Zambia's Health Education News radio program, which was launched in 1982, features 15-minute broadcasts in English and several local languages. The primary objectives of the radio program are to encourage individuals to attend various health clinics and get their children immunized, teach communities to value their health, make people accept responsibility for their own health, and provide information on the symptoms and prevention of some common diseases. The World Health Organization (WHO) has encouraged Zambia's Ministry of Health to seek cooperation from other ministries and agencies involved in health promotion and share radio airtime with them. The WHO has also developed a series of preproject considerations, planning and management strategies, airtime-scheduling and manpower guidelines, and market research/testing guidelines for Zambian radio. This document also contains an analysis of the strategies used in radio broadcasting to inform and educate communities and a discussion of various program formats, including radio forum, open broadcasting, listening groups and tape recordings, letter spot programs, competitions, discussion panels, storytelling, spot announcements, incorporation of music and soap opera format into health promotion programs, and interviews. (Also included are 20 references/suggested readings.) (MN)
HEALTH EDUCATION
BY RADIO:
A Zambian experience
by Rackson Chitanda

World Health Organization
Geneva
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INTRODUCTION

At least in the foreseeable future, governments in developing countries will not have the resources to train enough health workers to provide health care coverage for all rural areas. As a result, rural communities will become even more isolated from national health services and served by even fewer qualified health workers.

Zambia’s experience, which is similar to the experiences of other developing countries, has shown that communication is one of the key determinants of the success of primary health care. Remote communities without adequate road communications present special health care problems and these are worsened in the rainy season. During this time of the year, many rural communities suffer from malaria, worm infestation and bilharzia. The number of visits by health staff to such areas are further reduced as roads become impassable. When health care visits cannot be made, radio communication becomes the only viable alternative.

Even in normal circumstances, radio is a vital supplement to the normal supervisory and teaching visits made by health staff to rural areas. As a communication medium, radio can create awareness of important health, nutrition and family planning concepts, convey new information and promote changes in behaviour.

This review aims to demonstrate the importance of radio as a medium of health education in the community and illustrate how it was used by the Health Education Department of the Ministry of Health in Zambia.

Chapter 1 concentrates specifically on the Zambian radio programme Health Education News, giving details of problems encountered and suggestions for improvements in radio management for health in Zambia. Chapter 2 analyses the strategies used in radio broadcasting to inform and educate the community, while chapter 3 describes the different programme formats suitable for health education broadcasts.
Communication is one of the key elements of Primary Health Care
In 1969 Zambia, as a developing country, recognized the importance of radio as a medium for disseminating information on the causes and prevention of disease. One of the first health education broadcasts in the country, the **Tell Me Doctor** programme, was presented by an expatriate doctor. Although this was very popular, the programme was not as effective as it might have been: the less educated sections of the community, who were supposed to be the main target audience, did not benefit from the broadcasts, since they were presented in English. The programme ended on the departure of the presenter, who was unable to hand over the programme to another person. Despite the fact that this pilot programme failed to reach the rural community, it succeeded in making health workers aware of radio as a teaching and communication medium.

The **Health Education News** radio programme was launched in 1982, when primary health care was introduced in Zambia. These fifteen-minute programmes were presented in several local languages: Lozi, Nyanja, Tonga, Bemba and English. Negotiations were then begun to allocate airtime for **Health Education News** to be broadcast in Kaonde, Lunda and Luvale, other local languages in Zambia, to reach a wider and less educated audience.

The objectives of the **Health Education News** radio programme are to promote changes in behaviour, both individually and collectively. People are intended to be encouraged by radio to attend antenatal clinics, family planning clinics, under-five clinics, and immunization sessions for children. Communities should be encouraged to value their health. In addition, individuals should be made to feel responsible for their own health and be able to recognize and prevent some common diseases.

An important element in health education of the community is community participation. People should be encouraged to join together to participate in their own health care. All community health workers should be urged to listen to the radio and to consider it a source of additional and up-to-date information.
Intersectoral Cooperation

There is little the Ministry of Health in general and the Health Education Unit in particular can achieve in terms of health education by radio if they continue working in isolation. Reaching the World Health Organization's objective of Health for All by the year 2000 is a responsibility the Ministry of Health should share with other appropriate agencies.

The Ministry of Health should seek cooperation from other Ministries and agencies involved in health promotion and share airtime on radio Zambia. This will help to ensure the maximum use of limited resources. It is advisable to involve these other bodies as early as possible in a radio production, as people are more likely to support a programme they feel they have helped to plan. Some bodies of potential interest are listed below.

The Ministry of General Education (Educational Broadcasting Services). This concentrates mainly on academic education and has made health education part of other science subjects, e.g. domestic and natural sciences and religious instruction. Health education might have more impact if were taught as a separate subject, as its inclusion in different disciplines causes it to lose the prominence it deserves. However, the Health Education Unit of the Ministry of Health helps to prepare health education material for transmission by radio to schools by teachers. An example is the Child to Child Health programme which could not succeed without teacher cooperation.

In 1983, UNICEF ran a health education programme on radio in the form of drama, using theatre artists based in Lusaka. The programme, which was known as Bana Gelo was both interesting, informative and very popular, and shows what may be achieved if UNICEF and the Ministry of Health pool their resources. Another important relationship within health education is that between food and health, as an inadequate food supply means poor health in the community. Thus, close links should also be maintained between the Ministry of Agriculture and the Ministry of Health.
The Department of Social Development in the Ministry of Labour and Social Development has been running literacy programmes on radio Zambia for many years. The officers running this programme have extensive experience, and have organized efficient listening groups (mainly women) all over the country.

In order to ensure that these health education broadcasts reach their target audience, the Zambia National Wholesalers and Marketing Corporation needs to solve the problem of unequal distribution of radio batteries in Zambia. Batteries are often abundant in urban areas, where electricity is available, and scarce in rural areas, where there is no electricity. An adequate distribution of batteries throughout the country would help to foster a larger radio audience. This practical problem is common in many developing countries.

Radio broadcasts are an important way of reaching the rural community, such as the nomads of Somalia shown here.
Pre-Project Considerations

It is unwise for organizations to start a radio programme without first considering what is involved in such a venture. Before choosing radio as a medium for a Primary Health Care Project (PHC), planners should first consider the following issues:

- The objectives and intended audiences should be described. It is almost impossible to evaluate one's work if these two requirements are not met.

- The technical capacity of local radio stations should be checked to ensure that there is an adequate signal to reach the audience.

- Determine, through a survey or a review, whether or not the target audience has radios and batteries available at a price they can afford.

- Local production and broadcasting capabilities should be examined to make sure that the desired programme can be transmitted at the appropriate time.

- There must be high-level administrative support. A radio project is ambitious, and the chances of its succeeding without such support are remote. It is therefore important to have a support system so that problems, when they arise, can be solved collectively.

- It is wise to take time when starting a programme. The nationwide *Man Is Health* radio project in Tanzania required sixteen months of intensive planning. Proper planning is essential for a successful radio programme.

Planning and Management

Effective planning and management are vital elements of radio programme production. Organizing a national radio programme like *Health Education News* means coordinating a number of different intersectoral and individual interests.
Planning is basically a process of decision-making, and should involve a range of individuals and organizations, such as politicians, administrators, private companies and possibly the general public. A Planning Committee is vital, as it can develop and implement decisions related to the Health Education News radio programme. It will also stimulate and facilitate the communication process, by making relevant individuals and organizations more aware of the purpose of the programme. As a coordinator, the Committee will ensure that radio programmes in all languages contain relevant and useful information. As a negotiator, the Committee should ensure that all individuals and organizations with interest or expertise in radio broadcasting get involved in the programme.

A planning committee should consist of the following people:

1. Deputy Director of Medical Services (Primary Health Care)
2. The Health Education Specialist
3. Four health education officers (in this case based in Lusaka) who will mainly be involved with radio programmes
4. Principal Tutor, or his representative from the Lusaka School of Nursing
5. Principal Tutor, or his representative from the Chiratama College of Health Sciences
6. Chief Community Development Officer, or his representative from the Lusaka City Council
7. Senior Transport Officer

Airtime

Programme scheduling is very important, so health educators wanting to present radio programmes must make prior arrangements with Broadcasting House for airtime. For example, a radio team was once promised airtime for programmes in Lunda, Luvale and Kaonde by officers of the Zambia Broadcasting Services, only to be refused airtime at a later date after the team went ahead and found programme presenters who spoke these languages and recorded several radio programmes.
It is also worth bearing in mind that the best times of day for broadcasting primary health care messages may not be available for health education programmes. In many developing countries, access to broadcasting channels is limited, and may result in scheduling problems.

**Manpower**

An agency starting radio broadcasting may not have enough trained manpower, leading to a lack of new material and uninteresting programmes. The problem of manpower becomes even more complex if the programme is multi-lingual, like the Health Education News radio programme of Zambia, which has to be presented in eight different languages to reach the required wide audience. So, manpower planning is an essential element in the management of any health education programme, especially when setting up a series of radio broadcasts.

A producer of health education programmes on radio should bear in mind the characteristics needed by a radio presenter when building his team. A radio presenter should have a pleasant tone of voice, be reliable and committed to his job. He should be friendly, good at talking to people, patient, and have the ability to keep calm during a crisis. A combination of appropriate skills, knowledge and attitudes is required to perform any job at an acceptable standard, and radio presentation is no exception. Radio presenters should be properly trained, not only to acquire these important assets, but also because training motivates employees and boosts their morale.

In Zambia, radio presenters should be taken from full-time health workers based in Lusaka, who are fluent in Tonga, Bemba, Lozi, Nyanja, Kaonde, Livale, Lunda and English. They should include people from a variety of professions such as public health nurses, clinical officers, registered nurses, Zambia enrolled nurses and environmental officers.
Audience Research

One of the main considerations of radio programme production is audience research, as it is vital to know if programmes are listened to by the target audience, and if they have the desired effect. A Research and Evaluation Officer may be appointed, and it is his job to determine:

* Who listens to radio and why
* Who does not listen to radio and why
* At what time most people listen to radio
* The types of programmes they like most

The answers to these questions may vary from one province to another, or even from one village to another. To some people, listener research is simply the gathering and analysis of opinions. However, these statistics help to determine optimum broadcasting times for radio programmes, and may also help the Health Education Unit to influence the government on the pricing of radios and batteries. Finally, it should be kept in mind that audience research ensures that airtime on radio is used to maximum effect.
Pre-testing

Health education programmes are able to afford only a limited amount of airtime on radio Zambia, so a producer should use every second to maximum effect. It is important for the producer to recognize how to achieve his health education objectives most effectively. Despite careful planning, script writing, and production, a particular radio programme, or an entire series of programmes, can be received with great indifference by the audience. Radio programmes which have an inattentive or bored audience are wasted opportunities, as well as squandered time and money.

Pre-testing is a way of avoiding programming failure. The audience for a pre-test can be small groups of people assembled in a room. If they are literate, they can fill out the questionnaire themselves. If they are illiterate, a number of trained interviewers are needed to administer the questionnaire, one person at a time, in semi-isolation. The environment must allow the participants to feel free to criticise the programme without hindrance.

In general, thorough research and good management are two of the most important requirements for a successful radio programme. Moreover, punctuality is also of prime importance, as delays may result in the disruption of the running of the programme. Above all, presenters and planners of radio programmes should be aware of the constraints of radio broadcasting, especially of the time constraint and the need to plan programmes ahead of time.
Chapter 2: THE IMPACT OF RADIO ON HEALTH

It is accepted that radio listeners can be motivated to change their behaviour by hearing health education programmes on the radio. A Health Practices Survey in Tanzania (Hall 1978) has demonstrated this. In the developing world, the number of radio listeners is increasing every day as more and more people, both in rural and urban areas, buy radios. This demonstrates how popular radio is in every household, and how it can be a very powerful medium of communication for the health educator to reach the community.

Radio has a number of uses in promoting health in the community:

Education and information

Information broadcast through a well-designed and executed programme can also help schoolchildren to learn. This has been shown by a radio programme to teach mathematics in Nicaragua (Sweeney, 1982). In Sri Lanka, weekly radio dramas on health and family planning have been shown to increase knowledge of these subjects in the community. A majority of listeners interviewed could recall some of the health messages and found the material valuable. The fact that radio can educate and provide information to the community has been proven both in developed and developing countries (Sweeney 1982).

Promotion of Health Products and Services

Radio has also been effective in motivating individuals to use health services and purchase health products such as contraceptives. A commercial project in Indonesia to sell a specially packed condom was supported by an intensive advertising campaign, with radio as the principal medium. During the campaign, condom sales increased by 50%. When the campaign ended, sales dropped to the pre-campaign level (Sweeney, 1982), demonstrating once again that health messages need to be repeated and reinforced to influence human behaviour.

Community Participation

Radio has also been successfully used to popularize a government programme by encouraging discussion, feedback and support for
new measures. Radio has been used to promote community participation in different development projects. In 1972, Ecuador's Radio Mensaje launched a programme for students. As part of this programme, cassettes were sent to listener groups, who collaborated with others in the community in preparing materials for a weekly broadcast. (Sweeney, 1982)

Radio broadcasts reinforce formal health education in the Gambia

Innovation

Listeners can be motivated by radio to change their behaviour, if the message is relevant and carefully chosen. However, there should also be human interaction if there is to be a lasting change in behaviour. The Nationwide Masagana 99 project in the Philippines used radio as the principal medium of communication to present agricultural information to the community, aimed at increasing rice production. After three months of a saturation campaign of short messages and daily agricultural programmes broadcast on 250 radio stations, an evaluation showed significant increases in rice yields and in income generation.
Another example is the Tanzanian health education programme, *Man is Health*, which used radio and discussion groups. This programme not only produced a significant increase in knowledge, but the campaign was also the stimulus for health and development projects, including the construction of some 700,000 latrines, and the purchase and use of mosquito netting. (Sweeney, 1982).

**Advantages of radio**

Radio is relatively inexpensive considering the cost per person reached, i.e. it is **cost effective**. Both its capital cost and its running expenses are low when compared to other media. The large-scale manufacture and distribution of cheap batteries and battery-operated transistor radios has contributed to the development of a larger audience for radio than that for any other medium. More people, both in rural and in urban areas, can afford to purchase a radio than a television or even a daily newspaper.

**Limitations of Radio**

However, radio does have its limitations. Chief of these, for instructional purposes, is that there is usually no record of the broadcast for the audience. To counteract this, when planning educational programmes on radio, tape recorders should be made available to target audiences, because without tape recorders to make a record of the programme, radio material cannot be used as reference material. Empty tapes should also be provided, so that recorded tapes are not erased to tape new material. So donor or sponsor agencies supporting educational radio programmes must ensure that sufficient tapes and recorders are included in the project if a really effective educational impact is to be achieved.

Radio can also be misused. For example, a health worker may prepare a message for broadcasting without proper investigation, and talk about the prevention of smallpox. Listeners who know that the disease no longer exists will lose confidence in the programme. If a programme is broadcast without proper investigation of the target audience's attitudes, behaviour, or vocabulary, radio becomes a wasted resource.
Chapter 3: FORMATS FOR HEALTH BROADCASTS

A number of programme formats are available to producers of health education broadcasts. A selection of different formats has been reviewed below, from which a health educator can identify the most suitable for his health messages or health education campaign.

**Radio Forum:** this is a special type of educational radio programme, which attempts to bring expert instruction to places which are difficult to reach by involving the audience in a group discussion. This experience relies heavily upon group participation, group solidarity, and personal involvement in the activities on the radio. This format does more than permit participation: it provides an opportunity for group discussion with friends and neighbours in a learning situation.

In this format, a group of persons meet at a designated time to listen to broadcasts on a given topic. It is important to limit the length of the programme to thirty minutes, with intensive technical instruction only during the first fifteen minutes. Following the broadcast, the material is discussed by the group. Although radio forum can be one of the most effective ways of teaching by radio, it should be noted that it is quite difficult to organize.

**Open Broadcasting:** the listening audience is not organized in a group in the same way as in Radio Forum. Certain radio programmes, such as family planning programmes, can be directed to a specific group, i.e. women of childbearing age.

An Open Broadcasting strategy has been implemented in Sri Lanka, where the Ministry of Health ran health education dramas on radio. (Sweeney, 1982). The Kenyan Government has also used the same strategy with comedy dialogue to discuss modern childcare practices. Open Broadcasts can increase knowledge, bring about changes in habits, reach large numbers of listeners and build a regular listenership.

Attempting to reach a large unorganized audience requires particular attention to listening habits and listener characteristics. Programmes
of general interest should be broadcast at a suitable time, and it is important to know which topics interest people most. The Kenyan health programme, the Kiroboto show, has captured large urban and rural audiences. Health messages are delivered to people who would have no exposure to these issues. Without proper timing of these programmes, few people would be able to listen and benefit.

**Listening Groups and Tape Recordings:** there are two ways to use listening groups: either in live broadcasts or taped (two-way) programmes. The Literacy Radio Programme in Zambia is an example of a programme utilizing listening groups. Radios and batteries are provided by the government. In most cases, a listening group listens to radio under the supervision of a community development officer. After the broadcast, listeners meet and ask questions relating to the broadcast. The essence of the listening group strategy is organization. Facilitators must be trained to lead the groups and provide reading materials. A great deal of field-work is required in setting up, supervising and maintaining such groups, although they can be very effective.

![An appreciative audience for evening classes broadcast by radio as part of rural education in India](image)
Tape recorders are very useful, as they can transmit the material recorded from the studio to the listening groups anywhere and anytime. The recorder can be used to repeat messages, as in open broadcasting. In general, tape recorders can be an effective teaching medium for listening groups. A broadcast message on a tape recorder (or radio) can have greater credibility than a message delivered in person. Therefore, information played on tape recorders in community situations can result in high information recall by the target listener. Rural groups can also use tape recorders to participate in the production of materials for broadcasting.

A programme presented as a written script can be monotonous and unappealing to the listener. To avoid monotony, it is important that as many people as possible in the community be involved in the production process. Listener participation in the programme can attract a larger audience from the community. An example of this are Letter Spot programmes, when letters from listeners expressing their feelings or asking questions are read and discussed on the air.

A good method of soliciting audience response is the use of competitions. An incentive to listeners are prizes for correct answers to monthly quiz games. One way of managing this format is to find sponsors to donate prizes. Local companies may be willing to help.

For health education programmes in drama format, it is a good idea if the drama is first written in the local language. Drama productions can be time-consuming to organize, and actors may not always be available. Existing groups, such as women’s clubs in welfare centres, could be asked to help produce a drama series. Success with this kind of programme in Zambia has been closely tied to the co-operation of the Chief Community Development Officer of Lusaka City Council. A drama format also contributed to the success of the Tanzanian radio programme entitled Man is Health, Peigh Terry et al. (1979).

Discussion Panels: a panel of professional people can be invited to discuss a health problem and give advice to listeners. Alternatively,
members of the community can be invited to discuss health related problems and projects in their areas, and why these projects are succeeding or failing. This kind of format can help build audiences. As in the Letter Spot format, feedback from listeners is usually immediate. Knowing the reaction of listeners to the programme can act as feedback in planning the programme for the benefit of the listening public.

**Storytelling:** this stimulates the interest of listeners. In health education, this format is ideal and can prove to be popular, especially among children. The programme *Children's Corner*, broadcast every morning on radio Zambia, is an example of this format. Health education messages could be built into the stories.

Another effective method of disseminating information is the use of **Spot Announcements**, which can be scheduled to run in-between longer programmes. Most spot announcements last for a maximum of 20 seconds. The advantages of radio spot announcements are that the preparation time is short, and they can be delivered "live" with no production cost for the announcement.

**Music** can also be used in broadcasting health news on radio. Inviting skilful popular musicians to compose songs on health education can draw attention to the song's message. The song *Twaleni Abana Benu Kucipatala*, a Bemba song by the late Emmanuel Mulemena, is an example of a health education song which proved to be very successful in Zambia.

**Soap Opera** on radio also attracts regular audiences. This format is exemplified by the *Ifyabukaya* radio programme, popular among Bemba listeners in Zambia. The difference between soap opera and Drama is that in the former, the story never comes to an end, it never reaches a climax. Stories containing health messages can prove to be quite popular if the story is well-done. However, this is a difficult format to manage.

In a health education programme, time can be divided so that **news on health related projects** can be read to listeners. People like to hear the name of their village mentioned on radio.
Interviews i.e. a discussion in a question and answer format between the broadcaster and one or two guests, usually on an interesting topic, activity, project or idea. The interview can also be used to establish the opinion of the "man in the street", either in a studio or literally in the street. It is then called "vox pop".

In general, the personal or human element in a health education message is what is most effective. The more personal the communication, the greater the impact of the message. In attempting to influence human attitudes or behaviour, health educators should always be aware of the need to choose the most effective means of communicating with their audience. Never forget the importance of communication with people on a personal level, or that a radio programme is no exception.

A social worker in India leads community discussion of a radio broadcast on health.
CONCLUSION

The most important issue discussed in this review of Health Education by Radio is the enormous potential of radio as a medium of health education and health promotion in the community. As such, the impact of radio has not as yet been fully recognized by health and education ministries or other agencies in these fields, nor by health educators.

As has been demonstrated, health education programmes on radio are likely to be much more effective as a method of instruction and communication if they are developed by specialists from a range of varied backgrounds.

Above all, for these health education or health promotion programmes directed at the public to realize their potential, they need the full cooperation of the health and education authorities, as well as the political support of the national government. Without this, a powerful tool of communication is wasted.
BIBLIOGRAPHY


SUGGESTED READING


Available in English, French and Spanish. This is a manual for broadcasters who want to organize a programme on AIDS. Information is provided on the disease and suggestions are given on how to present the material. For instance, a question and answer format and a story-telling programme for younger audiences is described. The publication stresses the impact AIDS has on everyday life.


This publication explores the different functions of media. There is a specific emphasis on how to develop family planning awareness amongst the audience. The reader can use the publication as a manual, since it discusses in great detail the strategies and procedures for organizing a programme. Comparisons are made of the different media. This can be very helpful in trying to decide which medium to use.


This book describes case studies on communication technologies and discusses the model of technology transfers to developing countries. The countries focused on are India, Thailand and the Andean countries. The book is very technical, so the reader should have a background in broadcasting.


The book presents five case-studies of women working in broadcasting in Canada, Egypt, Ecuador, India and Nigeria. Suggestions are given on how to develop policy and organise programmes to facilitate the integration of women in decision-making positions in media communication.


This is a comprehensive book, which includes all aspects of communication. The subjects discussed include: regulations, statistics on communication, employment procedures, training and copyrights. It can serve as an excellent resource book.
The author, Mr Rackson Chitanda, is a Senior Health Education Officer at the Health Education Unit of the Ministry of Health in Lusaka, Zambia. He is the national project manager of the Zambia Health Learning Materials (HLM) Project, one of a network of country HLM projects collaborating with WHO's Interregional Health Learning Materials Programme based at WHO Geneva.

This document has been printed by the central clearinghouse on HLM in Geneva.

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