based on what was observed as cause(s) of accidents over the past weeks/months, and/or what was supposed to be cause of accidents in the forthcoming weeks. Road related problems participants observed and mentioned over the past week/weeks could also be topics of discussion for the forthcoming weeks.

The audiences are then recalled the phone numbers (mostly they are given two lines, but sometimes only one) they could use and are invited to call and share their experiences (what they have observed as traffic-related problems and what they would like to suggest as solutions) on the topic given.

It is mostly until the audiences give calls that the song – the logo of the program - is aired. This song continues being aired, interrupted now and again whenever audiences are online for discussions, or producers revise, comment on or remind audiences the phone numbers and topic of the day's discussion.

The live transmission of audiences' calls and their ideas from Addis Ababa and out (there are people calling from Woliso, Assella, Meki, and other areas at 175 km radius from the capital) continues until 8:00a.m, when short morning news is released. The program goes on after the news. There are about six to nine people entertained for the live discussion every program day, each talking for about one to four minutes. However, it seems that a few people are dominating the discussions, appearing on air now and again - a case that could never be difficult to recognize for a frequent listener of the program.

The contents of the discussions in the aired programs during the six-month period could generally be categorized under eight themes. Each topic was given a total of two to five days of coverage. They were:

- **Different sub-cities' traffic police work performance:** almost a third of the reels found at the library hold discussions on the works of traffic police in several sub-cities of the capital. Here audiences were given chances to comment on the strengths and weaknesses of the traffic police they have observed and at the same time to suggest solutions to the problems they had experienced.
- **Pedestrians' road use behavior:** how much pedestrians know about safe road use and what care they should take when traveling, like when crossing roads. A lot of comments on pedestrians who do not respect traffic rules/advice given by the media are heard.
- **Let pedestrians' path be for pedestrians:** there are people who block or even totally occupy pedestrians' sidewalks and so cause them violate traffic rules, i.e., share cars' path, the lane, risking their safety. The most widely mentioned and talked about obstacles to pedestrians' safe road use are illegal street traders, construction materials traders (putting their stuff on the pedestrians path), people who fenced the path because they had stored building

materials (like sand and stone) for the construction of new buildings there, and governmental organizations like Telecommunication and Water and Sewerage Authority who do not resurface the path properly after they had dug them for new infrastructure expansion or rehabilitation of the former.

- **Drivers vanishing after they cause fatal accidents on pedestrians:** why do they do so? Is it because of the new penal code that says they may be sentenced for up to 15 years' imprisonment? Who is to be penalized that much? Is there any means of lowering such a severe penalty, because of showing regret by trying to help the victim? What if the fault is that of the pedestrian? The interest here was to give lessons for drivers to help the victim instead of abandoning once they caused the accident. This program was designed in response to frequent incidents of drivers' disappearing after causing accidents.
- **Female drivers are more careful than male drivers:** national and international data were used. And the objective of designing this topic was to enable male drivers learn from 'the naturally endowed care females have'. Of course, it was frequently said that every body should be cautious, and should never rush to generalization as there are some male careful drivers and a few female careless drivers.
- **When drivers are penalized/charged for some violations** they commit in the streets, and if they are not convinced of the charge and if they couldn't come to terms with the traffic police who charged them, where could they bring their appeals? Drivers were invited to air their experiences on such 'unacceptable' accusations and what they did as a result. Of course, there were many drivers who complained about some traffic police this day.

- **Is it necessary to penalize pedestrians?** Which should come first, teaching/training or punishing? What is wrong if we have some regulations against pedestrians who do not respect traffic rules? The need of enforcement to improving safe road use was the interest of this theme. There were many people who blame some pedestrians as causes of traffic accidents. On the other hand, others insisted on teaching pedestrians and clearing sidewalks from obstructions instead of rushing to penalty, which they said could have dire consequences. The purpose of this topic, however, seems to urge responsible bodies in the country to think over it.
- **The yearly cars' technical inspection:** is it just enough to say the cars are really technically fit to serve the whole year once they pass the yearly test? There are some car owners, individuals and even government organizations who borrow some car spare parts from others only for the inspection day, as it was raised. Can't there be accidents that cause death, disability and resource damage because of technical failure of cars? What are the solutions? People have suggested a number of solutions, like accidental inspection and a role traffic police could play with this regard.

These were the basic topics that were raised for discussions, each being give a minimum of two days and a maximum of five days. However, most of the time, these topics were not always respected by the audience. If, for example, the day's accident report told that there was a person who died or was severely injured because a driver didn't give him priority, then the majority of airtime could be covered raising issues related with the incident, even if the topic of discussion for the date is quite different.

At about the end of the programs, traffic police at different sites of the city are given live air time to tell the traffic condition at the spots at the moment and the morning as a whole. They especially focus on how drivers and pedestrians are using the roads and how they should behave. However, since they use their walkie-talkies for the live communication too, sound quality is mostly the poorest.

All in all, the dominant format of the program is live discussions on selected themes. This is, of course, supported by comments by the producers while an audience is speaking (through interaction), and/or before/after audiences give calls. The producers would usually have nothing prepared beforehand except the theme of the day's discussion and the bulk of experience they have had on it. They do have many things to say themselves, though they prefer to give the chance of saying it for their audiences. If there is a need to have an expert on the issue to explain more, they usually invite them so that they could say whatever is needed to the audience.

As to communication strategies under implementation, of course, no clearly applied strategy is observed. Obviously, their goal is changing road use behavior of both drivers and pedestrians, and that of people on streets that hinder the smooth flow of traffic. It seems that they are selling traffic related ideas to those who pay their attention, their time and even their money through call expenses. They try to convince people to act accordingly, offering them with traffic related knowledge and information, and dominantly using appeals.

As a source of RTS knowledge and information, and hence creating awareness, it is evidenced by the results of the survey of Kirkos Sub-city respondents that the program is successful. However, with regards

to real behavior change and safe road use, the following: in-depth interview and observation results would give better insight.

#### **4.3.2 In-depth interview and observation**

The in-depth interview involved informants from the two main groups: the experts and the audiences. The first include people who are of key role in road safety offices and/or road safety communication. These people came from different sectors in the country/city: one from National Road Safety Office, one from the Road Transport Authority (a radio program producer), two from Addis Ababa Traffic Police Department (a public relations officer and a radio program producer) and one from *Kirkos* Sub-city Traffic Police Department (Traffic Police Shift Officer). In-depth interviews with individuals from the audience group were also held. Efforts were made to make the respondents comprised of people of different socio-demographic background, but all from *Kirkos* Sub-city. Therefore, there are people from the two sexes, different age groups and from pedestrians and vehicle drivers groups.

Interview guide was prepared earlier, but the questions were not necessarily followed. It was the respondents' in-depth discussion on the issue that was felt more important and so acknowledged. However, whenever they deviate from the objectives set or when they somehow overlooked areas that were considered to be essential to achieving the research goal, direct questions were applied. Not all responses were analyzed here, unlike the case for the quantitative data. Only those found consistent and relevant to the objective were analyzed.

As it was discussed in Chapter Three, the in-depth interview with the audience and experts groups has focused on finding out themes on the following areas of interest:

- Finding out what these people believed regarding the messages (road safety radio programs);
- Exploring whether the programs were based on any theoretical grounds of communication;
- Learning what their evaluation is on whether the preventive radio programs were effective in influencing audience behavior;
- Finding out what interviewees say the programs should focus on.

Moreover, field observation at selected areas in the study area, *Kirkos* Sub-city, was also made. While there were many things to observe, and actually observed, it was found difficult to analyze them all in detail. Time is one problem. Accessibility is the other, as for example, it was difficult to have follow-up questions for drivers after observing their road use behavior at traffic lights or zebra crossings. Therefore, the focus of the observation was pedestrians' road use behavior, especially how they cross streets, i.e., whether they use zebra crossings. This was selected because almost all the key informants from the experts group mentioned use of zebra crossings as a typical example of pedestrians' positive change in road use.

Four sites in the Sub-city were selected for the observation: *Kasanchis* area (the heart of the Sub-city), *Olompia* area (on the Bole Road), *Meskel* Square (at the entrance to *Bole* Road) and *Biherawi* (National) Theatre area (on the Churchill Road). Traffic (vehicles and pedestrians) is too much at these areas. At least two zebra crossings at these sites were selected for the purpose, and pedestrians were observed whether they really respected the crossings when they crossed the roads. Some of them were also asked simple follow-up questions: why they crossed on the zebras if they did, or why they did not otherwise. Efforts were also made to find out whether they listened to any RTS radio

messages and if they were to attribute the positive characters as results of the radio messages, among others.

A one hour long observation was made at each site. [The time span included time taken for interviews with volunteer pedestrians that showed positive character - those who used zebra crossings, and volunteer pedestrians that showed negative character - those who did not use the zebra crossings.

According to Smith (2008) 51.7% of pedestrians in Addis Ababa cross roads on the marked zebra. He further pointed out that drivers do not give way to pedestrians waiting to cross the road at a zebra and even do not give way to those already crossing. My observation seems to agree with that on two sites: *Meskel Square* area and *Biherawi* area. Maybe it is because of the nature of the areas. They are very risky places with a lot of cars fleeing. But the case of the other sites is completely different. There are many people crossing the roads everywhere, with no fear of the cars rushing each direction. There are people who even cross the streets at squares and at angles, covering very long distances and thereby widening their risk of facing accidents, but with no worry of cars coming from different directions. Overall, at these places, people who did not respect the crossings were much more than those who did. What these people said about why they did not respect the crossings is presented, whenever necessary, with discussions of the in-depth interviews.

#### **4.3.2.1 Prevalence of road accidents**

All interviewees, both from the experts' group and audiences' group seem to equally acknowledge the pervasiveness of road traffic safety problems in the country. According to one of the interviewees from the

experts group, in Ethiopia, some 2200 people die every year due to car accidents, (N.A., 27/04/09). Some of the interviewees have even tried to compare road safety problem with HIV/AIDS prevalence (M.A., 18/04/09; K.T. 22/04/09; M.O. 22/04/09). But they believe that the severity of accidents and the fact that they are repeatedly occurring makes the problem the worst. One of them said:

We listen to accident reports almost everyday; some of them are extremely severe. Death is one thing but there are many people who are badly injured and left disabled for the rest of their lives. I believe this is the worst; maybe death is better instead of suffering for 5 or 10 years, staying in bed. To your surprise, the data has by now reached to 26 or 28 accidents per 24 hours. This means we have more than one accident in every hour. ... The problem is both wide and deep, (A.T., 21/04/09).

In *Kirkos* Sub-city, there seems to be many contributory factors for the severity of accidents. An officer from the Sub-city's Traffic Safety Department said:

The traffic flow in *Kirkos* Sub-city is exceptionally high. It is always very crowded here. Because it is in the center, middle of the city, almost all vehicles have to cross it when they travel from one sub-city to another. It is also residence and workplace of many VIP's, local and international. It may be for this reason that more accidents are recorded here than anywhere else, (S.M., 17/04/09)

For one interviewee living in *Kirkos* Sub-city, the problem is so huge that he always worries so much about his safety. He said he never feels comfortable out of home: "Especially in *Kirkos*, the problem is on the rise. It is only when you arrive home in the evenings that you feel secured," (M.O., 22/04/09).

#### **4.3.2.2 Causes of accidents**

Most of the key informants seem to agree that accidents are frequently caused by people's recklessness. According to one of the interviewees

from the experts group, drivers in Ethiopia are responsible for 80% of all deaths and 90% of all accidents.

We have a list of reasons that cause road accident, but the main one is drivers' fault. When I say drivers' fault, one could be lack of the appropriate skills for driving vehicles. The other is related with ethical issues. In search of some unfair advantage, it is common with the public transport sector drivers to drive with excessive speed, and board passengers beyond their seat limits. In Ethiopia, 55% of people who die due to road accidents are pedestrians. And the reason is mostly because drivers do not give them priority. Specially drivers who work on business cars do not respect the traffic rules and mostly drive under the influence of chat, alcohol or other stuffs, or drive for a very long time (being exhausted) and cause road accidents. ... This means drivers are the most responsible ones for the majority of road accidents in our country. The case in Addis is no different (N.A., 27/04/09).

The case of Addis Ababa drivers is more discussed by W.Z. a RTS radio program producer as:

Drivers' recklessness is the leading cause of accidents in Addis. They tend to do what they are told not to. They are supposed to respect traffic lights, but they violate. They are told not to park at prohibited sites, but they do. They are told not to board passengers beyond their seats, but they sometimes even double. There are about 140 don't dos but most are violated almost everyday, of course, playing hide and seek with traffic police (W.Z., 17/04/09).

The same reasons are also discussed as causes of accidents in *Kirkos*, but absence of enough man power, traffic police, is the inner cause as it was put by S.M., a traffic police officer:

Most accidents occur at places where we do not assign traffic police members. We have shortage of manpower. That is why we do not have traffic policemen at some places, like around *Lancha* area, Bulgaria Embassy, *Goterha* line, and around *Menaheria* Hotel here in *Kasanchis*. The increase of accidents at spots where no traffic police member is assigned definitely tells us that it was good to assign. But as I said, we couldn't, (S.M., 17/04/09).

In connection, the fact that accidents occur due to drivers' fault and that they aggravate at night, when there is no control is discussed by a taxi driver as follows:

The causes of accidents at night are mostly drinking alcohol and taking other drugs. At day times, since traffic police members are around, drivers are more careful and accidents are not like that of the night time. Hence, it's not bad luck or curse. The very reasons of accidents are ourselves, (G.K., 27/04/09).

Pedestrians are also observed being careless, like the drivers. The interviewees agree that most pedestrians, especially those who are the city's dwellers, are not seen respecting traffic rules and, hence are facing the risk (W.Z., 17/04/09 and A.T., 21/04/09).

People coming from countryside are much better than the city dwellers as far as a respecting traffic rule is concerned. The city dwellers believe they know everything, and are usually too careless. And so, they are much vulnerable to accidents. Rural people, even without a good knowledge of road use, are much careful. They look to their right and left, for example, when crossing the road. They do worry very much. They may even ask other people or traffic police for help, (W.Z., 17/04/09).

Traffic rules violation by pedestrians was a common scene the researcher experienced during observation sessions. The commonest violations observed were not using sidewalks (pedestrians' platform) or not taking the side that allows a good view of cars coming from front when there is no pedestrians' platform and crossing streets at prohibited areas like at junctions, roundabouts/squares and traffic lights (when they do not allow pedestrians to cross). Asked why pedestrians do so, their responses are mostly not convincing. For example a pedestrian found crossing the road at the wrong place said:

I don't think I should necessarily use the markings, because in our country they [the markings] are not offering the purpose they were meant to. I don't know why they are there. Who respects them? No one. Especially taxi drivers, they never let you cross; you could stay there standing for an hour. Therefore,

I cross the road anywhere I find a room, of course, checking whether cars are coming, (N.U., 16/05/09).

In conclusion, both drivers and pedestrians are considered responsible for the prevalence of accidents though the majority of the interviewees seem to agree that drivers are more responsible than pedestrians.

However, apart from carelessness, there are quite a lot of other external factors that hinder pedestrians from respecting the traffic rules, with which most informants would agree. These are people who block pedestrians' path for their personal businesses, or governmental or non governmental organizations which mostly damage the paths for infrastructure expansion but not repair them very well or even leave them as they are for a long period of time, (N.A., 27/04/09; M.A., 18/04/09; W.Z., 17/04/09; M.O., 22/04/09; A.T., 21/04/09).

#### **4.3.2.3 Efforts to curb the problem**

Interviewees from the experts group all believe that road accidents are preventable, and mentioned several efforts their respective institutions are making to control the problem. Awareness raising and causing lasting safe road use behavior is what they all intersect at.

For Addis Ababa traffic police, "one of the three responsibilities" they shoulder is developing "the public's knowledge and awareness of road traffic and safety issues," (M.A., 18/04/09). To this effect, among others, they work at schools and other places where people gather:

We have over 20 schools in our Sub-city [*Kirkos*] to work with. We go to each school and teach students there once a week. Again, we give traffic related lessons for people at churches and streets, where many people gather. We also appear at *Idirs'* monthly or annual meetings and give lessons for the members there, (S.M., 17/04/09).

According to an expert from the National Road Safety Coordination Office, Addis Ababa Education Bureau has revised its primary level curriculum and included traffic related lessons in all grades 1-8. As to the Regions, strong committees at the Region, Zone, *Woreda* and *Kebele* level are established. These are working very closely with traffic police and transport agencies that have caused promising change in safe road use, especially in the *Amhara* Region. He said, "Yes the radio programs have lots of input in creating the awareness, but the *Kebele* committees and the area police have the lion's share of contribution in mobilizing their people and in effecting the results," (N.A., 27/04/09).

#### **4.3.2.4 Role of radio programs in awareness creation and causing behavior change**

Radio as a means of disseminating road safety messages is a strategy employed by all parties. Ethiopian Road Safety Authority, Road Transport Agency and Federal Police in general and Addis Ababa Traffic Police in particular have radio as a channel of road safety communication by which they intensively work to raise awareness and cause safe road use behavior. For Addis Ababa Traffic Police, it seems that radio is the most successful means they employed to cause the change.

The radio program is what we believe can address the majority of our people. We use several FM stations. On FM 98.1 and 97.1, we give each day's accident report: the number of the accidents, death, slight and serious injuries; the places, the causes, and the resource damage as calculated in birr. This report is always followed by bits of advice for listeners. As a result, many people today say the damages due to traffic accidents in our city are no less than those due to HIV/AIDS. ... The other one, the main one, is our program at FM 96.3, (M.A. 18/04/09).

Interviewees from the audience group do seem to agree with the role the radio programs play in traffic related information dissemination and awareness creation about safe road use. A.T. is among the regular listener of *Yetraffik Dehininet* radio program. She says:

I could say I have got many things from the program ... many things. I could see how much traffic police and other responsible bodies are working to make road use safe. I also see people's awareness on road safety. I do get the fresh data: how many people died or injured? How much is the resource damage? And more than this, what the causes of the accidents were. ... It is because of the program that I have now in-depth knowledge, I would say, about the severity of the problem, and what safety measures I should take as a pedestrian, (A.T., 21/04/09).

#### **4.3.2.5 Who listens to the RTS programs?**

The RTS programs reach many audiences, according to W.Z. Pedestrians, taxi and other vehicles' drivers, passengers, etc are all in the list of the audience group. As to taxi drivers:

Taxi drivers, at first, used to switch off or tune to other radios whenever they heard the song *Drive Safely* [the program logo]. They were not ready to listen to or take part in our discussions. ... It was, I believe, because they thought our program would insult or nag at them. Gradually, they found out that we do raise their issues, too. Interestingly, today, we have many taxi drivers who not only listen to us but also call us to take part in discussions, parking their cars for a while, (W.Z., 17/04/09).

G.K., a taxi driver, is a frequent listener and an occasional participant of the FM 96.3 *Yetraffic Dehininet* radio program. He says the program is attractive and educative. However, he is not happy with some of the programs' participants:

The program is attractive, but there are some participants who talk about issues unrelated to topics of discussion. There are also people who talk for so long once they get the chance [the line]. They waste the program's time and spoil people's interest to listening to or taking part in discussions. I advise them to be focused and precise, (G.K., 23/04/09).

Another driver compares road safety radio programs of different radio stations and appreciates most that of FM 96.3. He says:

The road safety program that is transmitted at FM 96.3 is far better than other programs of other stations. It's attractive and descriptive. I don't see people using other radios as they do with FM Addis for road safety messages, (S.A., 23/04/09).

As to pedestrians, all seem to agree that they regularly listen to road safety messages and other related information from the radio, almost everyday. An active listener of *Yetrafik Dehininet* radio program says:

I listen to the program frequently. If I am not at home, I use my mobile set to listen to the program; I don't want to miss it. You see, it has something new every time it is aired. Accident is on the rise, and it is my brothers or sisters, that are being injured severely or killed, everyday. It is a pity, but I need to know the level and cause of each accident, (M.O., 22/04/09).

Audiences say they get RTS messages from almost all FM radios, and if they miss from one, they won't from the other, (M.O., 22/04/09; A.T., 21/04/09; S.T. 19/04/09). A.T. puts it:

I listen to RTS messages everyday. FM 96.3 offers safety lessons in detail, apart from accident reports in the city. ... However, I get traffic information from other stations too, every morning. For example C.S. Assefa Mezgebu [PR of AATP] gives 24 hours' accident reports every morning at FM 98.1 and at FM 97.1. I listen to them all, I mean, if I miss it from one I can get it from the other. So I would never stay the day without listening to traffic information, (A.T., 21/04/09).

#### **4.3.2.6 Contents and format of the program**

Contents that have to be focused on by the radio safety programs arise from, by far, accident data over the previous week or month, according to respondents from the experts' and program producers' group.

We focus on accident causes. For example, what was the cause of the most severe accident over this week? Or what was the main traffic related problem? What was special with drivers' or

pedestrians' road use behavior? These are all sources of our topics, (M.A., 18/04/09).

If, for example, the data on drivers' disappearing after causing accidents increases over the week, then this could be our topic of discussion for the following one or two weeks. We would, through dialogue, explore why drivers try to disappear. But we also focus on the severe consequences they would face as a result of abandoning. We could invite guests from traffic police, the court or other concerned bodies to comment on the issue and give advice from the perspectives of their institutions, (W.Z. 17/04/09).

But this may not always work. At times, therefore, it might be decided just thinking of issues and their probable benefits to the audience. A program producer said the following:

We also think of issues and what benefits they may bring to drivers, to pedestrians, and to the public at large. ... We then discuss them with colleagues at our office and develop them very well. Finally, they are aired and the public finds them interesting and timely. That is why they spend their time and money to call us and air their views. They use this opportunity to share their experiences related to the topics which could give lessons to other listeners, (W.Z. 17/04/09).

A critical listener of the program, S.T., argues against setting discussion agendas just from commonsense or because they are mentioned by audiences. He recommends use of experts:

When selecting topics, they may choose them from their experience, or because somebody raised the issue in today's discussion, they may decide to make that issue topic of discussion for the next day. That may be good, in some aspects. But it won't always be easy, and successful. They need to have communication experts who could design the program and its contents based on grounds, both theoretical and cultural grounds, (S.T., 19/04/09).

The program time is dominantly covered by live discussions between calling audiences and the program producers. Hence it seems that discussion, dialogue, is logically the philosophy the program has adopted:

The very reason for Addis Ababa Traffic Police to join FM 96.3, FM Addis, for our program is ... to make the public aware of the present traffic accidents that cause lots of human and resource damage ... to enable them - the public - discuss what the causes are, whether the factor is human or road or vehicle ... and thereby suggest solutions. It is through dialogue that we could discover where the problem lies: poor road engineering, recklessness on the part of drivers or pedestrians, ineffective enforcement, or anything else, (W.Z., 17/04/09).

A key informant from the AACTCIB, M.A., believes that the dominant format of the program, the discussion, has attracted many listeners. He lists two reasons for people to give them a call for the live discussion:

There are basically two reasons that force people to call. One is the severity of the accidents. When they hear about a terrible accident, many people call and comment on it. The second reason is our presentation style. We always try to be inviting. We try to set agendas that cause public discussions. We raise the issue and let our audiences talk about them. People know the mistakes committed by some drivers, the faults of some pedestrians. Because they are around them, they see them, they know them. They use these faults as examples, discuss them openly, not just to blame, but to give people lessons and correct themselves, (M.A., 18/04/09).

M.O. is one of the regular listeners and participants of the RTS program's discussions. It seems that he is in perfect agreement with the above claim. As to why he listens to and takes part in the discussions, he said:

I've been listening to the program since its beginning. The presentation is good. It's attractive. It always causes you to listen to it, sharing the pains of victims or their family and the seriousness of the problem overall. It has the power of penetrating into the hearts of its audience. My brothers and sisters have started listening to it. They were not interested in such a program until recently. It is, I think, the severity of the problem and presentation skills of the producers that attracted them to listening to the program, (M.O., 22/04/09).

However another audience, S.T., has a different point of view on most topics chosen and the nature of discussions held at RTS programs:

Discussions are good to cause changes. But most of the discussions in the safety program are, however, to cause us have consensus on the issues raised. Discussion or argument over pedestrians' law is no more than creating consensus. Instead, for example, you may let people who use zebras for crossing streets argue with people who do not. That's a real discussion, an argument that triggers people to bring out their internal beliefs. Gradually, with convincing points from their opponents, these people [those who argued against the claim] may bring about a real change, (S.T., 19/04/09).

#### **4.3.2.7 Change in road use behavior**

Most of the key informants from the experts group believe that there is change, change that could be appreciated. One RTS program producer, for example, says the change that has come as a result of the efforts they exerted is far better than changes due to enforcement used for decades:

I believe change could come through education. Penalizing would result in nothing; we've done that beginning from 10 birr decades ago up to 140 to 200 birr today. The change as a result of charging is quite insignificant. However, through education, we have brought many changes, (W.Z. 17/04/09).

As to creating awareness in the public about road safety, it is true that almost all the interviewees agree they themselves and the public at large have become aware of the city's road safety problem and the urgent need to control it. One informant said: "On the topics we raised and discussed using this program, yes, we have brought change," (M.A., 18/04/09).

Especially on pedestrians' use of zebra markings to cross streets and on drivers' tendency of giving priority for pedestrians at zebra markings, quite a lot of the informants say that there is positive change, which, they say, is a recent success they have gained due to

the radio programs' efforts. Moreover in relation to the report on accidents they give every morning, W.Z. said:

We are successful in causing accident figures decrease. The reason is ... first, we provide the public with the data of every [recorded] accident over the past 24 hours. We explain the causes and places of the accidents. People penalized in connection, if any, are also declared. This is the truth, the fact. And when you tell the truth, everyone will definitely listen to you. Those who listen to the fact will obviously be cautious of themselves. We are making them aware of accidents they might face; as a result, they use roads carefully, (W.Z., 17/04/09).

The other evidence program producers cite for the change they claim they have caused is what their colleagues, traffic police working at fields, in the street, say about how drivers and pedestrians are using the road, (M.A., 18/04/09; W.Z., 17/04/09). The later puts it as:

When we ask [live] traffic police at different sites of the city to describe drivers' and pedestrians' road use behavior, they all say: Pedestrians are using zebras when crossing ... but *some* do not. ... Drivers are giving priority to pedestrians, but *a few* others do not. They usually say ... *some....* or ...*a few....*. That means, logically, the majority are on good track, (W.Z., 17/04/09).

However, whenever suspicion about whether there is observable change is achieved is reflected, other means of convincing is used:

We believe we have caused promising changes on road use behavior of drivers, passengers and pedestrians. It can't happen all at once. Take the case of HIV/AIDS; it is after 17 or 18 years' effort that changes are seen today. We are just beginners, only two or three years old, (W.Z. 17/04/09).

Of course, compared to what is claimed, the real changes observed in the streets are quite insignificant. When they are asked about the level of road related problems, many people would tell it is pervasive. They would also explain what has to be done in order to lessen the problem. They know very well about causes of accidents and preventive

measures that have to be taken. If asked whether they themselves do what they explained, most of them would say they perform them perfectly. Whether they really do what they say could only be testified in the street, when they travel, as pedestrians or drivers.

What was witnessed during the field observation was that the majority of pedestrians do not cross roads at zebra markings. These people, when asked whether they respect traffic rules, they say they always do. But when they are told they were not crossing at the marks, they won't deny. Instead they would search for reasons: Oh, I was in a hurry now ... I was thinking of something today ... I have an appointment I shouldn't miss ... It was because the road was empty ... It was because I saw the cars held up by traffic lights over there ... most of the responses couldn't be convincing because they do not fit to the reality there.

N. A. was among the pedestrians who were observed crossing the road at the wrong place in the *Kasanchis* area. He said that he has road safety knowledge that he has got from a variety of sources. However, he said he frequently violates traffic rules. Asked why, he admitted that it is his fault and said:

Basically I'm a pedestrian, but I have taken road safety lessons when I was at a drivers' training center that I joined to have a driving license. Moreover I listen to safety radio programs, especially *Yetrafik Dehininet* program. I also get such lessons from elderly and educated people. But I do not observe traffic rules when I travel. I simply travel following people in front of me. I don't know why. Maybe because I don't see others respecting traffic rules. Or it may be because I'm totally immersed in myself – thinking about where I'm going, and forgetting that I might face accidents, (N.A., 03/05/09).

Asked why the programs couldn't cause the claimed change, N.A. says that it is because of lack of enforcement system:

Traffic controlling system in our country is very poor. It is not educative, or selective. It doesn't focus on causes of accidents and places of accidents. There is wastage of time and resources - trying to control everything. We couldn't have enough traffic police; therefore, if we need to use what we have efficiently, and if we want to see changes, then we have to focus on accident causes and accident places, (N.A., 27/04/09).

Another interviewee, an audience, believes the approach the media employ could not cause practical behavior change, except causing people develop positive attitude toward safe road use.

The basic reason for media effort not to bring change in behavior is due to the fact that traffic by itself is concept related to movement, and what should have been made in relation to movement – traffic - was something practical, not just awareness creation, or knowledge. You couldn't live it just because you're given bunch of information, (S.T., 19/04/09).

S.T. continues to suggest what should have been made:

Because traffic is related with movement, it is skill. In order to develop the skill of safe road use, you have to design on rules and orders. You need to teach him there, in the streets, practically. In order to teach him about using zebra crossings, you need to influence him to cross at zebra crossings, of course taking care not to create a negative attitude. Your influence, of course, shouldn't be all the time. It is enough if it lasts only until the person internalizes it. Once habit is formed, it would be very difficult to break it. For example, go to the National Theatre area and charge [penalize] 0.25 cents those who violate crossing streets at zebra markings. Through the media, you have already given the knowledge of crossing roads at zebras. Now you are charging those who do not respect crossing at zebras. Then the skill develops because everybody exercises respecting the rules practically - there in the streets, (S.T., 19/04/09).

Another interviewee, A.T., also strongly believes in the necessity of penalizing pedestrians who violate the traffic rules and contribute to accident incidents. She said:

There is a lot to do on pedestrians. Lots of safety lessons are provided but I don't think the change observed by pedestrians is in proportion with the efforts. So I recommend penalizing pedestrians who violate the rules. If you penalize those who violate the rules, road use behavior could improve. It is laziness

on the part of pedestrians that I observe. Laziness, so, needs punishment, (A.T. 21/04/09).

This may be compared with what an expert from the ERSA, N.A., called 'educative control'. He mentioned the experience of traffic police in the *Amhara* Region:

Let's take what traffic police do with the rural people as an example. They show them - the rural pedestrians - which is their line and let them go that way. If they find them on the wrong side, they do not keep them there. They tell them to correct, you see, they are both educating and controlling. After a while, the pedestrians themselves would say this is my way and they would take it permanently. This is what has to be done here in the city, too. If there are people who refuse the lessons and instructions given, then you could go to punishment. But what I'm saying is educative control by itself yields promising results than what punishment does, (N.A., 27/04/09).

Another interviewee prefers to stress on school children for lasting safe road use behavior. He also believes in children's positive influence on road use of adults. So, to him, road safety lesson as a separate subject is a necessity:

Lessons have to be given in more details. Schools should also be used extensively. I think it would be of necessity to give road safety lessons as a separate subject; that is more profitable. Look, music and other subjects that are not as such critical are given as subjects. Why not road safety? If it is given beginning from kindergarten, the new generation will better know safety rules and apply them. Because of the children, adults could also change since they feel embarrassed when kids comment on their faults or tell them about safe road use, (S.A., 23/04/09).

#### **4.3.2.8 Program appraisal**

The FM 96.3 RTS radio program producers admit that they have not made any formal program evaluation so far. But they say they have different ways of looking into their programs, indirectly. One is from the feedback they get from their audiences. Most of the frequent

participants in the live discussion of the program, of course, boldly tell them the program is excellent. However, complaints are also there:

The program needs to have a focus; things have to be treated bit by bit. This is what the program lacks. A day's discussion may, for example, begin with vehicles' technical fitness, but soon people would divert to talking about what pedestrians should do or something different. This would never keep us concentrated. So discussions should focus on one point, to the finish, before another is raised. But care should also be taken that it won't be boring, (S.A., 23/04/09).

With regards to program airtime, interviewees were asked what they have to say, and their responses were found to be a bit uniform. Most agree that the morning programs are appropriate, but suggest that there should also be other programs at other times of the day.

Of course, the airtime we use now is the most appropriate. Since many people are on the move every morning, to their work places or schools, if midi buses, *Anbessa* City Buses and other public transport providers tune to us, these people could listen to our program. Others may listen to us at home relaxed, or getting ready for work or school, in a hurry. But we also need these people to listen to us being relaxed, at tea breaks, lunch time or in the evening. We're planning for that, (W.Z., 17/04/09).

However, several respondents doubt if the RTS programs' airtime is really convenient to most pedestrians in the city, and the chance of the program airtime to be remembered by public transport drivers so that it could be listened by passengers. G.K. says:

I don't think the program time is appropriate for most of us. The time is when many people are in a hurry to leave home or when they are rushing to work. They may also be in the streets for long, waiting for public transport. ... How many of us [drivers] do you think remember the airtime and switch to it so that we and our passengers could listen to it? ... Moreover, if you take me, *Sheger's* [FM 102.4] morning narrations do always tempt and even sometimes hinder me from listening to the RTS messages transmitted by FM 96.3 and FM 97.1, (G.K., 23/04/09).

S.T., an audience interviewee, has raised the issue of appropriateness of the program's contents to the cultural values of the audience. He argues the program should base and arise from the social and cultural values of its specific audiences in order to be accepted positively:

When focusing on skills, it should be done in accordance with the society's custom, the people's way of life. Otherwise there would obviously be resistance. In our country, we do have a number of interesting rules and regulations. However, because they are not geared with the culture of the society, they are like oil and water. Unless the public finds it compatible with its culture, it is unlikely that it would respect it. If at all it respects, it is only when you are there. In your absence, everybody would go back to their real self. For example, today having a walk in the evening has become part of our culture. So is going to *Sodere* or *Langano* for vacation over the weekend, or staying outside late in the evening, drinking or dancing at nightclubs. All these are related with traffic. When you need to bring the issue of traffic into the culture of the society, therefore, you should be careful not to contradict with it. You cannot be successful if you say don't have evening walk or drink or dance to be safe from road accidents. But you can be successful if you work to make their movement safe from traffic accidents while they are having the picnic, or the walk or the dance, (S.T., 19/04/09).

#### **4.3.2.9 Future plan**

The radio programs' producers say they are planning to strengthen their work and cause many people have the necessary knowledge and information about road safety that the public could use.

On top of the live transmissions, we're planning to produce programs that bring people from different sectors: Road Transport, Telecommunications, Water and Sewerage Authority, Traffic Police ... and let them discuss issues related to what their roles should be in relation to safe road use, in detail and critically.

If you make the presentation dramatic, if you design it based on real/true stories, for example going to the family of a traffic accident victim (may be deceased) and prepare programs there, beginning: we're at Mr. X's house today, a family that lost their younger daughter due to a car accident yesterday..., you can imagine what the reaction could be. There are lots of ways, (W.Z., 17/04/09).

The Addis Ababa RTS radio programs production team believes that there were a number of things they should have done, but because of deficiencies of human and material resource and commitment from other responsible bodies, their efforts have become incomplete.

We believe we have to work hard, but we are human beings, with lots of limitations. We need support, but we are supposed to engage in other office works too, apart from the radio programs. We're thinking of supporting our radio program with print materials: brochures and newspapers. That needs resource. We need our topic be the public's topic, for which everybody cares and about which everybody talks. ... At churches, for example, it is only when we are there that Father gives safety lessons. Why not he reminds his followers of traffic safety issues at other times, whenever he closes the day's prayer? We need to ask him. The same is true for the Sheik, or for the school teachers or Directors. ... We need our case be taken by popular personalities: political leaders, athletes, artists and the like, (W.Z., 17/04/09).

#### **4.4 Conclusion**

This chapter began treating the physical setting of the study area, *Kirkos* Sub-city. It was discussed that the Sub-city is at the heart of the City and is crossed by the main routes of the city. It is also discussed that it is the area where the majority of recorded car accidents occur. Data collected quantitatively and qualitatively from this area are analyzed, beginning with the presentation, description and analysis of the quantitative. Then the qualitative data followed, and are analyzed them in a way that gives meaning to the quantitative data. Further discussion on the major findings is turned to rightly in Chapter Five.

## **Chapter Five**

### **Discussion of Findings**

#### **Introduction**

In Chapter Four, data gathered quantitatively and qualitatively have been analyzed. In this chapter, major findings are presented and further discussed. Unlike what was done in the former chapter, the findings from the analysis of the quantitative data and the qualitative data are now treated together. Moreover, supportive literature pertinent to the research objective, especially communication theories and strategies reviewed in Chapter Two, are used to develop and give deeper meaning to the analysis.

#### **5.1 Recognition of problem prevalence and preventive strategies**

It was understood from the survey that respondents are aware of the prevalence of traffic injury in the capital. The main contents of the RTS radio programs that almost all respondents heard are *news about road traffic casualties and resource damages, and lessons and pieces of advice for pedestrians and drivers about safe road use*. In-depth interviewees do also discussed the severity of road traffic related problems in the metropolitan in general and in *Kirkos* Sub-city in particular. Preventive and safety strategies under implementation by all parties imply that these institutions have considered traffic injury as a preventable cause of death and injury. Interviews with both the expert and audience groups have also confirmed that.

Accordingly, it seems that arguments made by Sleet, Dinh-Zarr, & Dellinger on applying “public health practices of protecting and

improving of communities' health through education, promotion of healthy lifestyles, research on disease control, health promotion, and injury prevention" (Sleet, Dinh-Zarr, & Dellinger, 2007) in road traffic safety programs have been acknowledged. Interventions considered part of the health promotion approach include: economic interventions, organizational interventions, policy interventions, environmental supports, and health education interventions, including the use of media, school and community education and public awareness programs (Howat, et al. 2004, cited in Sleet, Dinh-Zarr, & Dellinger, 2007).

"One of the three responsibilities" of AACTCIB, as it was discussed by an officer, is developing "the public's knowledge and awareness of road traffic and safety issues," (M.A. 18/04/09). The National Road Safety Authority, on its part, works on road safety engineering, researches on causes of accidents and how they could be tackled, and raises the public's awareness on safe road use, among others.

However, it is found out that none of these concerned bodies have based their efforts of awareness rising of safe road use among the public appropriate communication grounds. Some of their practices seem to have elements of BCC theories, but it is mostly tradition and commonsense than theoretical basis that have been directing the approach they employ for their programs.

Several theoretical approaches could have been utilized. Social marketing theory is the most frequently recommended one, as its very essence is influencing behavior, i.e., "the voluntary behavior of target audiences to improve their personal welfare and that of the society of which they are part," (Andreasen, in Waisbord 2000:07). This is done,

by far, through persuasion. Of course, *Yetrafik Dehninet* radio program seems to have been employing this strategy. The frequent appeal the program producers make seems to have its own impact on audiences.

Sparks (2002), as it is discussed in Chapter Two, asserts that persuasive health campaigns using the mass media have effect on individual behavior. Two important factors that contribute to change of attitude and behavior, as it has been discussed, are source credibility and messages' simplicity and repetition. As to source credibility, it was found out both from the quantitative and the qualitative data that the fact that traffic police is the host and source of the majority of RTS messages is most accepted. Unlike other programs hosted by others, it is the program by AACTCIB (the FM 96.3 *Yetirafik Dehninet* RTS program) that is most favored. Apart from the audiences, one of the producers strengthened the fact that they are credible sources of information when he said:

First, we provide the public with the data of every [recorded] accident over the past 24 hours. We explain the causes and places of these accidents. People penalized in connection, if any, are also declared. This is the truth, the fact. And when you tell the truth, everyone will definitely listen to you. Those who listen to the fact will obviously be cautious of themselves, (W.Z., 17/04/09).

However, it doesn't mean that the credibility of the source is always free from criticism. In connection to this, one of the interviewees has touched tacitly upon the necessity and advantage of positive image traffic police should have in the minds of the public when he said:

What kind of image do traffic police have in the drivers' community or the pedestrians' community? What are the causes of having such negative/positive image by these groups? And how could such an image be changed/strengthened? They should study such matters, (S.T., 19/04/09).

Simplicity and repetition are other qualities of *Yetirafik Dehninet* radio program. As it was put in the content analysis, a topic is treated for two to five program days, with many ideas repeatedly raised and discussed by many participants. Moreover, it was found out from the quantitative survey that respondents have several reasons to prefer this program. The top three are related with simplicity, and they are that it uses the music Drive Safely (a song with simple and easy to understand message) as its logo, that it is live and interactive, and that messages are easy to understand.

Sparks adds that messages should also have some elements of fear, guilt and humor appeals, (Sparks, 2002:142-144). The first, fear, is well addressed by the program. A respondent said he would never feel secured in the streets until he returns back home at night, (M.O., 22/04/09). The fact that at least one person dies and several others are badly or slightly injured everyday is reported everyday and most respondents said this worries them. That the program has not included some elements of "fun common among the traffic police and taxi drivers" and that it does not have "lessons designed in the form of dramas," entertainment-education, were among the comments of interviewees, (A.T. 21/04/09; M.O., 22/04/09). Hence, guilt and humor are aspects that need future focus.

Another preventive strategy, which interviewees from the experts and audiences group recommended is the use of law enforcement. Research has shown a decrease in the number of fatalities and damage due to the use of severe law enforcement, as it has been discussed in Chapter Two. "However, it has to be selective to be most effective. It must be selective as to time, place and type of traffic violation." To use the expert's words, the traffic controlling system has

to focus on, "accident causes and accident places," (N.A., 27/04/09). It should also be exercised just to educate, not to punish. It also needs to be exercised regularly.

## **5.2 Safety communication approaches being employed**

It has been discussed in Chapter Two that the two basic approaches to communicating development messages are interpersonal approach and mass media approach. As each has its own strengths and weaknesses, it is argued that best results could be achieved through integration of the two approaches, an approach that combines the interpersonal approach and mass media approach and links the combination with traditional channels and modes of communication (Moemeka, 1994:55). Communication approaches being employed for road safety by the responsible bodies seem to recognize this strength.

AACTCIB, the host of *Yetirafik Dehininet* RTS radio program, utilizes both of the approaches. One of the interviewees, said:

Media is one means. We prepare traffic related lessons and information and disseminate them through TV, radio or newspapers. Schools are other means, our main teaching center. We also work awareness creation at places where people gather: market places, squares, religious centers, exhibition sites, etc, (M.A., 18/04/09).

With regards to media use, it is not only AACTCIB but other institutions working on road safety are trying to use the media efficiently. By now, almost all radio and television stations in the capital have RTS messages they air, some run the programs themselves and others work with road/traffic safety institutions. According to findings from the quantitative survey, all respondents say they get RTS messages from the media, and it is radio which is the respondents' most preferred medium for these messages. Moreover,

the pervasiveness of radio ownership and the fact that most of the target audiences listen to the radio for extended period of time both imply that the decision to use radio as a strategy to disseminating RTS messages than other mediums is the wisest.

Moreover, according to accumulation theory of media's long-range influence on social and cultural change, the continuous presentation of information over an extended period of time does have its own contribution to causing change. The time since *Yetrafik Dehninet* and other RTS messages started dissemination is of course very short; it is not more than three years since all the FM radios and the TV stations begin airing the issue.

Interpersonal communication is what has been recommended to work with the media. Accordingly, the work AACTCIB has done at schools seems to have resulted in promising success. One of the interviewees from *Kirkos* Sub-city said that they have about 20 schools in the sub-city where they go once a week to give safety lessons for the student population. Due to the relentless efforts of trained student police at each school, he added, traffic accidents around schools have completely been controlled, (WS, 17/04/09). The fact that traffic safety lessons are included in the primary level (grades 1-8) curriculum could also have its own contribution.

The more road traffic safety is topic of discussion among the community (families, friends and colleagues) the more it is likely that people have influences of one over the other. If such information is taken from the media through two-step-flow, opinion sharing, and social norms and influence, obviously there would be a better chance of being taken as a public issue.

On the other hand, others like religious leaders and government authorities were heard by only 14% and 10% of the respondents, respectively. The implication here is that religious leaders and government authorities have not yet found RTS issue a big concern, and so such topics have not yet come as their immediate agenda. It might also be for this reason that these influential segments of the public do not raise safety issues in public gatherings for discussion and thereby solutions for curbing the problem. Again, this emanates from the fact that road traffic injuries have not yet been well understood and considered as public health problems by these groups. Communication experts themselves seem to have lack of understanding as to how such a problem be addressed, for had it been the case, they could have employed public health approach, among others, through persuading "policy-makers and decision-makers of the necessity to address injuries in general as a major issue, and of the importance of adopting improved approaches to road traffic safety" (WHO, 2004).

What is more interesting is that about half of the respondents had never experienced traffic police telling/teaching pedestrians about safe road use. Even of those who experienced traffic police training pedestrians, the majority said it was rarely that they observed police doing so. Traffic police who spend most of their work time in the street, however, could have exploited the advantage that interpersonal communication could offer to influence pedestrians' road use behavior. What traffic police would say is actually different. They said they have been addressing none-school segment of the population at market places, squares, religious and other gathering centers (like Idir and Iqub). The fact that results observed are unsatisfactory may lead to accepting what the formers said.

### **5.3 RTS messages: reach, content, design, repetition**

Overall, RTS messages being broadcast seem to be reaching the majority of the target audience. Respondents have also been found remembering the most frequently addressed issues by the radio programs: *road traffic casualties and resource damages*, and *lessons and pieces of advice for pedestrians and drivers about safe road use*. Therefore, it is possible to say that the media have set the agenda.

Discussion on RTS problems, their causes and solutions is a format dominantly adopted by AACTCIB RTS program. As it has been found out from the analysis of its program contents, the majority (about 75%) of each day's airtime is devoted for this purpose, and on average six to nine callers from Addis Ababa and around air their views mostly on the topics raised for the day's discussion.

While most of the themes participants raise are about the problems created by reckless drivers and pedestrians, they might sometimes even go to the extent of exerting pressure on decision makers to cause them enact laws on some road safety related issues. Here two cases could be raised as examples from the analyzed programs' contents over the past six months.

One was on the theme of whether it is necessary to penalize traffic rules violating pedestrians. Very hot arguments were held being for or against the claim, and on whether teaching/training or punishing that should come first. Discussants have gone to the extent of asking responsible bodies enact some kind of enforcement on such people. The other was on the necessity of strong enforcement that facilitates the use of pedestrians' path just by pedestrians. The fact that the

sidewalks are highly crowded by illegal street sellers, beggars, and other personal properties like building materials (sand and stone) for constructions underway have been discussed as hindrances to safe road use and as factors risking pedestrians' safety.

Media advocacy, of course, seems to have acted in both of these cases. Audiences are trying to exert pressure on policy-makers and decision-makers so that they give appropriate response to what the problem demands. More than that, however, UN's general assembly resolution on communication for development that stresses the need to "support two-way communication systems that enable dialogue and that allow communities to speak out, express their aspirations and concerns and participate in the decisions that relate to their development" (UN General Assembly Resolution 51/172: 2005) seems to have been exercised.

All respondents remember listening to measures that have to be taken in response to the most frequent road accident causes. These safety measures are among the points that have been raised for discussion now and again, even when the theme for the day's discussion is different. These are: observing speed limits, not driving when drunk, driving keeping one's distance from other cars in front/behind, giving priority for pedestrians, respecting traffic lights and other road signs, using seat belts, taking a good care of vehicles before and while driving, using zebras when crossing roads, taking the right side and/or pedestrians' platform and using bridges when crossing highways (*Kelebet Menged*).

The problem is, however, on the way topics are treated. There are several cases observed during the analysis of the aired programs when

participants deviate from the given theme of discussion. Deviating from the topic of discussion or from the program's objective as a whole is perceived incident by the audiences themselves. One of them has put it this way:

You may listen to people who talk about ideas which are not related to the day's topic of discussion. As if the program touches upon every aspect of the city, there are others who would like to talk about irrelevant issues to the program - traffic safety (A.T., 21/04/09).

There are mainly three grounds on which program producers base themselves when they select topics of discussion, as it has been found out from the data analysis. These are recent data on repeatedly recorded accidents and their causes, what the program producers themselves thought to be of benefit for the audiences (pedestrians and drivers), and what participants raised and suggested as would-be-topics of discussions (M.A. 18/04/09; W.Z., 18/04/09). Such a strategy of topic selection may have some advantages to offer. However, it should have been by far better to ground the selection of topics on appropriate grounds, like the data, and with a pattern that shows some kind of flow, 'bit by bit', in a way that enables audiences have a focus. It should not be against the need for repetition, but it should not also cause over repetition. The problem, as it was mentioned earlier is the fact that the programs have not been designed based on any communication theories.

The other most frequently employed strategy by the producers of *Yetrafik Dehninet* radio program is the use of accident cases as sources of lessons. Obviously, everyday there are accidents that cause death of a person, on average, and injury on several others. These are taken as opportunities to giving lessons to audiences. Such an

approach, said one of the interviewees, "...always causes you to listen to it sharing the pains of the victims or their families and the seriousness of the problem overall. It has the power of penetrating into the hearts of its audience," (M.O. 22/04/09).

A communication officer of AATP has also said that these incidents – accident cases - are among the factors that force audiences to give calls. He said, "One [of the reasons] is the severity of the accidents. When they hear about a terrible accident, many people give call and comment on it," (M.A., 18/04/09). But excessive use of such accidents as sources of lessons to change people's road use behavior could also have a negative impact. One of the respondents said:

It is always true that incidents like traffic accidents have impacts on human being's thinking. But mostly, unless these incidents happened upon ourselves or on people very intimate to us, it is possible that we forget them easily. So the effect won't be lasting, it is temporary. ... Moreover care should also be taken when using such things as strategies to causing change people's behavior. Because, the more frequently you hear about something like accidents, the more probable that you would also be familiar with the problem. That may gradually cause you not to take the problem seriously. So it is necessary to consider the negative aspect, too (S.T., 19/04/09).

This probably agrees with what WHO has discussed traditional views as hindrances from considering injury as public health. It says, "One reason for the historical neglect of "injury" in public health is the traditional view of accidents and injuries as random events that happen to others" (WHO, 2004:6).

Social marketing theory asserts the need to focus on the cultural values of the target community when messages are designed. It further calls for the need to researching the audience: their way of life, belief system, world outlook, needs and interests, etc. With this

regard, as it has been said before, the program designers have gaps. It is found out that no theoretical base has been used in the program design. In addition, their programs have not been formally evaluated. Program producers are convinced with the comments about the positive effect of the programs that they get from participating audiences and traffic police working in the field. But this could never be taken as reliable information.

One of the respondents from the audience group has stressed the need to design programs "in accordance with the society's custom, the people's way of life," (S.T., 19/04/09). Evening walk, drinking and staying at nightclubs, having a picnic out of Addis Ababa on weekends are some of the emerging cultural traits of the public, as he said. These are all related with traffic and need consideration when programs are designed. Social institutions (like religion centers) and governmental institutions (like *Kebeles*) are areas which are not well exploited for the purpose – safety communication – according to findings from the quantitative data.

Evidences collected from the qualitative data revealed that the most responsible causes of accidents are drivers; they mostly cause accidents due to their careless driving. Therefore, it seems plausible to focus on this segment of the society in order to cause them change their driving habits. Social marketing recommends use of audience segmentation as a strategy to addressing certain sub-audiences to convey a special message for them.

RTS transmission time is the other area that deserves due consideration. Many audiences have reservations with the morning session. Interviewees have also made it clear that airtime other than

the morning ones is necessary to give chance for many people to listen to and/or take part in the discussions.

#### **5.4 RTS awareness and behavior change**

As it has been discussed elsewhere, most of the surveyed, interviewed and observed subjects said they have road traffic safety knowledge. They said they know very well about causes of accidents, and what measures have to be taken in order to control the problem.

This awareness has been a result of the concerted efforts of the responsible and other interested bodies. As it has been discussed, almost all FM radios have road traffic issues that they cover, though the degree may vary. It has been found out from the survey that 88% of respondents who listen to the AACTCIB *Yetrafik Dehininet* radio program said it has given them the necessary RTS knowledge. Almost all informants from the audience group and those interviewed during the observation session have also confirmed this fact. However, no significant actual safe road use behavior is observed.

Obviously, the majority of knowledge respondents gained about RTS has come from the media, especially from the radio, though school, general knowledge and other readings may have some to contribute. The strength of the media, as it has been discussed, is on raising awareness within the population, and that they are generally not able to change people's attitudes (Moemeka, 1994:64). It has also been stressed that media are strong mostly on disseminating knowledge and information for large number of audience at a very short period of time, and are not that much effective in causing people change their behavior. As a result, it has been recommended to employ interpersonal communication too.

The National Road Safety Authority seems to have gone further in the use of interpersonal communication, but it is limited to only some of the Regions. According to one expert from the Authority, they have established Road Safety Committees at a Region, Zone, *Woreda* and *Kebele* level. Community policing is a recent movement in the regions among the public. This body works, among others, on road safety of the rural people. Traffic police and transport agencies are also working together. The concerted efforts of all these have resulted in promising change in safe road use, especially in the *Amhara* Region. He said:

Yes the radio programs have lots of input in creating the awareness, but the *Kebele* committees and the area police have the lion's share of contribution in mobilizing their people and in effecting the results, (N.A., 27/04/09).

However, as it has been discussed earlier, interpersonal communication is the area where little (almost no) work is done, especially in the streets of Addis Ababa where a lot of pedestrians and drivers are available. The failure of behavior change in safe road use by a significant number of pedestrians and drivers in the study area could, therefore, be attributed, among others, to the failure in integrating interpersonal communication approach with the mediated approach. In connection, discussion points need to go beyond the limits of the radio programs' boundaries, to the public at large, and this is another area the programs lack. One of the respondents S.T. has put it this way:

Community dialogue/discussion is an advantage to effecting lasting behavior change. In order to cause strong and continuous interpersonal communication on road safety issues, topics that cause public argument/discussion need to be designed [by the radio program producers], (S.T., 19/04/09).

The other reason to failing in effecting positive road use behavior is lack of enforcement system. The need to have "educative control" and

that the focus of the radio programs be on skills than knowledge, and that positive influence is necessary are among what have been raised as solutions. S.T. goes on:

Now, what should be done? It's the skill that has to be focused on. If you want to develop a person's skill, you need to focus on rules and order. A person to whom you told about how to drive a car would never drive safe whatever amount of information you gave him. Because driving is not just a question of knowledge; it is by far a question of skill. So also is the traffic case (T.S., 19/04/09).

It has also been found out that there are other contributory factors that hinder pedestrians and drivers from respecting road traffic safety rules. Three top reasons have been discovered from the quantitative survey. Lack of adequate road infrastructure was the main obstacle.

One of the interviewees has also discussed this push factors as:

There must be comfortable platform for pedestrians. New roads under construction or those under rehabilitation in Addis have no problem with this regard; they have enough and comfortable sidewalks. The problem is they are not protected. It is common to see them fenced by individuals who have some kind of construction around. They could also be blocked by waste or other building materials. Or sometimes they might be dug for some infrastructure expansion and kept as they are for long, or if repaired they won't be of the same quality they had had before. They could also be business centers for street sellers. All of these push pedestrians to the roads (N.A., 27/04/09).

The fact the respondents were not ready to pay a little cost in terms of time, energy, or resource was the second factor that was found to have been affecting a good deal of the respondents. In connection to this, several people who were interviewed after they were observed crossing the road at unmarked places gave reasons of time. Most of them said that they were in a hurry to arrive at the places where they were going. The implication is that they have not yet been convinced to change their road use behavior.

The third important reason that affected about a third of the respondents from applying RTS messages they heard was other people's influence. These people said that since other people do not apply the traffic rules they did not want to be exceptions. A pedestrian who was observed crossing the street at the wrong place around *Olompia* said:

I do not observe traffic rules when I travel. I simply travel following people in front of me. I don't know why. Maybe because I don't see others respecting traffic rules, (N.A., 03/05/09).

Almost two-third of the respondents have admitted that their RTS knowledge is not adequate. It is one thing to air RTS programs, but that could never grantee it is listened to. Three main reasons are found out hindering audiences from listening to RTS messages. The first was finding the RTS programs overlapping with other programs of the audiences' interest. The second reason is also related with interest. Many audiences believe that RTS messages' presentations are unattractive. The third reason is preoccupation; some people assume they know everything very well and that they would find nothing from the messages. These all imply the need to design messages both to entertain and to educate. To this effect, EE has much to offer.

## **5.5 Conclusion**

Overall, in this chapter, findings of the research are discussed in greater detail. The most important findings have been treated under four headings. The first is about the public's understanding of road traffic safety problem prevalence and preventive strategies that could be employed. All parties, responsible bodies and the public have the knowledge of the severity of road accidents. Two preventive strategies

discussed under the scope of this study are the use of education and enforcement, both to raise awareness and cause behavior change. However, it is found out that enforcement is not efficiently used. Second, major safety communication approaches being employed have been examined. The use of media and interpersonal approaches are found out under implementation, but the later is not up to the level expected. As a result, it seems that the outcome of the efforts is limited. The radio RTS messages have also been discussed, mainly their reach, content, design and repetition. While the radio programs' efforts to address the problem are promising, it is understood that these efforts are not designed using appropriate communication theories. Finally, with regards to RTS awareness and behavior change, it has been found out that most of the audiences have the necessary information and knowledge about road traffic safety, but they lack actual positive road use behavior for which almost all the efforts are being exerted.

## **Chapter Six**

### **Conclusion and Recommendations**

#### **6.1 Conclusion**

This research has been conducted with the objective of examining the effect of road traffic safety radio programs and communication strategies the media employ in their preventive programs. To achieve this objective, a general research question was set as: what is the effect of road traffic safety radio programs on behaviors of their audiences. The following questions have specifically been addressed:

- To what extent do radio road traffic safety programs reach their audiences?
- How do audiences make use of the programs? Do they witness any behavior change attributable to the programs?
- What communication strategies do media use in their road traffic safety programs?
- Are the programs inviting to the audience? Do they encourage audiences' involvement?

First literature relevant to the study was reviewed. Three areas have been the focus of the literature: prevalence of road traffic injuries and preventive strategies that could be employed, theories and strategies being employed in health communication elsewhere, and media effects theories - the role of the media in causing behavior change. Next, data appropriate to the research objective were collected. In doing so, both quantitative and qualitative approaches have been employed. This was basically due to the premise held that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach was used alone.

Multi-stage sampling technique was employed. *Kirkos* Sub-city, the study area, was selected for its accident history; it has documented the highest number of accident incidents over the past two years. Out of the eleven *Kebeles* in the Sub-city, two were selected by judgmental sampling; again the ground here is prevalence of road accidents and proximity to main routes. Then four sub-*kebeles* (two from each) were selected based on the same criteria used for the *Kebeles* selection.

Using systematic random sampling, a total of 180 adult households were contacted to fill in the questionnaire face-to-face. Moreover, eight people from the audience group and five from the experts were selected purposively for the in-depth interview. A text analysis of six months' RTS radio programs was also made, basically to find out the contents of the programs and the communication strategies employed. Observation on road use in general and pedestrians' use of zebra crossings in particular was also made. Both the quantitative and qualitative data were analyzed, separately and in combination. Finally, findings from the analysis of the data were further discussed. Attempts were made to relate the discussion with literature documented so far. Consequently, the following conclusions have been drawn.

### **1. On problem prevalence and preventive strategies**

- Both the audiences and the experts have understood that road traffic injury is among the major public health problems. However influential segments of the public, government authorities and social institutions' leaders, seem to have insignificant role in the effort of controlling the problem and in mobilizing the public to this effect.

- Almost all the respondents seem to recognize education and enforcement as effective tools to curbing causes of road traffic fatalities and injuries.
- Considerable efforts are underway by concerned parties to raising awareness of the public to minimize the losses of lives and resources due to road traffic accidents. To this effect, media, especially the radio, is mainly used; interpersonal communication is also being employed, especially at schools and in the regions.
- Use of legal enforcement as a means of controlling road injuries caused by reckless drivers and careless pedestrians has been recommended by both experts and audience group. However, little has been done with this regard, especially in Addis Ababa. As a result the effort of changing road use behavior of the target audience has not shown significant result.
- Social marketing theory has been the most frequently recommended communication strategy to be employed when designing preventive programs of public health problems like road traffic injuries. However, none of the intervention programs are found applying such theories.

## **2. On radio RTS messages being transmitted**

- Radio is the most preferred medium for RTS messages and almost all respondents get RTS messages from the media.
- The pervasiveness of radio ownership and the fact that most of the people listen to the radio for extended period of time both imply that radio is the most effective strategy to disseminating RTS messages than other mediums.

- While FM radios are preferred to MW radios for RTS messages, it is the FM 96.3 *Yetirafik Dehninet* RTS program that is the most favored of all. The top three reasons respondents have to prefer to listen to this program are: it is live and interactive, the music *Drive Safely* that it uses as its logo is attractive and gives lesson, and that the messages are treated in depth and are easy to understand. Overall, the RTS messages of the AACTICD *Yetirafik Dehninet* radio program are found appealing and persuasive for the majority of listeners.

- There are three main reasons that have been found out as hindrances to respondents from listening to RTS messages. The first is finding the RTS programs overlapping with other programs of the listeners' interest. The second reason is respondents' belief that presentations are unattractive. And the last one is respondents' assumption that they know the RTS messages very well and that there is nothing new they would get from the programs.

### **3. On interpersonal communication as a strategy**

- Results reveal that most of the respondents talk about RTS issues with their family members and/or friends. This seems promising as it could be inferred that RTS issues are topics of discussion for the majority of the respondents themselves, their families, friends and colleagues.
- On the other hand, others like religious leaders and government authorities were not heard talking about RTS issues by a significant number of respondents. Accordingly, the chance that such issues are set on agenda and raised in formal public gatherings is very much limited. This is also supported by evidences in the survey and

in-depth interview. Moreover, about half of the respondents had never experienced traffic police telling/teaching pedestrians about safe road use, and although a third had experienced traffic police training pedestrians, it was only rarely.

- Among other factors, therefore, it could be concluded that interpersonal communication that could have strengthened knowledge disseminated to the public though the media is so poor that safe road use behavior, especially in Addis Ababa, doesn't show any promising progress.

#### **4. On awareness of the public about prevalence and preventability of road traffic accidents**

- Most of the respondents are listening to RTS messages from the variety of FM radio stations. They have heard at least about *road traffic casualties and resource damages, and lessons and pieces of advice for pedestrians and drivers about safe road use*. On top of that, *discussion on road traffic safety problems, their causes and solutions* are also heard by about 86% of these respondents.
- All respondents remember listening to measures that have to be taken in response to the most frequent causes of road accident, and the majority of them know what they are very well.
- The music *Ashikerkir Rega Bileh* (Drive Safely), a program logo by *Yetrafik Dehninet* RTS program, has played an influential role in widening audiences' knowledge about causes of road crashes and their preventive strategies. Almost all the respondents said the song comes first to their mind whenever they think of RTS radio programs.

- The radio RTS programs are succeeded in raising the public's awareness of road safety, but there are also other strategies that have been employed to this effect: educating school children at their schools by the police force and mobilizing the rural people by the established committees in the regions are examples.

#### **5. On behavior change of the public – effect of the radio programs**

- Most of the respondents and those observed in the streets claim they have the knowledge and behavior of safe road use which they get mainly from the media. However, the majority of road users' actual behavior has not been found safe. It is found out that the main reason for road accidents in the City is commuters' carelessness. Most pedestrians at least do not observe zebra markings when they cross streets.
- Road use of the rural people (especially in the *Amhara* Region) is claimed to have been improved promisingly. This is attributed to the integrated efforts of the media approach and interpersonal communication approach (traffic police and *Kebele* committees working closely with the pedestrians). As to the City, experts, traffic police and RTS programs producers believe there are changes in some aspects of road use, but this claim is not supported with adequate evidence.
- Three top reasons have been discovered as contributory factors against respecting road traffic safety rules: lack of adequate road infrastructure, respondents' reluctance to paying a little cost in terms of time, energy, or resource, and other people's influence, i.e. the tendency of following the majority who do not respect the rules in order not to be exception.

## 6.2 Recommendations

Based on the findings of the study and the suggestions given by interviewees, the following recommendations are made:

- Road traffic safety intervention programs need to be strengthened, to the extent the issue becomes a chief agenda of the public.
- Road traffic safety communication efforts need to employ different approaches in order for their effects be stronger. Hence social networks, intermediary organizations and media need to work together.
- Road traffic safety communication has to base on appropriate theoretical grounds in order to maximize results. Social marketing theory is the most recommended, although it is not the only one. Formative research in message design and the pre-testing of the materials, audience segmentation and analysis of distribution channels, among others, are what social marketing theory offers. These strategies could be employed for maximizing effect.
- Efforts to curb road traffic safety problems need sufficient and trained human resources. They also need sufficient funding. Responsibility of such a pervasive issue should not be given to one or two institutions. Apart from road safety agencies, ministries of health and transport, universities, and others should work together.

- Road traffic safety intervention efforts, for better efficiency, need to work focusing on:
  - Accident causes and accident areas
  - Intervention of traffic police on pedestrians' road use
  - Pedestrians' sidewalks: availability, accessibility and quality.

### **6.3 Focus for future research**

This study has addressed the topic focusing on only a single Sub-city in Addis Ababa. However it is believed that it could serve as a springboard for one who would like to take the topic of RTS communication for further analysis, both in time and area. This could maximize our understanding of what effects these interventions have caused, and what has to be done accordingly. It is also interesting to see efforts of RTS from the perspective of the audiences' cultural values and belief system, an area this research has not gone into in detail. While several behavior change communication theories are advocated for application in designing RTS messages, their strengths and weaknesses in relation to road safety communication in general and road safety communication in Ethiopia in particular is what has to be investigated, since RTS communication has a bit different nature when compared to other health problems' communication.

## Bibliography

- African Press Agency (APA) (16/04/2008). Untitled article, available at <http://www.apanews.net/apa.php?article60885>. (Retr. on 03/05/08)
- Balnaves, M. & Caputi, P. (2001). *Introduction to quantitative research methods: An investigative approach*. London: Sage.
- Berger, A.A.(1998). *Media Research Techniques*. California: Sage.
- Biagi, S. (1996). *Media impact: An introduction to mass media* (3<sup>rd</sup> ed).California : Wadsworth Publishing Co.
- Binder, S. & Runge, J.W. (2004). *Road safety and public health: A US perspective and the global challenge*. Washington: BMJ Publishing.
- Boyd-Barrette, O. & Newbold, C. (ed.)(1995). *Approaches to media: A reader*. London: Arnold.
- Brannen, J. (2004). Working qualitatively and quantitatively. In C. Seale, G.Gobo, J.F. Gubrium & D. Silverman (eds), *Qualitative research practice*. (2007). London: SAGE.
- Commission for Global Road Safety. (2007). *Make Road Safe: A New Priority for Sustainable Development*. Pub. by the Commission for Global Road Safety.
- Comstock, G. & McCombs, M. (1981). Survey research. In G.H. Stempel III & B. H. Westley (eds). *Research methods in mass communication*. New Jersey: Prentice-Hall, Inc.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2<sup>nd</sup> Ed.). California: Sage.

- Creswell J.W. & Clark, V.L.P. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, California: Sage.
- Deacon, D., Pickering M., Golding, P., & Murdock, G. (1999). *Researching Communications: A practical guide to methods in media and cultural analysis*. London: Arnold.
- DeFleur, M.L. & Dennis, E. E. (1991). *Understanding mass communication* (4th ed.) Boston: Houghton Mifflin Co.
- Dominick, Joseph R. (1999). *The dynamics of mass communication* (6<sup>th</sup> Ed.). Boston: McGraw-Hill.
- Family Health International (FHI), article by Donna Flanagan. (2009). Available at: [http://www.fhi.org/en/HIVAIDS/pub/Archive/articles/AIDS\\_captions/volume3no2/Communication.htm](http://www.fhi.org/en/HIVAIDS/pub/Archive/articles/AIDS_captions/volume3no2/Communication.htm) (Acc. 03/02/09)
- FAO (2005). Communication for Development Roundtable Report: Focus on Sustainable Development, 9<sup>th</sup> United Nations Roundtable on Communication for Development, Rome 6 -9 September 2004.
- Federal Democratic Republic of Ethiopia CSA. (2008) Statistics Abstract.
- Flick, Uwe. (2002). An introduction to qualitative research (2<sup>nd</sup> ed). London: sage.
- Frey, L.R., Botan, C.H., Friedman, P.G., Kreps, G.L. (1991). *Investigating communication: An introduction to research methods*. NJ: Prentice-Hall.
- Gandelsonas, C. (2002). Introduction. In Catalina Gandelsonas (Ed). *Communicating for development: Experience from the urban environment*. London: TDG Publishing, Southampton Row.

- Gandelsonas, C. & Erickson, B. (2002). Barriers and gaps in the communication process. In Catalina Gandelsonas (Ed). *Communicating for Development: Experience from the Urban Environment*. London: ITDG Publishing, Southampton Row.
- Gray-Felder, D. (1999). Communication for social change: A position Paper and Conference Report. (Prep.for Rockefeller Foundation): <http://www.communicationforsocialchange.org/pdf/conferencereport.pdf>. (Accessed 27 July, 2009)
- Griffin, E. (2003). *Communication: A first look at communication theory* (5th ed.). New York: McGraw-Hill.
- Guerrero, J. (2004). A Preview on International Communication from the Asia Pacific Perspective. (Unpublished)
- Gunter, B. (2002). The quantitative research process. In Klaus Bruhn Jensen (ed), *A Handbook of media and communication research: Qualitative and quantitative methodologies*. London: Routledge.
- Hansen, et al. (1998). *Mass communication research methods*.: McMillan
- Jacobs, G. D. & Aeron-Thomas, A. (Undated). A Review of Global Road Accident Fatalities. Internet, available at: [http://www.transportlinks.org/transport\\_links/filearea/publications/pdf](http://www.transportlinks.org/transport_links/filearea/publications/pdf) (Accessed 15 October, 2008).
- Looking at ways of improving traffic safety. Internet, available at: [http://www.csir.co.za/enews/2008oct/be\\_06.html](http://www.csir.co.za/enews/2008oct/be_06.html). (Acce 23 May, 2008)
- Henn, M., Weinstein M. & Foard, N. (2006). *A short introduction to social research*. London: Sage.

- McQuail, D. (2005). *McQuail's mass communication theory* (5<sup>th</sup> Ed). London: Sage.
- Miller, K. (2005). *Communication theories: Perspectives, processes and contexts*. New York: McGraw Hill.
- Moemeka, Andrew A. (editor) (1994). *Communicating for development: A new pan-disciplinary perspective*. New York: State University of New York Press.
- Moyers, B. (1992). Why Are the Media Important? In Biagi, S. Ed. (1996). *Media reader: Perspectives on mass media industries, effects & issues*. California: Wadsworth Publishing.
- Newton, R. (1987). *Whom Should the Media Serve?* In Biagi, S. Ed. (1996). *Media reader: Perspectives on mass media industries, effects & issues*. California: Wadsworth Publishing.
- Oates, C. (2000). *The Use of Focus Groups in Social Science Research*. In Burton D. (Ed), *Research training for social scientists*. New Delhi: SAGE Publications.
- PSA Bibliography: Social Issues Marketing. Available at:  
<http://www.psaresearch.com/bibsocial.html> (Accessed 03/11/08)
- Public Library of Science (2007, June 27). Road Traffic Injury Is An Escalating Burden In Africa. *ScienceDaily*. Internet, available at:  
<http://www.sciencedaily.com/releases/2007/06/070626151407.htm>  
(Accessed December 4, 2008).
- Poindexter, P.M. & McCombs M.E. (2000). *Research in mass communication: A Practical Guide*. Boston: Bedford/St. Martin's.

Rogers, Everett M. (2003). *Diffusion of innovations*, (5th ed.). New York: Free Press.

Road Safety. Retrieved in august, 2009. Internet, available at:  
<http://www.worldbank.org/transport/roads/safety.htm> .  
(Accessed 16 October, 2009).

Serveas, J. (1999). *Communication for development: One world, multiple cultures*. New Jersey: Hampton Press, Inc.

Severin, W.J. & Tankard, Jr. J. W. (1979) *Communication theories: Origins, Methods, Uses*. New York: Hastings House.

Sleet, D. A., Dinh-Zarr, T.B. and Dellinger, A.M. (2007). *Traffic safety in the context of public health and medicine*.

Smith, K. (VSO). (2008). *Survey of Pedestrian Crossings in Addis Ababa*, National Road Safety Authority. Unpublished.

Social Marketing and Health Communications. Available at:  
<http://preventiontraining.samhsa.gov/THEORY/communications.htm>  
(Accessed December 03, 2008.)

Sparks, Glenn G. 2002. *Media Effects Research: A Basic Overview*.  
Wadsworth Group: Toronto, Canada

Strauss A. & Corbin, J. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*.  
Thousand Oaks, California: Sage.

United Nations General Assembly, A/58/228. *Global road safety crisis*.  
(2003). Available at: <http://www.un.org/documents>. (Access 10  
January, 2009).

- United Nations General Assembly, A/62/257. Improving global road safety. (2007). Available at: <http://www.un.org/documents>. (Accessed 10 January. 2009).
- Venter, P.R. (2000). Traffic Safety Education and Campaign: South African Transport Conference. Available at: <http://www.arrivealive.o.za/TrafficE.aspx>. (Acce 10/01/09)
- Waisbord, S. (2000). Family Tree of Theories, Methodologies and Strategies in Development Communication (Prepared for the Rockefeller Foundation). Available at:<http://www.communicationfor-socialchange.org/pdf/familytree.pdf>. (Accessed 19 April 2008.)
- Watson, J. (2003). Media Communication: An Introduction to Theory and Processes. (2<sup>nd</sup> Ed.). New York: Palgrave.
- WHO (2005). Bulletin of the World Health Organization: Human resources for the control of road traffic injury. Geneva, Switzerland
- WHO (2008). MAKE ROADS SAFE, Campaign for Global Road Safety. Internet, available at: [www.makeroadssafe.org](http://www.makeroadssafe.org). (Acces 03/08/08.)
- WHO (2004). World report on road traffic injury prevention. Edited by Margie P., Richard S., David S., Dinesh M., Adnan A. H., Eva J. & Colin M. Geneva.
- Wimmer, R.D. & Dominick, J.R. (2006). Mass Media Research: An Introduction (9<sup>th</sup> ed.). Belmont, CA: Thomson Wadsworth.
- Williams, Kevin. (2003). *Understanding Media Theory*. Arnold: London.
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## Appendices

### Appendix I

#### The Quantitative Survey Questionnaire

Hello. My name is Getachew. I am collecting data on road traffic safety messages communication, for the fulfillment of the requirements for my MA degree in journalism and communication. I would very much appreciate your participation in this survey. Your genuine information is very important for the success of the search. Whatever information you provide will be kept strictly confidential. I assure you that your participation will never cause you any risks.

#### I. Demographic information

1. Age: \_\_\_\_\_
2. Sex:  Male     Female
3. Ethnic background:  
 Amhara     Oromo     Tigrie     Other, specify:  
\_\_\_\_\_
4. Religion:  
 Orthodox     Catholic     Protestant     Muslim  
 Other, specify: \_\_\_\_\_
5. Educational background:  
 No formal education     and not able to read     but able to read  
 Primary education     Secondary education  
 Beyond secondary, specify: \_\_\_\_\_
6. Occupation, specify: \_\_\_\_\_
7. Income (monthly): \_\_\_\_\_
8. Which of the following do you own?  
 Radio                       Telephone,  fixed     mobile  
 Television                 Internet service

9. Have you ever experienced any road traffic accident in your life?  
 Yes  No
10. (For a yes response to Q9), how severe was it?  
 Serious  Slight Please specify it:  
 \_\_\_\_\_
11. Do you have any relative(s), friend(s) or colleague(s) whom you lost due to a road accident?  
 Yes  No If yes, please specify:  
 \_\_\_\_\_
12. Do you have any relative(s), friend(s) or colleague(s) injured due to road accident?  
 Yes  No
13. (For a yes response to Q12), please specify it: who faced the accident(s) and how severe was/were the accident(s)?  
 Relative(s).....  
 Friend(s) .....  
 Colleague(s) .....

**II. Exposure to Road Traffic Safety Messages: Awareness**

14. Where do you mainly get information about what is happening in the city? (Always: almost everyday, Sometimes: 3-4 days a week, Never: not at all)

	Always	Sometimes	Never
1. TV			
2. Radio			
3. Newspaper			
4. Internet			
5. Billboards			
6. Other people			
7. Other, specify: _____			

15. Of the following media, which ones do you prefer as a source of information? Rank from the most preferred (1) to the least (6):  
 Television  Newspaper  Internet  
 Radio  Billboard  Other, specify:  
 \_\_\_\_\_
16. How often do you get road traffic safety messages from the media?  
 Always  Sometimes  Rarely  Never

17. Which of these media do you prefer as source of road traffic safety messages? Rank from the most preferred (1) to the least (6):
- Television       Newspaper       Internet  
 Radio       Billboard       Other, specify: \_\_\_\_\_
18. On average, for how long (in hours) do you listen to the radio per a day?
- Less than an hour       3 – 4 hours  
 1 -2 hours       More than 4 hours
19. Have you heard any radio program about road traffic safety over the past six months?
- Yes       No       Don't remember
20. (For a yes response to Q 19), which road traffic safety radio program(s) you remember listening to?
- Radio Fana & National Road Safety weekly program  
 Radio Ethiopia & Transport Authority weekly programs  
 Radio Ethiopia traffic safety/ police weekly program  
 Radio Ethiopia road traffic safety daily programs at FM 97.1  
 Addis Ababa Radio & Addis Ababa Traffic Controlling and Inspection road traffic safety programs aired twice a week at FM 96.3.  
 FM 97.1 & Kabe Bridgestone's two days a week programs  
 FM 98.1 (Radio Fana) road traffic safety daily programs  
 FM 97.1 24 hours traffic accidents reports with bits of advices  
 Others, specify: .....
21. Which of the above programs do you prefer to listen to frequently? Why?
- .....  
.....

**III. Road Traffic Safety Knowledge and Behavior**

22. What does road traffic safety mean to you?
- .....  
.....
23. What are the main contents of the road traffic safety radio messages you usually listen to?
- News about road traffic casualties and resource damages

- Pieces of advices for pedestrians and drivers on using roads carefully
- Information about which way is safe and which is full of traffic
- Discussions on road traffic safety problems, their causes and solutions
- Other, specify: .....

24. What road traffic safety measures could you remember from what you have been listening to?

- Observing speed limits
- Not driving when drunk
- Driving keeping one's distance from other cars in front/behind
- Giving priority for pedestrians
- Respecting traffic lights and other road signs
- Using seat belts
- Taking a good care of vehicles before and while driving
- Using zebras when crossing roads
- Taking the right side and/or pedestrians' platform (for pedestrians)
- Using bridges when crossing highways (*Kelebet Menged*)
- Other, specify: .....

25. What do you personally do after listening to the messages?

- Decide to apply the advices (messages) transmitted.
- Discuss the issues mentioned with family members/other people.
- Forget thinking about them soon
- Other, specify: .....

26. What do you do when you are casually exposed to road traffic safety radio messages?

- Listen to them attentively
- Take part in discussions if they are interactive
- May listen to them half-heartedly
- Avoid them soon
- Other, specify: .....

27. If you avoid listening/paying attention to them, what is your reason?
- I don't think I might face such accidents, so I don't want to worry.
  - I do not find the presentations attractive.
  - I don't feel I could find something important.
  - I feel I know very well what they are talking about.
  - I don't think the programs are designed to address me.
  - I feel there are quite a lot other things I've to worry about.
  - I find the programs overlapping with other programs of interest.
  - Other, specify: .....
28. If you don't use (apply) the road traffic safety messages you have casually or intentionally listened to, what is (are) your reason(s)?
- Lack of adequate knowledge.
  - Lack of adequate road infrastructure.
  - Because it costs you a lot (your time, energy, resource, etc).
  - Because most others do not apply them, and you don't want to be an exception.
  - Because you don't feel you would face accidents.
  - Because you believe God protects you.
  - Because you believe you can't escape a road accident if it is to come.
  - Others, specify: .....
29. How do you evaluate the degree of coverage of actual road traffic problem by the radio programs?
- Exaggerated
  - Undermined
  - Truly covered
  - Uncertain
30. Which people have you ever heard talking about road traffic safety?
- Neighbors
  - Friends
  - Religious leaders.
  - Colleagues
  - Authorities
  - Others, specify: .....
31. How often do you discuss road traffic safety issues with family members or friends?
- Always
  - Sometimes
  - Rarely
  - Never

32. How often have you experienced traffic police telling/teaching pedestrians on the road about safe road use?
- Always       Sometimes       Rarely       Never
33. How often have you involved in road traffic safety issues' discussions in public forums like at schools, religious gatherings, social gatherings, etc ?
- Always       Sometimes       Rarely       Never
34. If your response for Q 33 is Rarely or Never, what is your reason?
- You don't think it is of any value.
- You don't get the chance to do so.
- You don't have the time to spend on such issues.
- Other, specify .....

**Directions**

In order to respond to the following questions, think of the Addis Ababa Radio and Addis Ababa Road Traffic Controlling and Inspection Office Radio Program, being aired on FM 96.1. To help you recall, it is a live and interactive radio program being aired on Tuesdays and Thursdays in the morning (between 7:15a.m. and 8:15a.m.), under a title: *Let's Talk about Our City's Road Traffic Safety.*

35. How often do you listen to this program?
- Always       Sometimes       Rarely       Never
36. How long is it since you have been listening to this program?
- About 3 months.       6 – 12 months.
- 3 – 6 months.       Over a year.
37. What comes to your mind first whenever you think of this program? Please put them in ranks, assign No 1 to what comes first to your mind, up to 6.
- The program's logo (the song)
- The 24 hours' accidents report
- The topic of the day's discussion.
- The reactions (participation) of listeners.
- Comments given by experts from Road Traffic Safety bodies.
- Others, specify: .....

38. What do you say (agree/disagree/uncertain) about the Presentation of the road traffic safety messages you hear from this radio program?

	Agree	Disagree	Uncertain
1. The logo (the song) is appealing.			
2. The live and interactive nature of the program is interesting.			
3. The messages are easy to understand.			
4. The messages are persuasive enough.			
5. The messages promise personal benefits.			
6. The messages are of appropriate length.			
7. The messages are of appropriate depth.			
8. The airtime of the messages is appropriate to reach a good deal of audiences.			

39. Do you believe that the program has provided you with the basic knowledge of road traffic safety?

- Yes                       No                       Not sure

40. Do you think your road use behavior is positively affected by the messages?

- Yes                       No                       Not sure

41. Overall, how much confidence do you have about this program as a source of road traffic safety messages for the audience group?

- Quite a lot               Not very much               Not at all

## አዲስ አበባ ዩኒቨርሲቲ የድህረ ምረቃ ት/ቤት

ጤና ይስጥልኝ። ጌታቸው ጥላሁን እባላለሁ። በአዲስ አበባ ዩኒቨርሲቲ የጋዜጠኝነትና ኮሚዩኒኬሽን ትምህርት ክፍል ተማሪ ነኝ። ለማስተርስ ዲግሪ ማሟያ ጥናቱ በመንገድ ደህንነት ኮሚዩኒኬሽን ላይ መረጃ እየሰበሰብኩ ነው። በዚህ ጥናት ተካፋይ በመሆንም እርስዎንም ከልቤ አክብራለሁ። የእርስዎ ሐቀኛ መረጃ ለጥናቴ ስኬታማነት ወሳኝ ነው። ማናቸውም የሚሰጡኝ መረጃ በሚስጥር የሚያዝ ነው። ስለሆነም አንዳችም አደጋ ይደርስብኛል ብለው ሳይሰጉ እንዲያካፍሉኝ እለምንዎታለሁ።

### 1. አጠቃላይ መረጃ

1. ዕድሜ:-
2. ፆታ:-      ወንድ       ሴት
3. ብሔር:    አማራ       ኦሮሞ       ትግሬ       ሌላ \_\_\_\_\_
4. ሐይማኖት:- ኦርቶዶክስ     ካቶሊክ     ፕሮቴስታንት     ሙስሊም     ሌላ \_\_\_\_\_
5. የትምህርት ደረጃ:-  
 መደበኛ ትምህርት አልተከታተሉም እናም አያነቡም          ግን ያነባሉ   
 የመጀመሪያ ደረጃ ትምህርት ተከታትለዋል   
 ሁለተኛ ደረጃ ትምህርት ተከታትለዋል   
 ከሁለተኛ ደረጃ በላይ ከሆነ ይግለፁት \_\_\_\_\_
6. ስራዎ \_\_\_\_\_
7. ወርሃዊ ገቢዎ \_\_\_\_\_
8. ከሚከተሉት ውስጥ የትኞቹ አሉዎት?  
 ፊዲዮ     ቴሌቪዥን     ቴሌፎን የቤት     ተንቀሳቃሽ     የኢንተርኔት አገልግሎት
9. በህይወትዎ የትራፊክ አደጋ አጋጥሞዎት ያውቃል?  
 አዎ       የለም
10. ለ9ኛው ጥያቄ መልስዎ አዎ ከሆነ የአደጋው ደረጃ ምን ያህል ነበር?  
 ከባድ     ቀላል       ቢገልፁት \_\_\_\_\_
11. በመኪና አደጋ ምክንያት በሞት ያጡዎቸው ዘመድ ወይም ጓደኛ ወይም የሥራ ባልደረባ አሉዎት?  
 አዎ     የለም       ካለ ቢገልፁት \_\_\_\_\_
12. በመኪና አደጋ ምክንያት የተጎዱ ዘመድ ወይም ጓደኛ ወይም የሥራ ባልደረባ አሉዎት?    አዎ       የለም
13. ለ12ኛው ጥያቄ መልስዎ አዎ ከሆነ፣ ማን በአደጋው እንደተጎዱና የአደጋው ደረጃ ምን ያህል እንደሆነ ቢያብራሩ  
 ዘመድ(ዶች) \_\_\_\_\_  
 ጓደኛ(ኞች) \_\_\_\_\_  
 የሥራ ባልደረባ(ቦች) \_\_\_\_\_

**ለመንገድ ትራፊክ ደህንነት መልዕክቶች ያለ ግንዛቤ**

14. በከተማዎ እየሆነ ስላለው ነገር መረጃ በዋናነት የሚያገኙት ከየትኛው ምንጭ ነው?  
 (ሁልጊዜ ካሉ በየቀኑ ሳያቋርጥ ማለትዎ ነው፤ አንዳንድ ጊዜ ካሉ በሳምንት ከ3-4 ቀናት ማለትዎ ነው፤ በጭራሽ ካሉ ደግሞ ከምንጩ ምንም መረጃ አያገኙም ማለት ነው)

የመረጃ ምንጭ	ሁልጊዜ	አንዳንድ ጊዜ	በጭራሽ
ቴሌቪዥን			
ሬዲዮ			
ጋዜጣ			
ኢንተርኔት			
ቢልቦርድ			
ሌሎች ሰዎች			
ሌላ ካለ ይጥቀሱ			

15. ከሚከተሉት የመገናኛ ብዙሀን፣ ለመረጃ ምንጭነት የሚመርጧቸው የትኞቹን ነው? በጣም ተመራጩን 1ኛ ብለው በደረጃ እስከ 6ኛ ድረስ ቢያስቀምጧቸው፡-  
 ቴሌቪዥን  ጋዜጣ  ሬዲዮ  ቢልቦርድ  ኢንተርኔት  ሌላ \_\_\_\_\_

16. የመንገድ ትራፊክ ደህንነት መልዕክቶችን ከመገናኛ ብዙሃን ምን ያህል ያገኛሉ?  
 ሁልጊዜ  አንዳንድ ጊዜ  በጣም አልፎ አልፎ  በጭራሽ

17. ከሚከተሉት የመገናኛ ብዙሀን፣ ለመንገድ ትራፊክ ደህንነት መረጃ ምንጭነት የትኞቹን ይመርጣሉ? በጣም ተመራጩን 1ኛ ብለው በደረጃ እስከ 6ኛ ድረስ ቢያስቀምጧቸው?  
 ቴሌቪዥን  ጋዜጣ  ሬዲዮ  ቢልቦርድ  ኢንተርኔት  ሌላ \_\_\_\_\_

18. በአማካይ በቀን ለምን ያህል ሰዓታት ሬዲዮ ያዳምጣሉ?  
 ከአንድ ሰዓት ያነሰ  ከ1-2 ሰዓት  ከ3-4 ሰዓት  ከ4 ሰዓት በላይ

19. ባለፉት ስድስት ወራት የሆነ በመንገድ ትራፊክ ደህንነት ላይ ያተኮረ የሬዲዮ ፕሮግራም አድምጠዋልን? አዎ  የለም  አላስታውሰም

20. ለ19ኛው ጥያቄ መልስዎ አዎ ከሆነ፣ የትኛውን (የትኞቹን) የመንገድ ትራፊክ ደህንነት ሬዲዮ ፕሮግራም ማዳመጥዎትን ያስታውሳሉ?  
 የሬዲዮ ፋናና የብሔራዊ መንገድ ደህንነት ባለስልጣን ሳምንታዊ ፕሮግራም  
 የኢትዮጵያ ሬዲዮና የትራንስፖርት ባለስልጣን ሳምንታዊ ፕሮግራም  
 የኢትዮጵያ ሬዲዮና የፖሊስ (የትራፊክ ደህንነት) ሳምንታዊ ፕሮግራም  
 በFM 97.1 የሚተላለፈውን የኢትዮጵያ ሬዲዮ የመንገድ ደህንነት ዕለታዊ ፕሮግራም

- በFM 96.3 የሚተላለፈውን የአዲስ አበባ ሬዲዮና የአዲስ አበባ ትራፊክ መቆጣጠሪያና ምርመራ መምሪያ የሳምንት ሁለት ቀን ፕሮግራም
- በFM 97.1 የሚተላለፈውን የካቤ ብሪጅስቶን የሳምንት ሁለት ቀን ፕሮግራም
- በFM 98.1 የሚተላለፈውን የሬዲዮ ፋና መንገድ ትራፊክ ደህንነት ዕለታዊ ፕሮግራም
- በFM 97.1 የሚተላለፍ የዕለታዊ (የ24 ሰዓት) የትራፊክ አደጋ ሪፖርት ሌላ ካለ ይግለፁ \_\_\_\_\_

21. ከላይ ከተዘረዘሩት (20ኛ ጥያቄ) ፕሮግራሞች መካከል የትኛውን/የትኞቹን አዘውትረው ማዳመጥ ይመርጣሉ? ለምን? \_\_\_\_\_

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**የመንገድ ትራፊክ ደህንነት ዕውቀትና ባህሪ**

22. በእርስዎ አረዳድ የመንገድ ትራፊክ ደህንነት ማለት ምንድነው? \_\_\_\_\_

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23. ብዙውን ጊዜ በሬዲዮ ደሚደመጡ የመንገድ ትራፊክ ደህንነት መልዕክቶች ዋና ዋና ይዘቶች ምን ምን ናቸው?

- በሰውና በንብረት ላይ ስለደረሱ የመንገድ አደጋዎች የሚቀርቡ ዜናዎች
- ለእግረኞችና አሽከርካሪዎች መንገድን በጥንቃቄ ስለመጠቀም የሚሰጡ ምክሮች
- የትኛው መንገድ በትራፊክ የተጨናነቀና የትኛው ክፍት ስለመሆኑ የሚሰጡ መረጃዎች
- ስለመንገድ ትራፊክ ደህንነት ችግሮች፣ መንስኤዎቻቸውና የመፍትሔዎች የሚደረጉ ውይይቶች ሌሎች \_\_\_\_\_

24. ሲያዳምጧቸው በነበሩ ፕሮግራሞች የመንገድ ትራፊክ ደህንነት መፍትሔዎች ተብለው ከሚነሱት መካከል የትኞቹን ያስታውሳሉ?

- አሽከርካሪዎች ፍጥነታቸውን ይቀንሱ /ይወስኑ/ የሚለውን
- አሽከርካሪዎች ከጠጡ አይንዱ የሚለውን
- አሽከርካሪዎች ለእግረኞች ቅድሚያ ይስጡ የሚለውን
- አሽከርካሪዎችና መንገደኞች የደህንነት ቀበቶ /safety belt/ ይጠቀሙ የሚለውን
- እግረኞች በማቋረጫ ቦታዎች ላይ /Zebra Crossings/ ያቋርጡ የሚለውን
- እግረኞች ግራቸውን ወይም የእግረኞች መንገድን ይጠቀሙ የሚለውን
- እግረኞች ቀለበት መንገደ ሲያቋርጡ መሽጋገሪያ ድልድዮችን ይጠቀሙ የሚለውን ሌላ ካለ ይግለጹ \_\_\_\_\_

25. መልዕክቶቹን ከሰሙ በኋላ እርስዎ በግልጽ ምን ያደርጋሉ?

- የተላለፉትን መልዕክቶች (ምክሮች) ተግባራዊ ለማድረግ ይወስናሉ
- በተላለፉት ጉዳዮች ላይ ከቤተሰብ አባላት ወይም ሌሎች ሰዎች ጋር ይነጋገራሉ
- ስለተላለፉት መልዕክቶች ማሰብን ወዲያው ይተዋሉ

ሌላ ካለ ይግለጹ \_\_\_\_\_

26. ስለመንገድ ትራፊክ ደህንነት የሚተላለፍ የሬዲዮ መልዕክት በድንገት ቢያጋጥም ምን ያደርጋሉ?

- በጥሞና ያዳምጣሉ
- ዕድሉን ካገኙ እርስዎም በጉዳዩ ላይ በሚደረጉት ውይይቶች ይሳተፋሉ
- በግማሽ ልብ ያዳምጡ ይሆናል
- በፍጥነት ከትኩረትዎ ያወጣሉ

ሌላ \_\_\_\_\_

27. ማዳመጥን ወይም ትኩረት መስጠትን ካልፈለጉ ምክንያትዎ ምንድነው?

- የመኪና አደጋ ያጋጥመኛል ብለው አያስቡምና መጨነቅን አይፈልጉም
- የመልዕክቶቹ አቀራረብ ሳቢ ሆኖ አያገኙትም
- ከመልዕክቱ ቁምነገር ያለው ነገር አገኛለሁ ብለው አያስቡም
- በመልዕክቱ ውስጥ የሚነሱትን ነገሮች አሳምሬ አውቃቸዋልሁ ብለው ያምናሉ
- መልዕክቶቹ የተዘጋጁት ለእኔ ነው ብለው አያምኑም
- ሊጨነቁባቸው የሚገቡና ቅድሚያ የሚሹ ሌሎች ብዙ ጉዳዮች አሉኝ ብለው ያስባሉ
- መልዕክቶቹ በሚተላለፉበት ጊዜ/ሰዓት ሌሎች የተሻለ የሚመርጧቸው ጉዳዮች በሌላ ጣቢያ ይተላለፋሉ

ሌላ \_\_\_\_\_

28. በአጋጣሚም ይሁን ሥራዬ ብለው ያዳመጧቸውን የመንገድ ትራፊክ ደህንነት መልዕክቶች የማይጠቀሙባቸው (ተግባራዊ የማያደርጓቸው) ከሆነ፣ ምክንያትዎ (ምን ምን) ናቸው?

- የበቂ ዕውቀት እጥረት
- የመንግድ መሰረተ ልማት ውሳኔን
- የጊዜ÷የጉልበት÷ የሐብት ወዘተ. ዋጋ ስለሚያስከፍልዎ
- ሌሎች ብዙዎች ተግባራዊ አያደርጉምና እርስዎ የተለዩ ሆነው መታየትን ስለማይፈልጉ
- አደጋ ያጋጥመኛል ብለው ስለማይሰጉ
- ፈጣሪ ይጠብቀኛል ብለው ስለሚያምኑ
- አደጋው ከመጣ መውጫ/ማምለጫ የለኝም ብለው ስለሚያምኑ

ሌላ \_\_\_\_\_

29. በእርስዎ ግምገማ ተጨባጩ የመንገድ ትራፊክ ደህንነት ችግር በፊደል ምን ያህል ሽፋን አግኝቷል?

ተጋኗል  በበቂ አልተሸፈነም  በትክክል ተሸፍኗል  እርግጠኛ አይደለሁም

30. የትኞቹ ሰዎች ስለመንገድ ትራፊክ ደህንነት ሲናገሩ ሰምተው ያውቃሉ?

ጎረቤቶችዎ  ጓደኞችዎ  የሃይማኖት አባቶች  የሥራ ባልደረቦችዎ   
የመንግስት ባለስልጣናት  ሌላ \_\_\_\_\_

31. ስለመንገድ ትራፊክ ደህንነት ጉዳይ ከቤተሰብዎ ወይም ከጓደኞችዎ ጋር ምን ያህል ይወያያሉ?

ሁልጊዜ  አንዳንድ ጊዜ  በጣም አልፎ አልፎ  በጭራሽ

32. የትራፊክ ፖሊስ እግረኞችን መንገድ ላይ አቁሞ ስለ ሰላማዊ የመንገድ አጠቃቀም ሲያናግር/ሲያስተምር/ ምን ያህል ያጋጥሞታል?

ሁልጊዜ  አንዳንድ ጊዜ  በጣም አልፎ አልፎ  በጭራሽ

33. በመንገድ ትራፊክ ደህንነት ጉዳዮች ዙሪያ በሚደረጉ ህዝባዊ መድረኮች (እንደ ሃይማኖታዊና ማህበራዊ ስብሰባዎች) ላይ ምን ያህል ተሳትፎ ያደርጋሉ?

ሁልጊዜ  አንዳንድ ጊዜ  በጣም አልፎ አልፎ  በጭራሽ

34. ለ33ኛ ጥያቄ መልስዎ በጣም አልፎ አልፎ ወይም በጭራሽ ከሆነ፣ ምክንያትዎ ምንድነው?

ጥቅም አለው ብለው አያስቡም  ለመካፈል ዕድሉን አያገኙም

በዚህ ሊያጠፉት የሚችሉት ጊዜ የለዎትም  ሌላ \_\_\_\_\_

ለሚከተሉት መጠይቆች በአዲስ አበባ ፊደልና በአዲስ አበባ ትራፊክ መቆጣጠሪያና ምርመራ ቅንጅት እየተዘጋጀ በFM 96.3 የሚተላለፈውን ፕሮግራም በማሰብ ምላሽ እንዲሰጡኝ እጠይቅዎታለሁ። ለማስታወስ፣ ይህ ፕሮግራም ስለ ከተማችን የመንገድ ትራፊክ ደህንነት እንነጋገር በሚል መሪ ርዕስ በሳምንት ሁለት ቀናት (ማክሰኞ እና ሐሙስ ጠዋት ጠዋት ከ1:15 እስከ 2: 15 ባው ጊዜ) በስልክ የሚደጉ ውይይቶችን በቀጥታ የሚያስተላልፍ ነው።

35. ይህን ፕሮግራም ምን ያህል ያዳምጣሉ?

ሁልጊዜ  አንዳንድ ጊዜ  በጣም አልፎ አልፎ  በጭራሽ

36. ይህን ፕሮግራም ሲያዳምጡ ምን ያህል ጊዜ ይሆንዎታል?

ወደ 3ወር ግድም  ከ6-12 ወር  ከ3-6 ወር  ከአንድ ዓመት በላይ

37. ስለዚህ ፕሮግራም ሲያስቡ ወደ አእምሮዎ ቀድሞ የሚወጣው ምኑ ነው? በደረጃ ቢያስቀምጡዎቸው (ወደ አእምሮዎ ቀድሞ የሚመጣውን 1ኛ በማለት እስከ 6ኛ ድረስ)

- የፕሮግራሙን ሎጎ (አርማ) ወይም መዝሙሩ
  - የ24 ሰዓት የመንገድ አደጋዎች ሪፖርት
  - የዕለቱ የመወያያ (መማማሪያ) አጀንዳ/ርዕስ ጉዳይ
  - የተለያዩ አድማጮች ምላሽ/ተሳትፎ
  - ከመንገድ ትራፊክ ደህንነት ባለሞያዎች የሚሰጥ ማጠቃለያ ትምህርት
- ሌላ \_\_\_\_\_

38. ስለዚህ ፕሮግራም የመንገድ ትራፊክ ደህንነት መልዕክቶች አቀራረብ ምን ይላሉ? (ይስማማሉ? አይስማሙም? እርግጠኛ አይደሉም?)

	እስማማለሁ	አልስማማም	እርግጠኛ አይደለሁም
ሎጎው (መዝሙሩ) ሳቢ ነው			
ፕሮግራሙ ቀጥታና አሳታፊ (live and interactive) መሆኑ ጥሩ ነው			
መልዕክቶቹን በቀላሉ መረዳት ይቻላል።			
መልዕክቶቹ በበቂ አሳማኝ ናቸው።			
መልዕክቶቹ ያድማጩን ጥቅም ያገላሉ።			
የመልዕክቶቹ ርዝመት ልክኛ ነው።			
የመልዕክቶቹ ጥልቀት ልክኛ ነው			
መልዕክቶቹ የሚቀርቡበት የአየር ጊዜ በብዙ ለአድማጮች ምቹ ነው።			

39. ፕሮግራሙ መሰረታዊ የመንገድ ትራፊክ ደህንነት ዕውቀት ሰጥቶኛል ብለው ያምናሉ?

አዎ  የለም  እርግጠኛ አይደለሁም

40. የመንገድ አጠቃቀም ባህርዩ ከመልዕክቶቹ የተነሳ በአዎንታዊ መልኩ ተለውጧል ብለው ያምናሉ?

አዎ  የለም  እርግጠኛ አይደለሁም

41. ፕሮግራሙ ላይ እጅግ የሚወዱት ነገር ምንድን ነው?

\_\_\_\_\_

42. ፕሮግራሙ ላይ እጅግ የሚጠሉት ነገር ምንድን ነው?

\_\_\_\_\_

43. ባጠቃላይ፣ በዚህ ፕሮግራም የመንገድ ትራፊክ ደህንነት መልዕክት ምንጭነት ምን ያህል ይተማመኑበታል?

በባም እተማመንበታለሁ  ብዙም አልተማመንበትም  ምንም አልተማመንበትም

## **Appendix II**

### **Guiding Questions for the In-depth Interview with audiences**

#### **Key Points to focus on/include**

1. respondents' knowledge and awareness about RTS
  - respondents' understanding of what RTS mean
  - respondents' awareness of the severity of road traffic related fatalities and resource damage
  - respondents' knowledge of safety measures to be taken
2. audience reaction to radio messages on RTS
  - radio use as a source of RTS messages
  - radio RTS messages and their appropriateness to the information needs of them (audiences)
  - language, culture and other social aspects in RTS messages

#### **The Questions**

1. Compared to other health issues like HIV/AIDS, sanitation etc, is road traffic safety a serious problem in Addis Ababa? Why?
2. What do you think is the main reason of road injuries: is it because of bad luck? Carelessness? Lack of education? Poor legal enforcement? etc.
3. To what extent do you listen to radio messages on RTS? Why?
4. What theme do you get from these radio messages? What effects do these programs have on your awareness and knowledge of RTS?
5. Are the messages tailored with your culture? Do you readily accept or refuse the messages? What problems have you been observing with the messages and/or their presentation?
6. What do you think are the barriers to your accepting the radio messages? What problems do you observe with the language of the messages? Content? Attractions? Design?

7. Do you think that road accidents are preventable and predictable?  
Why?
8. How do you see the live/interactive RTS radio programs of FM 96.2?  
Do you enjoy listening to them? Taking part in the discussions? Do  
you think they have many listeners? Why? Why not?
9. Do you think there is change of behavior that could be attributed to  
the radio RTS messages? Why or why not? What specific  
comments/ reactions do you have about the radio RTS messages?
10. What do you recommend to the radio RTS messages designers  
and producers?

## Appendix III

### Guiding Questions for the In-depth Interview with RTS Specialists and RTS Radio Programs Producers

#### Key Points to focus on/include

- Information and knowledge on the degree of road traffic fatalities and resource damage worldwide in general and in Addis Ababa in particular
- What communication strategies they are using to combat the problem
- Beliefs on the role of radio to communicating RTS messages and communication strategies employed to this effect

#### The Questions

##### Identification

(Name: \_\_\_\_\_) Age: \_\_\_\_\_ Sex: \_\_\_\_\_

Current responsibility: \_\_\_\_\_ For how long: \_\_\_\_\_

1. Is road traffic safety a serious issue in Addis Ababa? Why?
2. How do you see the rate of prevalence road traffic accidents over the past three years? Is it on the increase or on the decrease? Why?
3. What strategies is your office employing to combat the problem?
4. What specific strategies do you employ in the production of radio RTS messages? Do you undertake surveys? Audience/cultural analysis? Pre-testing of your programs? Etc.
5. What specific methods have you been applying in designing RTS messages? What are your grounds in doing so?

6. What do you think are the major challenges you face in your behavior change endeavors on the behavior of pedestrians and drivers?
7. Are there any feedback mechanisms you use to learn about your programs from your audiences?
8. How do you evaluate the successes of the radio programs compared with the efforts made? Where do you think is the problem?
9. Is there anything you are planning to do in the future to curb the problem?

## **Appendix IV**

**Maps of Addis Ababa, *Kirkos* Sub-city and the two *Kebeles* data were collected from**

## **Declaration**

This thesis is my original work. It has not been presented for a degree in any other university and that all sources of material used for the thesis have been duly acknowledged.

Getachew Tilahun Wakenie

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15 June, 2009