

International Nutrition Communication Service
(INCS)

CONSULTANT REPORT

for

COSTA RICA

(An evaluation of a nutrition education component of an
A.I.D. / Government of Costa Rica Health Care Project)

BY

Richard Burke, Robert Hornik - Consultants

Thomas Cooke, Richard Manoff - Manoff International

Submitted by
Education Development Center
55 Chapel Street, Newton, MA 02460
To United States Agency for International Development
Washington, DC

*This project has been conducted under Contract A.I.D. AN/ 2004, Office of Nutrition,
Development Support Bureau, Agency for International Development, Washington, DC.*

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INTRODUCTION

The following Report is an evaluation by two development communications specialists of a nutrition education component of an A.I.D./Government of Costa Rica health loan project. The Report identifies strengths and weaknesses of activities "to date" and suggests that certain programmatic and administrative changes occur before more funds are allocated. The Report also recommends ways in which basic social marketing concepts can be applied to improve work being done in Costa Rica in nutrition education.

Ron Israel
Project Manager
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CONSULTANT REPORT FOR COSTA RICA

I. Summary of Methodology, Findings and Recommendations

A. Purpose of the Visit

1. Scope of Work

According to the A.I.D. Scope of Work for the evaluation, the purpose of the visit was "to assist the Mission in evaluating the desirability and feasibility of funding further mass media efforts in nutrition education under A.I.D. Loan 515-T-026." The Scope of Work also included these specific tasks:

- a. Review the quality of work done to date in nutrition education under the project. This should include an analysis of efforts made to evaluate the impact of radio programs developed and prospects for their future continuation without A.I.D. funding.
- b. Review and evaluate appropriateness and feasibility of MOH/Division of Health Education plans for Loan funded nutrition education activities up until August 1980. Also evaluate future plans if an extension were to be granted to April 1981.... Evaluate the impact of loan activities on the MOH/Division of Health Education's institutional capability to carry out future nutrition education activities without A.I.D. funding. The evaluation should look at personnel as well as equipment.
- c. Evaluate the GOCR interest and the short term feasibility and advantages/disadvantages of shifting either the focus or implementing agency of loan funded nutrition education activities.

2. Previous Evaluation Studies

The evaluation was prompted by recommendations in a general loan evaluation completed in September 1979 by Elena Brineman (LAC/DR) and James M. Pines (New TransCentury Foundation). That report recommended "The Training and Nutrition Education components of the Loan should be terminated in August 1980, except for Component C-1 now used for training related to Participacion Popular en Salud...". The Mission did not agree entirely with this recommendation and suggested instead that "prior to phasing out this component, it is believed that an opinion of specialists in nutrition education/mass communication is needed--at a minimum to document why the program has been less than fully successful. Specifically the nutrition education component should be examined in depth to determine the feasibility of continuing the audio-visual and television education activities with the proper technical assistance or other identified support, or alternatively, discontinuing this activity and reprogramming the funds to other loan areas."

B. Methodology

Dr. Richard Burke, of Indiana University, and Dr. Robert Hornik, of the University of Pennsylvania, were selected as the short term consultants for this assignment. They were briefed in Washington by A.I.D. officials, and by representatives of Education Development Center and Manoff International Inc.

Drs. Burke and Hornik arrived in Costa Rica on March 6, 1980. Hornik returned to the United States on March 13 and Burke returned on March 15. During their stay they interviewed various Costa Rican and U.S. Government

officials associated with the project and also reviewed the project's radio print and audio-visual materials. Field visits were made to one community where a community Health Education Week was being planned. Files and reports were reviewed to determine the availability and quality of any evaluative studies done on the nutrition education component.

Before leaving Costa Rica, an oral briefing was made to the USAID Mission, and a summary of the findings and recommendations was presented.

C. Findings

1. The original ideal of A.I.D.'s support of an experimental and innovative educational project seems to have given way to a more conventional notion of simply producing and distributing radio programs and printed materials. No systematic procedures for tying these materials into a coordinated educational effort, or for assessing their effectiveness or impact, has yet been developed by the Health Education Unit.

At present, the Health Education Unit is primarily a materials production unit which stresses what happens in the studio as the central activity and downplays the other core elements in a program of social communication - audience analysis, program design, production and feedback.

2. There is little evidence that the ideas and opinions of Costa Rican health planners were included in the original design of the education component. As a consequence there has been a strong feeling within the Health Education Unit that the goals and activities of the project have been externally imposed on the unit, with little concern for their feelings, capacities and limitations.

3. The number of activities and the scope of each activity may have been too ambitious for a relatively inexperienced and understaffed Health Education Unit.

4. There is little evidence that health/nutrition information gathering and other activities, also funded under the loan, have been coordinated with nutrition education. The Instituto de Investigaciones en Salud (INISA), the Sistema de Informacion en Nutricion (SIN) and other organizations involved in information gathering have provided the Health Education Unit with relatively little useful information from the field that could improve programming and production.

5. The director of the Unit has been criticized on several occasions for not being sufficiently aggressive with the bureaucracy to accelerate processing of contracts and purchase orders. It is difficult to say if this criticism is justified or not. The director may indeed lack aggressiveness, but it is also possible that she has been working with an unsympathetic and unresponsive administrative system within the Ministry of Health.

In summary, the investigators found that the Health Education Unit has suffered from design problems from the outset--not of their own making--and thereafter from administrative and implementation problems that have distracted it from achieving its original purpose. While many of these problems may have been the result of ineffective administration within the Unit, many others were structural and beyond the control of any individual in charge of the Unit.

D. Recommendations

1. USAID should continue its financial support of the Health Education Unit in the Ministry of Health provided that:

1. The Unit's emphasis on materials production is balanced with an approach which links audience analysis, program design, materials utilization, and feedback.
2. Additional staff for the Unit be provided immediately to effect the change from a materials production unit to a development support communication program. A.I.D. should support these positions only if there is a commitment by the Government to continue its funding after a specified date.
3. If the Unit demonstrates progress, the Government of Costa Rica will commit itself to continued support. Concrete evidence of this commitment could be found in an agreement by the Government to purchase media time and hire additional staff as indicated above after a specific date, December 1980, for example.
4. USAID Costa Rica should maintain regular and substantive monitoring of this component. This entails a substantial commitment to the project by USAID Costa Rica, perhaps assisted by AID/Washington, and the funding should not be continued unless that commitment can be made.

2. The Health Education Unit should limit its activities by establishing priorities among them. The investigators recommend that the Unit should concentrate on radio materials, mastering the skills associated with the systematic use of this medium, and then broaden the program. This recommendation is based on the already considerable experience that the Unit has with radio, the apparent audience that the current programs have acquired, and the opportunities for linking this mass medium with the interpersonal contacts afforded through the national rural health system.

The Unit should resist the temptation to spend scarce resources on television at this time. The staff does not have a clear idea of how the proposed television programs should affect its audience, nor how these programs would be linked to the on-going education program. At some later date it might be appropriate to produce one or two experimental television programs for specific purposes such as promoting a health week or documenting village level activities.

Some print materials which support the nutrition content of the radio messages should be continued, and a greater effort should be made to integrate their distribution into the audience of the radio program.

The development of materials for which there is no clear plan of utilization should be postponed. This recommendation applies whether or not the materials are directly related to nutrition education goals.

3. If the Unit accepts relevant recommendations above for a more systematic approach to communication, and if USAID agrees to continue financial support, outside technical assistance will be necessary. Two advisers could serve for an initial two or three month period, followed by shorter visits every three or four months.

According to the investigators, the Costa Rican Government will welcome such assistance, providing that it is short-term. The specific purposes of the technical assistance should be the subject of conversation between the Mission and the Unit. In general, however, the assistance ought to focus on training members of the staff in social communications.

One adviser should be a specialist in audience analysis and feedback systems: the adviser should be skilled in basic social research

methods, be able to operate under the constraints of limited time and money, and be able to show the members of the Health Education Unit how audience analysis and gathering of feedback can be incorporated into the Unit's on-going and future activities.

Another adviser should be a specialist in program design, production, and utilization. The adviser should be able to teach systematic planning techniques for the use of mass media; be able to operate within fairly limited budgets; be able to assist the Unit in improving production techniques; and be able to help the producers see the usefulness of the information gathered in the field.

It also would be appropriate to use loan funds to support some of the direct expenses involved in the development of the suggested approach to integrate social communication. Given a substantial commitment on the part of the Ministry of Health to absorb such expenses if the Unit succeeds, the loan might support research expenses, some materials reproduction, and purchase of media time. It also might fund extra Costa Rican staff so as to free them to spend necessary time learning new skills, without unacceptable decline in production by the Unit as a whole.

II. Review of Specific Program Activities

The Health Education Unit is engaged in several distinct activities: radio programming, though the pace of this has lessened while a contract is being negotiated with Asociacion Demografica Costarricense* for recording and distribution; audio-visual modules, for use in health centers; print materials production, in collaboration with Asociacion Demografica;

*Asociacion Demografica Costarricense is a non-government agency responsible for family planning programs in Costa Rica. It has had a long history of producing radio and print materials using national and international funds.

Education Weeks at the community level; and health education training of nurses, environmental health technicians and others.

It should be clear that the Health Education Unit has many responsibilities beyond those associated with the nutrition program. It is a service unit within the Ministry of Health, more responsive to the requests of others, in many instances, than able to define its priorities. Nevertheless, the investigators found the need was paramount for planning and for making the education approach more systematic.

A. Radio Programming

The Health Education Unit has produced two series of radio programs: Platicas con Don Rafael, a talk/dialogue program broadcast twice daily, which features the character Don Rafael, a respected elder member of a typical rural community, and Voces del Pueblo, a program which consists of field interviews with rural listeners, and responses to letters that have been sent in by members of the audience. The programs have been fairly well produced; they appear to deal with appropriate material in nutrition education, and there is some evidence from letters, and from the initial data gathered by an INISA Food Habits and Listening Survey, that the programs have attracted an audience in the rural areas.

The Health Education Unit has contracted with the Asociacion Demografica Costarricense for the recording, reproduction, distribution, and media buying for these programs. The Unit selects the topics for the programs and drafts the scripts which are polished by the radio writers at the Asociacion Demografica. At the time of the evaluation visit, the pace of production had slowed while the Unit awaited a decision about the new contract with the

Asociacion Demografica. Voces del Pueblo was no longer being produced or aired.

There is room for improvement in these programs, specifically:

1. The producers of the programs should have a clearer idea about the learning characteristics of their rural audiences. They have made assumptions about what the audience already knows, what the audience needs to know, and how they learn, but these assumptions are not supported by sufficient data gathered in the field.

2. The program producers should have a better idea of how people are reacting to the programs, how they are changing attitudes and behaviors, and the extent to which the programs are complementing other aspects of health education.

3. There should be a systematic approach to production on a long-term basis. Program themes should be mutually reinforcing, rather than scattershot. Key ideas are not emphasized sufficiently, and there is no establishment and maintenance of a learning pattern which leads the program listeners to increased awareness or knowledge.

4. The field data gathered by the INISA Food Habits and Listening Survey should be more systematically interpreted, analyzed, and presented to the radio producers in such a way that they can make use of the data in planning program strategies and supplementary activities.

5. The receipt of letters from listeners is a positive sign of interest, but greater use could be made of the letters as a means of establishing program patterns and as a means of establishing more intimate contact with rural listeners.

B. Audio-Visual Modules

The Health Education Unit has prepared one 15-20 minute slide tape presentation for use in health centers. The plan is that this and similar materials would be viewed by mothers and others while waiting in the centers. This is a basically sound idea and the unit should be encouraged to continue working in this area.

The investigators viewed one module on the planting of home gardens. In its present state it serves a useful purpose as an awareness device, but it would have to be revised considerably before it is effective as an instructional material.

Setting aside for a moment the aesthetic and production values of the material, the investigators noted an even more important issue: there is no strategy for the utilization of these materials in the field, and of linking them to education and health services. Designers of these modules ought to ask themselves questions such as the following:

- What specific behaviors should the target audience learn from these modules?
- How does the content, format and tonality reflect other education materials such as the radio programs or the print materials?
- What assumptions are made about the availability of goods and services such as those for home gardens?
- What interpersonal activities are to take place at the time of viewing?
- How often are they to be viewed? Is there a need for print materials which will support their messages? How will these print materials be obtained by the viewers in the health center waiting rooms?
- Who is to maintain the machine and the materials?

- How will the audience reaction to the materials be monitored? How will the Unit monitor the use of the materials by the health centers?

C. Printed Materials

Several different regular publications are produced jointly by the Health Education Unit and the Asociacion Demografica Costarricense. In addition, the Unit is producing educational games and flip charts for the health system. The investigators were unable to find a clearly articulated plan for the integration of these materials with one another or with other services and education activities of the health system.

1. Salud Para Todos is a 100 page booklet produced annually for the past three years. In 1979, the only year for which a report was available, 100,000 copies were produced, and, according to interviews, the supply was exhausted quickly. The topics are diverse, covering infant and maternal nutrition, poisons, family planning, indigenous vocabulary, short stories, and instructions about farming.

The only reference in the publications to the radio programs is a listing of their broadcast schedule, now out of date. Apparently the content of the booklet is not repeated nor referred to in the radio program.

The booklet is produced for the general public, but it was not clear to the investigators how the booklet is supposed to fit into an overall communication strategy. Since there continues to be a heavy government investment in the booklet and an apparent demand, it is recommended that the Unit conduct a regular monitoring and assessment of Salud Para Todos.

2. Boletin, produced three to four times per year, is a four to six page newsletter. In 1979 four issues were produced: two issues were on

Participacion Popular and two on Educacion en Salud. The investigators did not review these publications and are not able to comment on their relevance to nutrition education goals.

3. Instructional games or laberintos are designed to be used in rural health centers. So far, the Unit has only produced two different games in the mock-up stage. It was not made clear to the investigators how the games will be used in the health centers, how the health centers' personnel will support the educational objectives of the games, or how the games will be evaluated.

4. Flip charts have been completed for use by health workers visiting individual families. Plans for distributing the flip chart, strategies for their use, and plans for evaluation of the materials were not viewed as an essential responsibility of the Health Unit staff.

D. "Jornadas" or Education Weeks

The investigators visited briefly La Paz, Piedad del Norte, the site of a jornada or Education Week. There was a spirit of community participation, representatives from the health center in the province of San Ramon were enthusiastic and well-organized, and there is good reason to believe that these activities will benefit the chosen communities in a number of ways. The investigators are not sure that members of the Health Education Unit will be able to organize additional jornadas on the scale which they anticipate, given their many other responsibilities, nor is it clear exactly how the benefits of these initial activities in San Ramon will be transferred to other geographic areas.

The Health Education Unit ought to continue to show strong support

interest in the planning and implementation of the jornadas, and members of the Unit should be encouraged to prepare support materials consistent with a reordering of priorities in the overall Health Education Unit's plans.

E. Health Education Training

The Health Education Unit offered twenty courses in 1979 on methods and techniques of education. This aspect of its work probably requires more staff time than any other. Participants in these courses included nurses, nursing students, environmental health technicians, nutrition assistants, health auxiliaries, and other people engaged in some aspect of rural health service.

The Unit has also provided consultation and advice in educational technology to other departments within the Ministry of Health on a less formal basis, and the unit has an active role in supporting the work that will be undertaken within the Plan Nacional de Participacion en Salud.

The Health Education Unit should be encouraged to keep up its work in offering courses and technical advice. It gives the staff visibility, it gets them out into the field to talk with rural health workers, and it gives them the opportunity to broaden their perspectives by working in a wide variety of contexts.

F. Summary

With regard to the specific observed program activities, it appears that the Health Education Unit has achieved a reasonable level of competence in the production of materials, but much more effort needs to be made to move the Unit from a limited view of itself as a producer of materials to a broader role as an educator and social communicator

which contributes significantly to the extension activities of the Ministry of Health. An important step in this direction will be to select priorities among the current activities. The Unit is expected to support a wide variety of health and nutrition goals, from long-term nutrition improvement to short burst campaigns for special interests. Without some selection among these demands, the Unit risks doing none of them well.

III. Discussion of Issues

In this section a discussion is presented of substantive and administrative issues which A.I.D. should consider in making its decision to fund the nutrition education program after August 1980.

A. What Is the Role of Education Within the General Costa Rican Nutrition Program?

Many of the people interviewed during the evaluation ranked education high as a factor which affects nutritional status in Costa Rica. However, the investigators were unable to find any research results which suggested how knowledge and attitude affected practices relevant to the nutritional status of at-risk groups. INISA and SIN studies in preparation might give useful answers to this question.

This information is important because nutrition problems resulting from a lack of resources are unlikely to be solved solely by education, while those which are the result of an inefficient use of available resources may yield to increased knowledge and changed attitudes. A major task for Costa Rican nutrition planners and educators should be to sort out the already

identified nutrition problems into categories which seem more or less amenable to education interventions. As information from the studies becomes available, analysis of these problems and the role of education can be done more knowledgeably. These studies will also assist in the detailed planning of the education strategies. Finally, and perhaps more important, the studies will permit rational decisions about the level of investments in nutrition education, as opposed to investments in alternative nutrition programs.

The lack of an explicit definition of the role of education programs in nutrition improvement may have already been a factor in the recent decision of the Ministry of Education to cut back its own budget for nutrition education activities. These decisions may be the result of dissatisfaction with a particular education activity or of general budgetary pressure which the government is feeling. Nevertheless, the absence of any policy framework which defines the specific role for education within the health sector handicaps those who would argue for continuing education programs.

B. What Is the Quality and Effectiveness of Existing Health Unit Programs?

The production quality of existing materials seems to be adequate. However, quality and effectiveness in social communication are complex matters: aesthetic satisfaction with a material on the part of the producers, or for that matter, on the special part of the audience who writes letters, does not necessarily imply behavioral change in the audience.

The Health Education Unit was unable to provide any evidence that its materials have had any effect on the health and nutritional practices of the target groups. From the investigators' experiences in other countries, such impact is unlikely unless the production of materials is carefully integrated

with other elements of a comprehensive social communication approach.

C. What Effect Can Continued Outside Funding Have on the Quality of the Program?

With continued outside funding the Health Education Unit can develop an improved strategy which takes advantage of the extraordinary health infrastructure of the country. Indeed, one of the most compelling arguments for continuing A.I.D. funding is the potential for integrating the education program into an appropriate place in the rural health system which reaches throughout the country.

In order for the quality of the program to improve to the point where it is likely to have an impact on nutrition behavior, the staff of the Health Education Unit will have to be open to move toward a more systematic and professional communication program.

To date, the group has seen its role as a production service. They take pride in their work, and argue that it is well done. The strategy which demands a systematic link between the field and the studio, between production and utilization, is not a strategy with which they are familiar; it is not one which will come easily, and it is not one that they now see as necessary to successful health education. Thus, its introduction will be difficult. On the other side, all staff members expressed substantial interest in evaluation, and showed enthusiasm for concepts related to systematic program design. They also accepted the need for short-term technical assistance in both areas.

If USAID were to implement the suggestions made in this report, and had obtained prior acceptance of these ideas from the health education component, we think the risks are acceptable. The risks should be taken because all the

other conditions are right: Costa Rica has an extraordinary rural health infrastructure; the radio programming has found a substantial audience, and the printed materials are apparently in demand. The possibility of turning a limited broadcasting strategy into a more comprehensive social communication program justifies the risk.

D. What Are the Consequences If Funding Is Discontinued?

USATD's decision to reduce or eliminate funding of the Health Education Unit will have substantial implications for the future of the Unit. Without A.I.D. funds, it is highly unlikely that it can make the needed transformation from the current approach to an improved strategy. A USAID Mission statement of no confidence would surely exacerbate doubts about the Unit's effectiveness--doubts which already exist in the Ministry of Health--resulting in further reductions in the Unit's budget. Any decision not to extend funding should be made with these consequences in mind. The greatest care should be taken in specifying the grounds for discontinuance.

Appendix I: Planning Health/Nutrition Education Programs:
A Suggested Social Marketing Frame of Reference for
Costa Rican Nutrition Educators

Throughout this report reference has been made to social marketing characteristics of health/nutrition education programs which increase their effectiveness. In this section four of these qualities are discussed. This is not meant to be an exhaustive presentation, nor does it mean to imply that, by following these suggestions, success is assured. Part of the understanding that accompanies sophistication in the field of communication and development is an awareness of the limits of education and information interventions in affecting behavior changes.

The four program elements discussed below are: audience analysis, project design and production, utilization and feedback.

1. Audience Analysis

Successful social communication begins with an accurate understanding of one's audience and its context. What behaviors are important and likely to be affected by educational interventions? How do behaviors fit within the social, cultural, and economic milieu of the community? What are current levels of knowledge and attitudes underlying a behavior? What are substantial numbers of people anxious to learn about? What educational activities by health workers are being carried out which could be effectively reinforced by mass media educational programs? How do education programs relate to health and nutrition service programs?

Each of these questions, and others that can be added, are essential in defining and maintaining an educational effort.

There are many ways to gather such information but to be useful to the program staff, the procedures must meet certain criteria. The procedures

must be systematic; letters from listeners are helpful but they only represent a special sub-population. Casual meetings in the course of field work can yield insights, but they are less useful in estimating the depth or extent of a given phenomenon. Information must be gathered from a sample of known representativeness, using measurement procedures which are similar for all respondents, and with interpretation rendered so as to reflect the range of responses, and not merely striking or interesting instances. The information must be gathered regularly, on the assumption that the situation is constantly changing as a result of the radio programs or other rural health services.

The information gathered should respond to what the production staff needs to know. The production staff must be trained as to how to define its needs and make use of field information and, at the same time, social researchers must understand that data is not gathered for its own sake. It is difficult in the abstract to define useful questions, and to develop research strategies that respond precisely to those questions, but the skills must certainly be learned to improve the educational component of the program.

Finally, the research must be done within restricted time and budget constraints. It is often painful to a social researcher to use small samples, to use measurement procedures that only approximate variables of interest, and to rush through the steps of data analysis and write-up. However, the alternative is to do nothing that helps and, therefore, such compromises must be made. With sufficient thought and experimentation with method, a substantial amount of useful information can be gathered within such constraints. One procedure might be to establish a panel of

forty villages. Every three months, ten of them might serve as sampling sites. At each site, ten to twenty women might be interviewed, along with the local health workers. It might even be possible to incorporate the local health workers directly into the information gathering system, provided they have some basic instruction in data gathering and interviewing techniques.

Information that is gathered directly in this fashion can be enriched, though not replaced by larger scale studies undertaken by INISA or SIN or other research agencies. Certainly the definition of appropriate research strategies would benefit from the advice and cooperation of those organizations.

2. Program Design and Production

In the initial stages of program design, health educators, content experts and research specialists from SIN, INISA, and other organizations should work as a team to sort out educational goals and to assess needs and communications strategies. They must put to practical use the information that has been gathered by means already described in the previous section on audience analysis. They should select major themes and educational objectives to be developed over a given period of time, and select educational objectives based on what people already know, and what they need to know. The Unit should choose the content and material to be communicated which will be most useful in helping rural people attain desired levels of information and practice.

Program design decisions will have to be made about the treatment of each theme--is it a recommendation of new behavior? What are particular obstacles, perceptions or problems that block adoption of new behavior?

How are the materials and messages related to one another? Are they mutually reinforcing and supportive? Are messages repeated in different programs in different formats? Do the programs follow a rigid sequence, are they modular in nature, or do they stand alone as individual program efforts? The idea is that the audience must be given a structured learning experience rather than a random collection of facts about health and nutrition.

When the program scripts have been written, the actual production will take place, probably in cooperation with the Asociacion Demografica, since the Health Education Unit does not have its own studio facilities. The two organizations have worked together cooperatively over the past few years on Platicas de Don Rafael and Voces del Pueblo, and there is no reason why this working relationship should not be continued. Specific contractual arrangements were made in the past to cover production services and costs of air time, and it might be beneficial to review these arrangements before the Health Education Unit signs another contract with Asociacion Demografica.

Whenever possible, the program designers from the Health Education Unit should be physically present during the rehearsal and taping of the radio programs, so that they can correct any misinterpretations that arise with reference to the script they have prepared.

On a regular basis, the Health Education Unit should be pre-testing programs with typical members of the rural audience. Unit workers should be trying to find out: if the vocabulary level is suitable; if the pacing of the program is too fast or too slow; if the information about knowledge level is correct or incorrect; and if there are any obstacles to comprehension of the message which the program designers had not anticipated.

3. Utilization

Members of the Health Education Unit need to anticipate the patterns of use of the programs and materials which they have produced. They need to know exactly how these materials are being distributed to health centers and how they are being used. In the case of the audio-visual modules, for instance, specific plans have to be developed for individual showings, group showings, and group showings with monitored discussion. They must know who will maintain the audio-visual equipment, how substitutions can be made when necessary, and how long it takes before rural audiences become tired of a given audio visual module.

Very little attention has been given to the formation of radio listening groups, and it is not at all clear how people see the relationships between the radio programs, the booklet Salud Para Todos, and the field activities that are now being developed by health workers in the province of San Ramon. The point, with regard to utilization, is that materials and programs will not be used simply because they have been produced and distributed. People must be helped to see the usefulness of these materials to their immediate problems, and field workers must be seen as an important and integral part of the total educational program.

4. Feedback

Information gathered about the current status of the audience serves as background for the definition of the educational intervention. A second information gathering function is the specification of how the intervention is working, including, but not limited to, its effects.

Confident inference from feedback data is more difficult than in the audience analysis work since it is difficult to credit a specific educational

intervention when there are a variety of complementary sources for the same information. Nevertheless, there are procedures that can be helpful.

In the first place, regular reporting about listenership and self-reports about the impact of specific interventions will help (e.g., "Did you listen to Don Rafael this week?", "What did he talk about?", "Was this new information for you or had you heard it before?"). Evidence that listeners can describe the behavioral implications of Don Rafael's advice would also help.

Similarly, evidence that regular listeners to Don Rafael know more, and are more likely to act in recommended ways than non-listeners, particularly if background factors can be controlled, will provide additional confidence in the effects of the program. This sort of evidence can be gathered as part of the audience analysis procedure suggested above.

In addition, it may be worthwhile, on occasion, to mount more definitive validation studies. This may entail using a local radio station for a short period of special broadcasts, so that comparisons can be made with areas not receiving the broadcasts. It may mean focussing on a theme not concurrently addressed on complementary educational channels, and looking for sharp increases in knowledge or behavior at the time of the broadcasts.

Most of what was said about audience analysis--that methods must be systematic, responsive to production needs, and complemented within difficult time and budget constraints--applies to the gathering of feedback as well.