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9. ABSTRACT  
A second volume of the study listed above, it discusses elementary and widespread problems in developing countries and then proposes approaches and strategies which seem relevant. Learning new behavior, an essential in a dynamic situation, is discussed broadly, but with emphasis upon basic education, nutrition, and family planning. Problems, priority program needs, and strategies relating to Columbia, Indonesia, and the Republic of Zaire are outlined, including specific communication media applications to circumstances described.

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ACADEMY FOR EDUCATIONAL DEVELOPMENT

**Strategies for the Use of Communications  
Media in the Technologically Developing Nations**

**Volume II**

**Joseph B. Margolin**

**Report Number Six  
1973**

**This report has been prepared by the Educational Policy Group, Program of Policy Studies in Science and Technology, The George Washington University, on behalf of the Academy for Educational Development under Contract No. AID/csd-2829 for the Office of Education and Human Resources, Bureau for Technical Assistance, Agency for International Development.**

Section 220 of the Foreign Assistance Act of 1970 directs the U.S. Agency for International Development to undertake a wide array of activities aimed at assisting the developing countries in their use of communications technologies for education, agriculture, health, and community development. The technologies consist of radio, television, programmed teaching systems, computers, and communications satellites.

To carry out some of the activities mandated under Section 220, AID has contracted with the Academy for Educational Development to direct scientific research on the use of educational technology, to assess educational effectiveness and cost implications of various alternative communications systems, and to develop ways of applying electronic communications systems to agriculture, nutrition, population, and community development.

This report is one of a series prepared by the Academy and its subcontractors for AID under the terms of the contract. The reports in this series include:

1. Research and Development Priorities in Instructional Technologies for the Less Developed Countries
2. Research and Development Priorities in Instructional Technologies for the Less Developed Countries: A Summary
3. Alternative Communications Systems for Education in the Less Developed Countries
4. Broadcast Satellites for Educational Development: Possible Key Policy Decision Points, 1973-1978
5. Broadcast Satellites for Educational Development: The Experiments in Brazil, India, and the United States
6. Strategies for the Use of Mass Communications Media in the Technologically Developing Nations: Basic Education, Family Planning, and Nutrition
7. Communication Strategies for Agricultural Development
8. Communication Strategies for Development: A Summary
9. Technical-Economic Considerations in Public Service Broadcast Communications for Developing Countries

VOLUME II

STRATEGIES FOR THE USE OF MASS TECHNOLOGIES  
MEDIA IN THE TECHNOLOGICALLY DEVELOPING NATIONS

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Note: Each section contains a detailed table of contents.

STRATEGIES FOR THE USE OF MASS COMMUNICATIONS  
MEDIA IN THE TECHNOLOGICALLY DEVELOPING NATIONS

SECTION A: BASIC EDUCATION, FAMILY PLANNING  
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## FOREWORD

Since learning principles, as well as the processes involved in learning through media, underlie strategies for the three subject areas of this report - nutrition education, family planning and basic education - the education section is presented first. Conversely, significant elements essentially addressed to education are so fundamental to the whole media education process, that they are discussed throughout the general strategies section, as well as in the chapter on small technologies prepared by Dr. C. Ray Carpenter.

The education section, then, will discuss learning approaches applicable to the acquisition of basic education, of nutritional and of family planning skills. This is not to suggest, however, that learning means merely acquiring information about these skills. Learning here, and education, are used in their fundamental and dynamic sense of developing tools for living. Behavior change - as well as knowledge, as well as attitude and value factors - is an organic part of the learning process. This is true whether that behavior involves calculating or cooking, reading or reproducing as one sees fit. Indeed, knowledge and behavior can be separated on paper better than in reality. We modify our attitudes, shape our decisions in life and learn far more in the doing than in the preliminary process of acquiring information about what we might do.

W.T. & P.

**BASIC EDUCATION**

## INTRODUCTION

### The Learning Needs of Rural and Urban Poor

The people of technologically developing nations, whether they come from countryside or town, whether they live out their lives where they were born or migrate from village to city or from town to town, must deal with the changes confronting peoples whose societies are both expanding and industrializing rapidly. These people face change at a pace and to an extent for which all but the most advantaged are often unprepared. For many, the lack of change seems to endure and the force of tradition remains strong, yet eventually the confrontation with the political, economic or technological power of the changing world is demanded. Often it is a benefit of the new science that produces the confrontation as when medicine's lifesaving capacity changes the balance of life and death.

In Indonesia, in Zaire and in many parts of Colombia, large groups of people live in relatively isolated rural areas, or in urban slums which have built up within the past generation. These people vary widely in culture, but they often share one characteristic. They are comfortably skilled at many traditional tasks, such as farming as it has been carried on in the past or local trading, but their lives have not prepared them to adapt easily when confronted with the need to learn the new - whether this involves new agricultural techniques, community management, or other activities. Most are totally unprepared for earning a living and otherwise managing their lives in cities - cities which attract them increasingly, and where many stagnate

in the unskilled labor pool, even when more demanding jobs may remain unfilled.

A core difficulty is that the more variation in life with which one has experience, the greater the capacity for coping on the part of individuals, of families and of communities. Yet many come from environments which have provided highly limited kinds of life experiences, and in which any formal education ends early. These people have two closely related needs: learning the specific skills (rural or urban) required in an increasingly complex society; learning the flexibility needed to adapt to evolving economic, occupational and social situations rather than relying on the familiar and the traditional as modes of coping.

Educational programs alone cannot provide all the necessary experience. Broad social readjustment must take place over time for a people to develop themselves and their nation as they see fit. Education, however, can be a powerful lever, and as the mediator of skill development of all kinds, it is central to the development process.

#### What Basic Education Involves

The range of skills needed to deal with social complexity and change is wide, but in a general way it can be divided into three types. These overlap to some extent and they interact continually in practice, but distinguishing them may help to clarify the place and functions of basic education.

1. Basic capacity development which includes fundamental perceptual and cognitive skills, as well as the motivational readiness to develop and use them. It also includes the skills of learning to devise, absorb, judge and use the new - of learning to learn.

2. Functional behaviors and skills require for important practical matters, such as learning a construction trade, providing good nutrition for the family, or how to plan for a desired number of children. Once acquired, these skills can be used in a wide variety of settings - they are not tied to one specific situation.
3. Situation-specific skills. Learning, for example, how to improve the yield of a given crop in a given area, how to deal with the transportation system in a particular city, or to use a specific contraceptive device.

Most informal education programs in both technologically developing and in developed nations involve functional and situation-specific skill training--mothercraft nutrition centers, job training, community development programs, literacy classes, etc. These approaches are entirely appropriate and necessary, but they may meet with little success if it is merely assumed that the "learners" have developed those basic capacities that are required for the desired learning. Serious problems will continually arise for those people whose underlying matrix of basic capacities, from language fluency to an understanding of measuring tools, remains thin while life in their societies continues to change and to demand more and more sophisticated functioning. Solutions lie neither in de-emphasizing functional and situation-specific skill training, nor in ignoring basic education needs, but in the strategy of providing basic education through both.

Not the least important reason for this strategy is its educational rationale: providing "basic education" in a vacuum - drills in tool manipulation, counting, etc., removed from the context of visibly practical use - produces more boredom and frustration than learning, as certain U.S. programs have sadly demonstrated.

The relationship between perceptual, cognitive and motivational

factors on the one hand, and the ability to acquire such functional skills as effective job-seeking in a new place on the other, are both complex and culture-determined. The strengths and gaps in the background of particular subgroups of national populations need to be assessed when and as programs geared to these groups are designed. The Colombian barrio dweller will have different educational needs than the Indonesian farmer or the new arrival in Kinshasa's Cité. And the single most consistent difference found in thinking styles and skills around the world must always be taken into account: that between rural and urban peoples, or in the case of the new in-migrant to the city, different effects of the rural and urban settings on learning.

Nevertheless, many basic elements fundamental for all people are clear. They form an interacting cluster of complementary skills which include the ability to grasp and employ certain fundamental concepts, linguistic development, the use of tools and the understanding of visual as well as verbal symbols. The following list is not meant to be exhaustive, but presents examples of these critical basis skills.

- an accurate grasp of numbers, distances, weights and time
- the use of basic tools such as levers and the wheel
- the use of all kinds of measuring tools, including clocks
- understanding the combination of parts and simple tools into more complex machinery
- the ability to think abstractly: to label things, grasp their functional relationships, and understand their similarities as well as their characteristic differences or uniqueness.
- Language development: learning the standard language of the nation to an effective level. This involves, for example:
  - ability to pay consistent attention to the spoken word
  - memory training
  - relating ideas in words in addition to expressing direct needs only
  - changing repetitive, vague speech habits to more elaborated and precise expression
- visual literacy: the ability to perceive through and understand

pictures, both still and motion pictures; the ability to understand symbolic as well as realistic visual presentations to the extent that such effects are part of the nation's advancing culture and part of international culture, especially in newspapers, movies and television.

The Behavior Setting for Learning: Critical Requirements

Human beings do not learn in a social vacuum. The social conditions of learning behavior context are crucial. Primary among them is that basic education should begin as early in life as possible in order to avoid the cumulative deficit which builds a growing road-block as remedial attempts are made later and later in life. The social part of learning, however, is important at any age. It is not enough to feed information or rules to youngster or adult. The "we teach, they learn" notion is unrealistic. The learner must participate actively in the process. He must expect to be successful and find this expectation in those around him, as well as feeling the success rewarding. He must be comfortable enough to go through a trial-and-error process, to experiment with what he is learning and make mistakes, then go beyond them. Furthermore he needs a model: a person or group to identify with, imitate and learn from ranging from early imprinting to the emulation of complex social process. He needs to be convinced of the worth of what he learns, both in the sense of how much it is respected by others, and in the sense of seeing it as relevant to his own life and needs. Part of this sense of worth is derived through his model. Finally, he can rarely do without the encouragement and approval of his community in order to learn well. He may make many distinctions about just whose opinion matters when it comes to family

health or farming methods, to schooling or to what he eats, but he does not learn well without social support.

In the case of people unfamiliar with the learning process, this social support will need to be more than general community approval. Most learners who are new at it do not learn well alone. They need the structure of a group program, the encouragement of others learning along with them, and the group's orientation to the task at hand in order to maintain interest, pay consistent attention, stay with a difficult task, etc. Group discussions, practice sessions and work correction (rather than individual work correction by monitors) are possible tactics.

An important media implication is that home broadcasts geared to the individual on the model or television courses are not likely to be useful for such people unless they are combined with a teaching center program or family activities. Home broadcast alone for the totally unschooled may be very useful, however, for announcing services, and for indirect teaching approaches (e.g. dramas in which part of the story background is that mothers all teach their children to count and to tell time.)

In summary, then, basic education for the adolescent and adult is best taught through desirable functional skills, such as literacy, job training, mothercraft center work. Basic education for the pre-school and other young children can be taught somewhat more directly, but needs to be embedded in activities considered appropriate for the child: broadcasts to entertain and teach youngsters at home, educational games to play within the family, educational day care center activities, etc.

The Special Place of Literacy:<sup>1</sup>

A word needs to be said about the place of literacy in basic education. In itself, literacy is a valuable functional skill which allows the peasant to take advantage of more sophisticated agricultural and marketing techniques, the shantytown dweller to obtain a semiskilled job because he can now read directions, and allows both to participate more fully in the life of the country and its culture. But it is more. The man who can read, write, and calculate even minimally acquires a status which nothing else can confer. With it he builds a self confidence and sense of mastery which speeds any other learning he attempts. Learning to read and write is also a powerful way to develop abstracting abilities and mental flexibility, since it requires dealing with concepts, relationships and actions in the absence of the concrete thing or situation. Finally, literacy in particular and education in general are almost universally held by governments and people alike as the only road to economic and social improvement. This attitude amounts to a social force in the world today which cannot be ignored. Literacy alone is not a magic answer to all the gaps in basic education. Learners cannot always sustain their motivation if reading and writing seem to lead nowhere in the immediate future. It may not be the prime priority at a given time and place. But its potential for improving people's lot and outlook indicate that all programs understood as "literacy" are worth constant consideration, both for the worth of literacy itself and as a vehicle of basic education.

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<sup>1</sup> Includes reading, writing and arithmetic following the United Nations definition of literacy.

The Role of Communications Technology in Learning for Rural and Urban Poor

Potentials: Modern communications technologies have enormous potential for basic education and other developmental efforts when they are used judiciously - that is, in sensible relation to national economic realities and development priorities, and in harmony with the cultural and cognitive needs of a people. From telephone to television, from motion pictures to slides to radio and tape recorders, they can bring certain specific advantages to educational programs. These include:

- general attention getting (via announcements of services, or when carrying part of the substance of teaching).
- helping to build the behavior setting for learning
  - as an important focal point for basic education programs. This same function is also filled by setting aside a special time and place, but the vividness of media, its comparative scarcity and high status in many nations, and the remote source of broadcast from the listener can be powerful reinforcers along the same lines.
  - as a strong signal for learning: Just as the blackboard and the workbook can be signs for switching mental gears to a learning mode, so pictorial and broadcast media can help accomplish the same shift. With broadcast, more structure is provided than otherwise, since the timing is set at a central point, occurs regularly, and a major part of the learning session is paced. The importance of learning is thus emphasized.
- as a motivator. For field workers, continuous in-service training can be provided, especially by two-way systems such as short-wave radio. For the whole community, the interest of a regional and/or central government in filling needs which have been massively unmet provides potent encouragement to learn as programs are maintained over time. This interest is made manifest daily, and in a particularly striking way by the use of modern communications technologies.

- helping to end the sense of isolation in both rural communities and urban slums by making the people there conscious of their participation in the regional and the national community. Both the actual acquaintance with a larger world, and the process of feeling "tuned in" or part of that world are effective factors in basic education in particular.

- providing a central core of program material allowing reliance on less extensively trained field workers. This approach is effective when the core curriculum (broadcast, AV materials, workbooks) is combined with in-service contacts with that field worker. These might include broadcast training sessions just prior to the classroom broadcast; correspondance; refresher sessions at a regional center; other regular two-way communications distinct from judgmental inspection tours.

The central core approach is particularly effective when a limited amount of basic core material is provided, to be used in conjunction with locally devised text supplements, workbooks, pictures, and work problems. The local materials allow for cultural fit and "hands on" experience. The need for cultural fit can make or break a program - for instance where farm people react against agricultural materials which misrepresent the realities they know. The resulting scorn merely produces dropouts.

- bringing special AV aides (slides, films) to the classroom where TV or visual-telegraphic media are available without the problems and costs of physical distribution. This learning advantage is somewhat limited because of the passive nature of merely

listening and watching slides and films but it is an advantage nevertheless. However, care must be taken that the pace and type of presentation is culturally comfortable, or chaos rather than information can result. For example, many rural and urban Africans do not adjust readily to motion pictures. They prefer and need stills or slowscan images which they can examine closely and discuss. For any audience, when pictures of totally strange objects do not include a background of familiar ones to give clues to size and use, not only the grasp of the particular picture is lost. The learning process itself is hindered as energy is uselessly devoted to understanding the picture. Nor are aesthetic photographic distortions or cartoons understood among people who have had little realistic pictorial experience on which to base an understanding of artistic distortion. Exporting such Western photographs and drawings can cause serious problems even for the otherwise highly educated, including university graduates - a finding which suggests that the critical perceptual learning may occur in childhood.

The net effect of such misunderstandings on the learner or audience is a buzzing confusion which can lead rapidly to discouragement and over time to a consequent damage in ability to learn through media. The underlying perceptual and cognitive habits of learners have been little investigated. Research on the visual literacy characteristics of any given population is therefore suggested prior to the use of all pictorial aides, including television. In particular, the assumption that American or European films and slides will be suitable is unjustified.

Furthermore audio and visual aides in the learning center, like all program materials and curricula, need to be adapted to national - or even local - cultural tastes. In addition to visual literacy characteristics, this includes:

- fantasy preferences
- adult tastes for story telling
- color and other symbols familiar in the culture

Sheer translation of foreign programs or materials will not do. The Indonesian villager will continue to prefer his shadow play format... the Zairian his radio poetry readings, etc.

- setting an example of skilled teaching for the aide, provided his own role is clear, real and comfortable. That is, provided he is not "usurped" by the broadcast teacher nor is tempted to usurp him. A clear delineation of cooperative roles is critical.

- bringing in a new broom to sweep clean where and if prior nonmedia programs have been inadequate and not subject to effective revision. This catalytic use of media applies most notably to broadcast. The very magnitude of mounting radio or television programs and their special status can provide the occasion for program reform and redevelopment and the bringing in of new experts, as long as both the educational situation and the program costs justify it. Because of the high cost of both broadcast equipment and programming, this is likely to be economically reasonable only when the educational broadcasting can "piggyback". That is, when it can be delivered via new or existing regional communications systems which have other uses, and which satisfy other important priorities at the same time.

Italy's highly successful television series to eliminate illiteracy in her poor south is a good example of the appropriate catalytic use of media (1). Here, the literacy programs which had been effective elsewhere in the nation were failing massively despite intensive reform efforts. The interest of the adult rural population could not be caught. An existing television network was used as the vehicle for a complete redesigned program carefully geared to the special interests of the southern farm populations.

Myths: The above are some of the educationally important things communications technologies can help accomplish when judiciously applied.

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(1) The Telescuola program: "Non e mai troppo tardi" (It's Never Too Late)

However, the media also have many limits which go unrecognized frequently enough to merit special discussion. The following have all assumed the proportion of myths at various times, myths which lead to disenchantment with potentially beneficial tools for educational improvement.

The inevitable high quality of educational technology: In an exaggerated form this might be expressed, "If it's broadcast it's got to be good". The notion that whatever someone has gone to the effort of putting on the air must be worth using is sharply contradicted by the serious difficulties encountered by many formal and informal educational technology programs in every part of the globe. Modern transmission techniques by themselves do not provide effective curricula and healthy learning environments. The promise without the delivery can be harmful.

The educating speed of technology: Instant education does not appear like instant coffee when the receiver or the AV presentation is turned on. (Just add attention and drink.) Education, through whatever forms of communication, requires developmental time, complete with the lengthy but necessary processes of: program planning; teacher or worker training and retraining in both subject matter and in use of the media; pilot testing; shakedown time during implementation; feedback of effects and re-evaluation of programs; re-design; continuing evaluation to permit adapting goals, programs and techniques to changing conditions. This myth has been all too current even in "enlightened" regions of the U.S..

The economies of educational technology: In education, machines supplement people, but they do not substitute for them. Savings can indeed be realized, but these are most often savings in quality rather

than quantity. The effective field of influence of the talented teacher or program planner can be multiplied by the use of radio... television...modular audiovisual and workbook units... Less extensively trained field workers can then be relied on. More of a nation's people will begin to be educated in that matrix of cognitive and perceptual skills needed to bring a country further along its developmental path. However, absolute costs for education are more likely to go up than down when educational technologies (broadcast or not) are widely used.

The appropriate statistic of comparison would be the amount it would cost to mount the same effort without technology at all (in educational technology planning no one has contemplated this seriously). Another appropriate comparison is between types of media programs, such as costs of television vs. radio vs. motion pictures and slides. Here field worker training and materials distribution must be included as well as the equipment costs; dissemination, as well as pilot program, costs should be assessed and re-assessed from the start of the first planning phase to avoid the waste of the unusable pilot success. A further estimate has been mentioned above: the lower cost of "piggybacking" educational programs on existing communications systems, rather than building the system for the teaching. In any case, the assumption that educational technology lowers educational costs in a simple and direct ratio is normally unwarranted.

The automatic teaching power of technology: The idea that the media alone carry the "real" burden of teaching is paralleled by the myth that the field worker or teacher is so crucial that he must be

highly educated and must always intervene between student and medium. Yet many learners can work directly from the machine when parts of an educational program are well designed (e.g. writing a story based on themes just broadcast to a literacy class). No unsophisticated learner, however, survives long without the encouragement, the model and the interaction that only another person or persons can provide. Furthermore, not only the ultimate audiences are "unsophisticated learners". The field worker is also one, and one with a more complex learning task. He is learning how to teach, as well as what to teach. He too needs a model and the opportunity to explore techniques, continuing moral support and feedback about this achievements. And he particularly needs these in how to use the technology, as well as in the subject matter he teaches.

The teaching prowess of the picture: This combines with the myth of the teaching power of technology to form a new methology - the omnipotence of television. Pictures are indeed a rich learning aid (although not as rich as real, or "hands on" experience). But if one picture is worth a thousand words, and a series of pictures is even better, one thousand pictures (on videotape or not) is still not the same as educational heaven. Some of the most critical educational reasons for taking care with how pictures in any form are used educationally are:

- they must be carefully adapted to the cognitive style and visual literacy of the learners. Human beings are not homogenous, even within nations, in these characteristics.
- the very richness of television and film can confuse the pictorially naive viewer by excessive input of stimuli. (A welter of rapidly shifting images portraying the strange dress, buildings and activities of the city to the isolated villager...magnifications and close-ups flicking by, whose speed and size combined distort everyday objects beyond recognition.)

- picture, film and TV viewing by themselves are passive, while learning takes place largely by active exploration. They can be designed to lead specifically to active work and to blend with it. They focus attention, help memory and motivate by their fascination. But they cannot substitute for the learner's own active involvement and they do not, by their very presentation, guarantee it.

Pictorial modes should not be abandoned because of their limits, since their value remains rich. Nor should they be relied on to do what only the learner and his interaction with others can accomplish.

The magic carpet ride: Finally, there is the temptation is to copy a successful media effort from another region or nation without adapting it to local needs and conditions. The myth is that success is firmly embedded in something called "the program" which can be transferred on a magic carpet to a new place where it guarantees educational success. The temptation to ride this carpet can become overwhelming if there are great pressures to improve or extend education rapidly, combined with little educational media experience.

The positive parts of the myth are the appreciation that valuable goals have been attained, and a constructive desire to take advantage of what has already been developed. The difficulty, however, is that the conditions of that success have often been little considered and less understood, while at the same time those conditions are not likely to exist ready-made in the new nation or region. Yet the pull of the radio forum, of the child's television program, of the agricultural extension service with its county agent and radio broadcasts, all can seem full of the bright promise of the shortcut: that the hard, expensive work of adapting to local behavior settings, and the long

process of training personnel to devise programs and techniques suited to the culture, can be bypassed.

The real promise is bright indeed, but it is a different promise, and somewhat slower of fulfillment. Successful programs can be mined for their essential factors, and for the way in which they suit institutional realities and audience behavior settings. A "Sesame Street" format, for example, can teach certain specific skills to a rotating audience of young children when these youngsters are used to highly sophisticated TV entertainment and have continual easy access to television. The "Radio Sutatenza" model is rich with adaptable elements - not the least of which are the enthusiasm of management (beginning at the top), the backing of a financially and administratively strong institution (here the Catholic Church), and literacy followup in the form of a journal written in a new-literate's vocabulary and geared to the farmer's practical interests. The very success of the U.S. Agricultural Extension Program is based on there being no single program. The selection of end role for agents, the type and timing of broadcasts, in fact all critical elements vary almost from county to county. They were built empirically over time to suit local demands and local ways. Administration is centralized only in the most formal and least substantive sense.

The Messages of Myths: Yet, there is an advantage to be gained from all these myths. When the magic carpet myth arises, a good deal of consulting work is

already accomplished in advance. The nation or the ministry or other institution wants to achieve comparable educational goals, and is ready to profit by the experience of others to do so.

This is true of all the communications technology misperceptions which have been described. Each contains much that is valid combined with enthusiastic interest. Each can provide a leverage point in the process of working with nations and within nations to devise effective solutions to educational problems. The consulting task, then, is neither to debunk myths, nor to let expectations inflate until inevitable problems produce wasted energy, time and money - sometimes with loss of hope for retrieving a program when learner interest has died and personnel have become demoralized. The task is rather to offer an informed point of view which acknowledges and profits by the problems as well as the potentials of communications technologies.

It means suggesting media and program strategies which suit national realities, and which are adapted to decisions taken at key policy decision points and to the factors influencing those decisions:

- actual and planned communications systems
- manpower requirements
- population migration patterns and policy
- industrialization plans
- rural and urban cultural characteristics
- national educational and other program goals
- local job opportunities
- local educational, family planning and nutrition services available

The messages of myths are roadmaps with which to begin the consultation process.

The Role of Communications Technology in Learning  
For Rural and Urban Poor

Potentials:

- General attention-getting
- Helping to build the behavior setting for learning
- Helping to end the sense of isolation in village and urban slum
- Providing central core of program material
- Bringing special AV aides via television
- Setting example of skilled teaching for the aide
- Catalyst of media to upgrade program quality where situation & costs justify

Myths:

- Inevitable high quality of educational technologies
- Educating speed of technology
- Economies of educational technology
- Automatic teaching power of technology
- Teaching prowess of the picture: the omnipotence of television
- Magic carpet ride: the unadapted foreign educational technology success

Messages of Myths: Roadmaps and leverage points for constructive and realistic consultation.

## BASIC EDUCATION STRATEGIES

### Factors Which Shape Strategies in Basic Education

Those Colombian, Indonesian and Zairian goals which might be achieved through basic education programs have been articulated by various sources with somewhat differing emphases.<sup>1</sup> While it is true that precise operational goals will have to be determined in conjunction with specific programs designed for specific groups, some main points are offered as a framework in which to consider the educational strategy alternatives of this report.

Present educational policy priorities in Zaire and Indonesia center around learning the official language of the nation, and civic education. Zaire adds training at the skilled labor level (electricians, etc.) and Indonesia, its own unique blend of philosophical and religious education. In Colombia, the overall goals appear to be for factory skills and for rural skills of all kinds (including farm support services such as retail trade, agricultural products marketing, construction, mechanics, carpentry, etc.).

From the point of view of the people to be taught, basic education is needed:

- when large urban and rural groups are not reached by schools at all
- where children begin school culturally unprepared for the experience
- when city in-migrants are unprepared for coping with their new community or lack the basic skills needed to take advantage of urban employment opportunities and training
- when villagers need to develop hitherto neglected basic capabilities in order to adapt to new agricultural methods and other development changes in rural life.

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1. For Colombia and Zaire, the passage which follows is based on observations and interviews with national government and with educational personnel conducted during the site visits of the study. Indonesian priorities are inferred, largely from written sources, since a site visit could not be made. Educational goals shift in any one nation with changing conditions, but those mentioned for Indonesia should be considered particularly tentative.

Carefully balanced and integrated planning is required to fill these educational needs while serving national educational policy without endangering the social fabric. The key policy decision points - what numbers of people to be educated? to what level and where in the nation? - will need to be consistent with nutrition and family planning policies, but also with job opportunities, migration patterns and policy, and economic development plans. Achieving a critical level of basic education for reaching national goals is a delicate process.

The social strategy is to educate to a level where basic skills can be useful while avoiding inflated expectations which will explode in frustration and anger, leading to destructive population drifts or uprising. The educational strategy is to increase the range of the individual's experience to a point where learning input is meaningful, but to stop before it becomes confusing.

Taking into account the nature of the country's economic realities will provide guidelines for how much mathematics the road worker does need in mountain areas, or how much understanding of marketing is truly useful to the farmer of one region, the farmer of another. The optimal strategy is one of just enough: to educate just enough to let people and their communities function in a gradually improving society. Within the range of desirable skills, a flexible baseline of achievement should be established which will be raised or extended over time as the economic, technological and educational situation in the society demands and provides.

	MEDIA	MODES
<u>Auditory:</u>	taped radio	<u>Hearing</u>
<u>Visual:</u>		<u>Seeing</u>
<u>Picture:</u>	television radiovision (slow scan methods) films slides	
<u>Print:</u>	drawings and cartoons printed work	
<u>Tactile:</u>	<u>Learning aids for "hands on"</u> experience: workbooks, writing materials, nonverbal books, plastic contour maps, etc. <u>Real life materials for practice:</u> food to cook, radio sets to build, newspapers to read, slides to make and project in learning to work with media, etc.	<u>Touching</u>
<u>Smell-Taste</u>	Some real life materials: food, plants, etc.	<u>Tasting, Smelling</u>

### Media-Mode Strategies

As Dr. Carpenter points out in his chapter on small audiovisual technologies, distinctions are unfortunately seldom made between media (radio, for instance) and modes (e.g. sound) in planning educational uses of communications technologies. (See the table on the facing page for an illustration of these distinctions.) Yet from the point of view of the learner, the distinction may matter a great deal, especially in terms of how active a role the learner is allowed.

Learning can, and often does begin with merely seeing or hearing, but it is completed by the active work of the learner, that is by exploration, by trial and error work, by "hands on" experience with materials. As Piaget<sup>1</sup> has pointed out, "There is a verbalism of the image just as there is a verbalism of the word". Just as the learner can be lectured at - even on the radio - so can he be "pictured at" with a slide projector or television. Even a cartoon booklet has less potential for such lecturing, since the user handles it, flips pages at will, looks at what he wants to. This lets him do what he needs to in order to learn - to use his own sense and brain in an active way. When, on the contrary, he is a passive observer of films, a passive listener to a radio broadcast or a lecture, he is likely to retain relatively little.

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1. Piaget, Jean: "The Science of Education and the Psychology of the Child", Orion Press, New York, 1970, p. 74.

This is a prime reason why well meant efforts to skip the expensive process of setting up learning centers, training field workers, etc., often fail. The failure occurs, not because learning is impossible through the media outside of learning centers, but because the program has been designed so that the "learner" is left mainly a passive and observing role. Broadcast programs unaccompanied by other materials are particularly vulnerable here. The more primitive the learner, the less skill has at the process of teaching himself new things, the more serious the problem becomes. It is harder for the village housewife to learn good food choice habits from radio programs alone, than for the college student to learn chemistry via the same medium. Furthermore, the primitive learner needs consistent personal encouragement over time both since his task is hard and since this is necessary for his continued orientation to an unfamiliar process.

Basic education and other functional skill programs set up for rural and urban poor populations inevitable mean starting from a low knowledge base in terms of where the learners are. Not only new skills, but new classes of skills are being learned; not only new classes of skills, but the very experience of learning how to learn new ways. The special media strategies devised to ensure effective learning for such people will therefore need to be characterized by:

- the chance for the learner to work with materials; to explore, to make mistakes and to go beyond them;
- a real model to learn through - someone who is successful at the skill (cooking or reading or whatever) who can be imitated, talked with about problems and who can help develop solid expectations of success in the learner.

- large amounts of personal encouragement provided consistently over long time periods.
- well planned follow-up help in practicing the new skills (whether agricultural methods or health practices or using tools)
- assurance of a stable learning situation - that is of program continuation over time to avoid confusions and frustrations on the part of people who have few, if any other ways to gain the same ends.

One strategy is to assemble learner's in groups, whether in specifically learning centers (such as mothercraft centers discussed under nutrition education), or in less formal settings such as men's clubs (see Volume IV, Zaire strategies) or scout groups (described later in this section and in Volume IV). Here the media forms the core of a program, while the effectiveness of the few skilled educators, nutritionists, etc., available in a TDN is multiplied. At the same time, an economically appropriate labor-intensive approach is achieved because many aides and field workers are involved. These personnel then provide some of the personal encouragement and the models which are required. At the same time, the learner also has the support and encouragement of the group, both to keep his attention focused on what he is learning and to make the learning situation more comfortable.

Another strategy is to use broadcast to the home combined with follow-up materials. This strategy can include later work at a center (see the re-education for working adolescents described later in this section). Alternatively, home broadcast can take advantage of the group already in the home - of the family - for cooperative learning (see home broadcast strategies described later).

A special word should be said here about a further home broadcast strategy, learning through entertainment. Throughout Volumes III and IV mention is made of the indirect learning and attitude change that can be assisted by soap operas, radio dramas, etc. Because the "learner" is not engaged in any new or difficult task, he does not need the support of the group. Because the learning goals are limited and supplemental, careful follow-up may not be an essential part of the strategy. Models to imitate are supplied by the characters in the drama. However, it is notable that American entertainment programs to teach young children counting, letters, etc., have been most successful where the mother either watches with the child, or practices counting and spelling based on the program with her child later in the day. Furthermore, follow-up materials including comic books, puzzles and other games and toys are available at fairly low cost in the U.S. and many of these may in themselves be learning aids.

The implications of these media learning strategies - group learning at special centers, home learning as learning, and home learning as entertainment - are discussed under the more detailed versions of these strategies presented in this volume.

A key policy decision point, however, is relevant here. It involves the extent and intensity of programs desired. Whether to emphasize media programs for special centers, or home broadcasts, or to use all available approaches (for instance in a major national literacy or other effort) will depend to some extent on the spread of communications technology in rural and urban slum areas: on the availability of program development resources; on policy decisions about how critical the particular effort is at the time in the nation; and on regional communications capacities and priorities.

Multiple Literacies

A. Literacy programs in the sense of reading, writing and arithmetic are already widespread in TDN's and are becoming more so as governments and international organizations continue to seek universal literacy. Media has been used in various forms. Notable broadcast efforts include Colombia's Radio Sutatenza which combines three approaches in its highly successful effort to improve the education of farmers: 1) radio broadcasts which cover matters of general interest to farmers as well as instruction in literacy -- the audience reached is very large; 2) classes at special literacy centers where the three skills are worked on intensively -- a much smaller population is reached by these classes; 3) a special newspaper adapted in content and vocabulary for rural people who have recently learned to read, "El Campesino" -- again, a large population is reached. Italy has developed a highly successful televised literacy program for her poor south which has been described in the introduction to this section. However, in general the most widespread use of media for literacy has not involved broadcast, but the more traditional workbooks, blackboards, etc. The use of small technologies in literacy remains to be developed, from nonverbal adult booklets for beginners through slides, etc. Their potential would seem to be promising.

Certain motivational problems with literacy could be particularly helped by media strategies. Often the farmer -- and the farmer's wife -- do not understand why they should bother to read and write since daily

work takes place in the fields, and the radio brings in the news. This will often be true of the urban poor as well, as long as they can find work which does not require literacy. Furthermore, all those who begin literacy classes do not stay, often because the work seems tedious and unrewarding. Broadcast programs, however, can emphasize the practical worth of the three skills, teaching the farmer how to handle agribusiness aspects and the city dweller to qualify for factory and other jobs which require some ability to follow written directions. The status of radio or television classes can add to the general status of being an educated person. Furthermore, the widespread imitation of the "El Campesino" model will provide high interest, easy follow-up materials suitable for adults. The exploitation of the literature and poetry of the nation in entertainment broadcasts can comprise an additional supportive strategy. National pride and cultural development are enhanced at the same time as literate activity is fostered in a subtle way. Finally, "selling" literacy to adults may be done on the basis of closing the generation gap: "If your child will read, so should you". This appeal can be broadened - for instance to making the rural family a more interesting place to be so that young men and women might be less tempted to leave so readily for the cities. Such appeals can be broadcast in local news announcements about literacy classes, or embedded less directly in radio dramas or both.

Literacy programs for Colombia, Zaire and Indonesia:

1. In Colombia, the Sutatenza model is already well developed but needs to be adapted for urban populations. There is some current interest in the nation in doing this, and the beginnings of such efforts can

be seen in the Sutatenza organization. However, full separate programming for the urban poor has not been worked out and the problem is more complex than radio to farmers because of the heterogenous nature of the barrios communities and occupations. This is an area where the proposed Communications Instituto (described in Volume IV, Colombia) might work cooperatively with Radio Sutatenza to investigate and try out urban programs. Just as Sutatenza broadcasts cover multiple interests of farmers, an urban program could focus on job opportunities and broaden the literacy center teaching to include such crucial city skills as telling time, using various kinds of construction tools, etc. In response to the acute migration to the city problems of the nation, and to the fact that most barrios dwellers still remember an earlier rural life, the urban program might well discuss current farm opportunities and information, and include an "El Campesino" section in the urban newspaper.

The implications of such a program for Colombia include upgrading the skills of the urban poor to provide factory workers for her national industries, and the possibility of reversing some of the migration patterns by keeping the barrios dwellers more in touch with events and opportunities in the countryside. Furthermore, the most successful new literates in the barrios might be selected for special training programs as teacher aides for assignment to the understaffed village schools. Such a plan would not only bring a small number of persons back to rural areas, but would provide others with a living model of the possibilities of return, at the same time helping shore up the weak educational system in the countryside. This has been reported as the single most compelling reason for migration to the cities. Mistakenly or not, rural Colombians have become convinced that they increase their chances of achieving education for their children by moving to the city.

Key policy decision points include whether to use radio alone, or also begin television programming for literacy in the cities; whether the Colombian government chooses to back an extension of Sutatenza, a Catholic Church program, intervene with a public effort through Ministries of Education and Information, or enlist union or industrial help; whether or not to combine urban literacy efforts with an active reverse-migration effort. Critical factors affecting these decision points are internal political ones concerning the relationships between government, Church, unions and industry; budget allowances for rural education; present and projected spread of television to the poorer urban groups; associated programming skills available.

In Zaire there is a strong need for spreading skilled and easy use of a common language which is acceptable to, and used, by all her people. At the present time, everyone speaks his tribal language on arriving at school, so that the first few years are necessarily devoted to learning French from the tribal language. The net result is that most elementary school children drop out after two or three years of school, knowing only a smattering of French and arithmetic and having been penalized in their basic education skills by the need to learn a second language at an early age. A comprehensive strategy to help remedy this situation would include a basic education emphasis in the learning of the national language -- French at the moment, but possibly Llingala. This can be done in the schools in early grade education, but it can also be carried out with the help of radio broadcasts for the general public. Such skills as counting, categories sorting, grasping hierarchichal systems,

knowledge of body parts, telling time, etc., would become part of informal education courses in national language literacy. This might be implemented via the Comprehensive Government Broadcast System proposed for Zaire (see Volume IV) or through an expansion of Zaire's Popular Education Programs. That is, Popular Education and basic education elements could be put into the existing national language literacy courses for adults, and similar courses for children could be developed. Both will require the establishment of literacy centers where practice in reading, writing and calculating in the national language can take place. The Popular Education programs, like Sutatenza's broadcasts, would fill the function of supplements during the week to direct and extend the work of the literacy center.

The use of broadcast in this way in Zaire poses a particular problem. Multiple broadcast and literacy center programs will be needed: 1) Many native languages are spoken in the country as a whole, according to geographic region; 2) some areas, such as Luluabourg contain highly mixed populations from all over Zaire, so that many different native language speakers are concentrated in a single area. Literacy in the national language can be taught only from the known native tongue. Basic education elements can then be taught as part of the national language learning, but like the reading, writing and arithmetic elements, separate preparation will be required for each native language-to-national language program.

The most important implications for Zaire involve the sense of national unity of the country which its government desires to foster through the learning of a common language, and the general improvement of the low average educational level. Key policy decision points

concerning such a language/literacy strategy involve where to begin programs -- in rural or in urban areas; administrative decisions concerning the working relationships between such government efforts and the existing Popular Education programs; and choice of national language. As always, programming skill availability is critical.

In Indonesia a similar national language problem exists, although Indonesia benefits by having available the old Malay language, now known as Indonesian, which is native to Southeast Asia and is not associated with the former colonial masters. For the rural and urban poor, however, the same problem obtains. They need to learn Indonesian at the same time that they need considerable basic education to take advantage of new farming techniques or to handle the requirements of city living and work. In Indonesia, this problem combines with an acute one of massive migration to the cities which the government is making strenuous efforts to combat. An optimal strategy for this nation would be rural basic education through language learning in radio-equipped literacy centers first, followed only later by dissemination of similar programs to the cities. Because of the geography of this island nation and the diversity of local dialects by geographical region, it is likely that programming efforts would have to originate in a number of regional centers, although central planning might be done in Djakarta. Motivational problems are likely to be less acute than in many other TDN's since the status of learning and literacy themselves, as well as the status of anything perceived as "modern" such as radio learning centers is extremely high in the most populous islands.

As in Zaire, the greatest implication may be for the growth of a national sense of unity through a common language. The rural emphasis, with its implications for slowing migration to the cities, is particularly important. Key policy decision points include the central vs. regional program origination, both in terms of political considerations and in terms of available skilled personnel.

B. Visual and Other Literacies: The high status of literacy and the nearly universal desire for education can provide the leverage for valuable basic educational strategy alternatives. The three R's are not the only possible literacies, nor the only necessary ones.

- Visual (in the sense of pictorial) literacy has been discussed in the introduction to this section. It may have special value in nations where job training programs are anticipated in the next decades which will rely heavily on films, closed circuit television industrial training courses, etc. It has a more general value, however in all nations with large illiterate populations. According to a September 1971 UNESCO report, the most optimistic sources foresee hardcore illiteracy by the end of the century for at least 15% of the world's population (an estimated 650 million people). World illiteracy rates have dropped from nearly 50% in 1950 to approximately 34% in 1970, but meanwhile electronic audiovisual communications are spreading rapidly. The resulting reliance on film modes across the world means that if a nation wishes to function as a part of the world community, its people must be able to understand international visual styles.

- Mechanical literacy, that is a working knowledge of all manner of motors and machinery, including repair techniques.
- Mapping and tracking literacy which can build the basic understanding needed for electronics work, for using wide varieties of diagrams, schematics and maps useful in rural and in urban community development projects.
- Color coding literacy. By taking advantage of existing cultural color "languages", an understanding of the process of color coding can be dovetailed with mapping and tracking skills.
- Agricultural literacy. Minimal arithmetic skills plus the understanding of new farming techniques, generalized notions of the workings of chemical fertilizers, insecticides, etc.

These literacies are mainly nonverbal, and can all be useful in the development of either city life skills or of agricultural and farm support services skills. All implicitly teach logic and causal principles, and develop abstracting ability. They have the further advantage of beginning to prepare unschooled segments of the population for the industrial and/or technological skills which will be needed as the nation develops those sectors of its economic life. To induce wide acceptance, they can be formalized with specialized literary certificates and fostered by continual use after training programs have been completed through community development programs which are dovetailed with the various literacy skills learned.

The inclusion of these "other literacies" in literacy programs may be most critical for rural populations in Colombia, and for Zaire among the nations focussed upon in this study. The use of films, for example, has been widespread for many years in Colombia, and Indonesians have a

long tradition of shadow plays which gives grounding in the artistic distortions of graphic modes. However, this question is basically one for research by an audiovisual, or communications research institute within each nation. Certainly the smaller audiovisual technologies, slides, posters, filmstrips, etc., as well as television, are particularly adaptable to teaching these literacies.

City Community Centers

The difficulties which the urban poor face on migration to the cities have already been referred to in the discussion of innovation in the community. Essentially the barrio, the cité, the urban slum are not well knit communities where traditions of common life, common work and common personal relationships with peers and leaders binds inhabitants into a functioning whole. The social framework and the social support of a community are precisely what is lacking. This situation tends to leave people relatively helpless, especially when they are faced with poor housing, poorer job opportunities and the prospect of hunger for their children and themselves. As noted in Volume II, the stresses of hunger, illness and too many children, of defeat and alienation make poor soil for learning, while at the same time, new learning is often critical if the urban poor are to become qualified for working and living in cities.

Under such conditions, one of the most constructive and effective roles for educational media programs is to help form the nucleus of functioning communities. Alternative strategies for fulfilling this role might be:

- Setting up small neighborhood community centers where critical practical priorities could be met while basic education is improved:

The center would emphasize specific city skills: finding one's way about; learning where and how to obtain work for both men and women, along with daily announcements of jobs available; practice in other necessary urban skills such as telling time, budgeting money, etc. Home improvement skills could make an enormous difference: latrine

building; carpentry and repairs; small scale city vegetable gardening and poultry raising; simple furniture crafting. Such basic education programs will need coordination with manpower training for the production and service industries of the area. They will be most viable where the food and shelter problems of the poor receive comparable municipal attention. It would also be possible to integrate services at such a center with family planning and nutrition education programs. Broadcast receivers (radio or television) located in the center would offer a special drawing card, a means for presenting pilot tested core programs, and the vehicle for beginning to knit many such neighborhood groups into a broader community as news of other groups and the questions and achievements of members are broadcast. The implications and effects of such a program will unfold slowly at first. As the program has its effect over time, some city skills will begin to be passed on to newcomers without requiring an overwhelming number of new centers as the city grows - in effect, making participants into models or multipliers. The longest-range effect is likely to be favorable for the economic life of city as well as of the individual, as improved coping skills help to create a population which is far more adaptable to urban jobs.

- Programs located in existing neighborhood centers (e.g., public health clinics or schools):

The essential strategy is to combine services at one accessible and familiar local place. There are various advantages: avoiding the confusion of a welter of disparate services for people already struggling to absorb the various stimuli of the city; using the familiarity and stability of a single place in which to form a core around which relationships and a sense of community can grow.

Both strategies are territorial ones which seek to differentiate the social and physical mass of the urban sprawl into distinct communities. They are based on a recognition that the personal experience or traditions of most residents include an earlier rural community with a clear location and a name. The well-to-do may move confidently across time and space, participating in their many professional, residence, recreational and other communities, but this is not immediately an option for those whose living circumstances are more socially and economically restricted, and whose energies are often absorbed by survival crises of greater or lesser porportion.

In Colombia, such a program would dovetail well with the Comprehensive Program recommended in Volume IV. Essentially, this involves a combined radio broadcast (to men and women's clubs, e.g.) and social service effort for rural and urban poor. Those who migrate to cities are helped to adjust to their new living situation through contacts by a visitor from the same program they listened to in their village (possibly a Bienestar Familiar worker) who leaves an inexpensive radio, tells them about the city broadcast time announcing jobs, etc. At the same time, this worker could show the newly arrived family where the community center is and explain its activities. The urban radio broadcasts about job opportunities and city life information could itself be expanded to become the core broadcast used at the center with basic education/city skills components. Here, too, as in urban literacy programs, it would be valuable to keep news about rural opportunities and rural human interest stories

as a part of the city program, both to help preserve a continuing sense of social identity for the migrants, and to encourage reverse migration. Since the hope for educating their children plays such a strong part in the campesino's decision to leave for the town, it might be an approach of choice to emphasize learning and education opportunities at the rural center in order to induce continued attendance. Conversely, emphasis on increases in educational opportunities in rural areas could be well publicized in the urban broadcasts.

Key policy decision point: Whether to start such efforts on a pilot basis in a single city, or begin with the Comprehensive Program and set up city community centers only later, will depend partly on national priorities about informal education or migration programs. If pilot centers are decided on, however, planning from the beginning can still take into account a later integration with the broadcast/social service Comprehensive Program plans.

In Zaire a strategy has been developed for men's clubs in the cities to be developed around the existing Social Affairs Ministry literacy courses for men. The men's club strategy involves training in city life skills and literacy in a partly social setting to take advantage of the Zairian man's habits of congregating over coffee or beer for male companionship. Radio and/or films are the media suggested to carry the core of the program.

(See Volume IV, Zaire, for further details.)

Parent/Child Centers

As a functioning behavior setting for media-generated basic education for children and their mothers, parent/child centers might be established. Mothers would bring their young (pre-school age and somewhat older) children on a regular basis - perhaps every morning or afternoon - where with the help of an aide, the mothers themselves would be trained as the teachers of their own and the other children. Core basic education program components would be furnished by broadcast - either radio or TV - as a means of keeping up the quality of the learning. (In addition, such a broadcast format to the program carries the appeal of national interest in basic education and in the poor with transmittal through the modern technologies of radio or TV.) The broadcast would be supplemented by materials available in the center to provide mothers and their children with "hands on" experience in using various tools and measuring instruments, in learning to tell time, to speak the national language correctly, etc. Parent/child centers can be begun by building on the base of any existing family service centers - for instance, city community centers or health clinics.

Implications: Those women who are particularly gifted in working with young children and particularly apt at learning would in themselves multiply the effect of such a center in various ways. There would be some spontaneous helping of friends, neighbors and family with child-rearing. These women would also set a visible model in the community of the mother who teaches - rather than only nurtures - the young child. And they would apply their skill through the generations as their own grandchildren grow. As the program gains strength and centers multiply, these women might be helped to start small daycare centers to broaden their sphere of influence. They may also form a pool from which

teacher's aides or kindergarten teachers can be certified to feed into understaffed elementary school systems.

Essentially this strategy demonstrates how the "best wedge" of the high priority of the care of the very young can be used. When the mother becomes the child's teacher in a formalized role dignified by special programs, not only her own, but the child's behavior setting is altered radically. If early childhood teaching begins to become a respected career, early childhood learning begins to become expected behavior. This will be an innovation in those parts of the technologically developing world where there has been little hope of schooling, and where the notion of "education" for the infant and toddler are even more unexpected. As the child's role and the expectations of him begin to expand, adult behavior towards him changes. The child is now supposed to be actively learning. His questions and his curiosity are to be attended to and fostered. As the child moves from a passive role to one of exploring, learning and doing, his mother's role is increased rather than lessened. She emerges as the child's conscious teacher. She is still within the cultural tradition of TDN's in maintaining a child-centered role, yet she begins to be more than the bearer and feeder of children. Women are thus gently lead towards a working role. This in itself will help more effective eventual family planning practice as women begin to enter the work force outside the home. Meanwhile, the teacher-of-her-child role is immediately meaningful to the mother, acceptable to husbands, fathers, mothers-in-law and such gatekeepers, while it is significant for the society. The social significance is not limited to family planning, but includes the economic future of the nation and the improved educational level of its youth.

Key policy decision points: The development of basic education programs for young children is relatively new, and existing models are largely European and American. There may be an unusually strong tendency here to try to ride the "magic carpet" of translating another nation's successful program wholesale, rather than developing a culturally suitable indigenous one. There is already evidence of the inapplicability of directly translated versions of "Sesame Street" in Ethiopia. A critical decision point arises here relating to how to obtain effective consultation while developing appropriate educational broadcast and materials creation skills within the TDN. Outside consultants may be sought for brief advisory periods, or can be brought in to help handle the full working out of pilot models. They can be sought in one nation, or as a multinational team. In any case, the creation, testing, implementing and continuous evaluation of basic education programs for children will have to depend ultimately on the research capacity of the TDN.

For Zaire, the existing Foyers where young women learn home arts, French, etc., may be the most appropriate place to begin such centers. They exist in both rural and urban areas, although the program development and facilities tend to lag in the countryside.

It is also possible to develop a further strategy from these centers to supplement the continuing education of both boys and girls as they reach late childhood and have exhausted the learning opportunities of the Parent/Child center. The girls may continue on into the Foyer program and become certified in their early teens to work either as aides in the Foyer or the Parent/Child center parts of the program. This certification may also allow them to become aides in the elementary school system. Such a comprehensive educational approach for the girl

of Zaire in effect amounts to an educational system outside the formal one - where few girls and almost no poor girls - are currently educated. It may serve as an effective supplement to formal education until the nation can expand its school system according to plan. Meanwhile, the mothers of the next generation will be far more educated parents to their children - a generation which will have a better chance of entering the school system, and who can thus be better prepared for it because of their early learning at home.

The boys in late childhood may go on into occupational training with the older boys and men of the community on community projects. It may be that the labor unions will be the best institution through which to implement this apprenticeship system for the boys. They would receive relatively token payment as compensation in order not to compete with grown men for jobs, but could be certified at the end of their apprenticeship in construction, road building, factory work, etc. An alternative might be entrance into the Communications Scouts (see Volume IV, Zaire for discussion of this strategy), again with certification at the end of training.

The communications media provide an excellent vehicle for maintaining the quality and "up-to-dateness" of such programs. They also maintain interest in the program because the media delivered to a center may not be available to a poor home.

In Indonesia it is likely that a similar model of basic education-to-informal communication-assisted education could be applied. Both there and in Colombia it might be preferable to offer such opportunity mainly in rural areas or new towns (see Volume II) in order to reverse the flow to the cities through such educational opportunity. The Bienestar Familiar clinics and workers might form the early corps and

center for such programs in Colombia. The girls may go on to mothercraft center training as mothercraft programs are broadened to include the prevention as well as the cure of nutritional disease, and as other homemaking and childrearing training are added. The boys may "graduate" into apprenticeships similar to those illustrating the Zaire version of this program, and suited to the employment opportunities of the region. Because of the recent changes in land tenure in Colombia and the critical need for small farmers to learn agribusiness aspects of farming which were not demanded of them under the former, more feudal, system, this type of apprenticeship would be particularly important.

#### Home Broadcast - The Family Focus

In the final count, the best basic education begins at home. It is absorbed early from the spontaneous activities, interests and skills of the family. As the transistor radio spreads through the world, and even television begins to creep across the town, broadcast can begin to bring experiences to the family which provide alternatives to the traditionally passive role of children. It can do this through dramas, and by the very example of special programs for pre-school children. But it can do more. It can come into the home actively by providing games - both broadcast games and others furnished as inexpensive toys and picture books tapping the themes of favorite programs.

The use of media-engineered games involving sharing, cooperation and mutual problem solving between generations in ways unusual to the old family structure can be a healthy departure. In the form of frankly "games and play" which threaten no father's authority and no mother's competence, educationally healthy experience can be provided to youngsters without disrupting the traditional family.

Basic Education On The Job - The Working Adolescent

Many young men and women in technologically developing nations are employed as domestics in homes where there are television receivers, or in factories or on plantations which could afford one for the workers. This could provide the basis for an additional strategy in reaching such youths, who by and large have had little or no formal education.

Such a program has been in operation in Peru since 1962 in the highland city of Arequipa where a large proportion of urban poor youth are employed as domestics, and where the school system has simply been unable to handle the numbers of children to be educated. Telescuela Popular Americana was formed, at first as a volunteer effort and later as a private, government funded one, to reach these young people. An average of 25 minutes a day on television is devoted to lessons in literacy skills, basic arithmetic and broadcasts in "fundamental education" (materials presented by nurses, social workers, vocational teachers, etc.). The young domestic registers for the course, watches on the family set with the permission of his employers, and does the homework assigned by television, which is checked in weekly meetings with program personnel. These meetings eventually developed into work sessions on the domestic's day off at a program center.

In spite of some initial difficulties - employers felt at first that they were being asked to subsidize the program; servants watching the household set cut across local social mores - the program has been a solid success. Its implementation seemed to depend at first on enlisting employer cooperation by personal appeals from the (religious and other) volunteers, but the program quickly became

established as acceptable. This media strategy is the reverse of the more usual one which assembles groups of listeners. Rather, it utilizes the potential of television to reach scattered students who cannot easily be brought together on a daily basis. As such, it may be most cost effective in a nation like Colombia where the number of youth employed in households with receivers is high. Application of the same method in factories (perhaps instituted through SENA) and on the plantations might also be feasible in Colombia.

In Zaire and Indonesia television itself may not yet be widespread enough to make the strategy practical at this time except in the three large cities. However, it is also possible to plan similar programs via radio where the broadcast serves the function of repeating lessons to the learner, and assigning homework during the week in preparation for weekly work sessions at a literacy center.

Selecting the Field Worker - An Educational Strategy of "Near-Peers"

Technologically developing nations are plagued by the many dropouts from the primary school system whose one or few years of education are in effect a lost investment for the country...by a lack of school teachers...by the lack of personnel for field work roles in informal and basic education programs. Furthermore, the economics of these nations is largely labor-intensive in most fields of endeavor because of their lack of technological resources, the availability of low cost labor, and the need to provide employment for as many citizens as possible.

To help meet many of these needs simultaneously, a strategy of using communications technology in the service of employing "near-peers" as education aides for all types of basic education and functional skills programs (such as nutrition education) is recommended. The "near-peer" is a person from the same or nearly the same social class as the learner and often only a few years older...communication between them is therefore easy. To some extent, he has developed the skill that will be taught, although he may be only a little more advanced than those he teaches in basic education skills, language learning, family planning practices, etc. This allows him to appreciate the learner's problems and questions. Near-peers have been employed as teaching aides with great success in a number of American programs, from primary school education for Chicano youngsters (where the aide may be an only slightly older child) to reading classes for ghetto youngsters in Brooklyn where the near-peer, himself nearly illiterate when selected, may be a 15-year old who is probably about to drop out of school. In the process of being trained to teach reading to first graders, the teenager himself rather quickly learns to read.

The "near" in "near-peer", then, essentially means near in skill level, social class and ethnic group, and may mean near in age. In TDN's he can be an adolescent or a young adult and work with learners of all age levels. Rogers, for instance, describes the success of the homophilus worker (near-peer) in India's incentives-for-vasectomies programs. He discusses how these men, who themselves had all had vasectomies, could discuss the ins and outs with new "clients", who in turn could ask questions in a way impossible if there had been more social distance.

When he is properly trained on the job, and properly guided, the near-peer is not only one of the most effective of teachers: he inevitably becomes one of the most effective of learners, and one for whom special interest materials do not have to be prepared because he is motivated by his interest in his job to learn through whatever materials are appropriate for those he teaches - child, adolescent or adult. Through the use and the explanation of these materials he becomes more expert, and is both teacher and an easy-to-imitate model for his learners.

The main problem with implementing a near-peer basic education strategy is that of initial and continuous training. Here broadcast and smaller media can play an essential role, making an otherwise overly expensive strategy viable. The fewer more expert education specialists can devote their time to rotating throughout a series of centers in order to provide on-the-job training and supervision, while the new aides are helped with both teaching techniques and with the concepts and skills to be taught by the technology. The media not only perform a "holding operation" for training, but provide the necessary quality in the core materials for the education process.

Implications for the TDN are positive and widespread. Such aides may eventually feed in to the understaffed primary education system of the nation, either as aides or eventually as experienced teachers. (Most TDN's are already forced to use minimally qualified schoolteachers to some degree now.) In spite of their original dropout status, they acquire with their position as an aide an honorable status as "professionals" in their own right. The general educational level of the country is improved, both by the new learners and by the achievement of the aides who are reclaimed learners and more constructive citizens. The Teacher Aide Corps recommended for Zaire is one example of the "near-peer" strategy. It offers a model which might be applied in many TDN's. (see Volume IV, Zaire)

Training Field Workers In and Through Media Use

All media, but perhaps the broadcast media in particular, have a special role to play in training field workers. The extent of this role includes:

- training the aide in how to teach basic education (or other "subject matter");
- training him to utilize core broadcast programs in teaching basic education to the target population at literacy and other centers - for instance, how to organize groups for watching or listening, how to help them do tasks assigned during and after broadcasts;
- instructing the aide in how to work with the smaller technologies which may be involved in teaching basic education to the target audience such as slides, writing materials, clocks, maps, etc.

In this process of training the aide, a reward system can be set up for creative uses of media by aides, from devising slides of their own to innovative ways of utilizing the core program in the teaching situation. The media themselves can be used in this reward process to publicize successes. For instance, videotaping a good solution to a teaching problem with credits to the worker, and showing the tape to other aides in similar programs throughout the nation. In addition to rewarding the creative aide, this use of the media can also help to overcome the sense of professional isolation which scattered field workers are often subject to, while at the same time it helps solve educational problems which many of the field workers may be facing.

The process of using media to train educational field workers can be carried out either,

1. in combination with brief group training sessions at a regional or national center, or
2. through completely decentralized training programs for the worker on the job.

Both approaches have been used with considerable success without the help of the media. With the media, the process could be markedly expedited, especially when 2-way communications are available. In the examples which follow, it should be noted that even the first approach relies most heavily on continuous on-the-job training after relatively brief group training sessions at a central locus. Outstanding examples of these strategies are currently in operation in Italy and in Brazil:

- 1) In Italy's Telescuola program for teaching southern farmers literacy and other primary education components, the "aides" are all certified elementary school teachers. However, for their continuous training in this new and informal education setting, each teacher maintains weekly correspondence with one advisor in Rome, mailing in examples of problem homework and descriptions of problem classroom situations. The advisor is a member of the central Telescuola staff whose function is to help rather than judge the teacher. He is never a Ministry of Education inspector.
- 2) Pablo Frere's training strategy for literacy center aides in Brazil has proved a great success. Here the aides are assembled for brief initial training at regional centers. At very wide intervals they may be brought back, again briefly, to the regional center. In between, program staff visit the field workers at regular intervals to go over problems, encourage the field worker, and help maintain his sense of identity with the overall program.

The following implications and effects of relatively decentralized training will tend to increase with the extent to which training is carried out continuously and on-the-job: The efficiency of workers is better maintained, both because of the continuous nature of the retraining, and because it avoids long absences of the field worker in a totally different setting where he is likely to lose touch with the realities of his work situation. The strategy also helps prevent the loss of rural aides to the cities. The experience of living in a city for any extended training period often seduces aides away from their rural communities, and sometimes from the program altogether. The continuous training which can be provided by the media may be the critical success factor

in utilizing undereducated aides who need sustained moral support as well as frequently repeated substantive help with what they are teaching. Finally this strategy permits more realistic and faster feedback to central staff about the effectiveness of training methods and the appropriateness of the program itself for the target audience. They receive up-to-date information from aides who are trying out techniques under actual field conditions - a very different matter from absorbing training at one point in time, applying it later on, and reporting back still later.

The general educational implications of decentralized media training strategies are also important. The strategy makes viable the training, and thereby the education, of many less educated persons in the population - dropouts and other "near-peers," mothers of young children, etc. In effect, the basic education aide training program becomes an addition to the TDN's informal education system - a system which is probably the only way to bypass the usually elitest and traditional formal education system of TDN's, and reach otherwise inaccessible proportions of the population.

Finally, the use of media for training in itself will increase interest in communications technologies, helping to stimulate the development of that infrastructure in the nation. Interest will be engendered both in "educational technology" and in the communications industry itself.

An associated indirect strategy to help encourage aides and to help build the communications technology infrastructure would be to dramatize the scientific or technological roles involved in the learning programs described in this report by a series of radio or

TV programs. The roles dramatized could range from that of working to make and maintain equipment, to the aide's work, to the role of the programmer and higher level communications specialists. The total effect would be to increase interest in the span of communications careers critical to a modern, technology-based society as the nation develops its communications systems and programs.

Key policy decision points associated with media-aided decentralized training programs include: The planning of such training, which may be totally centralized, or central combined with regional planning. Decisions will depend largely on the distribution of educational and communications skills available throughout the nation. The actual training via media can be carried out, as mentioned above, either by assembling aides at a national center, at a regional center, or by training them locally on the job, or in some combination of local with more central training. Travel costs and budgets, the expert consultation available within or outside the nation to devise media training programs, and national communications research capacities to deal with training needs in new areas of the nation as programs are disseminated more widely, are crucial factors.

12.1.12

FAMILY PLANNING

## INTRODUCTION

### Forword

The phrase "family planning" is chosen rather than "population control" or even "population planning" to indicate efforts to assist people to regulate their fertility to their own advantage. It can include the spacing of children, as well as the increase or the decrease of fertility. The concept is offered as one which is geared to whatever a given TDN's national policy may be, as well as one which avoids the unpleasant overtones sometimes perceived when a developing nation is offered advice in this area by a developed one. There is no doubt, nevertheless, that many TDN's are eager for help in dealing with their rapid population growth - Indonesia is an outstanding example. However, rather delicate consultation with many nations is still required. Colombia is an example of a nation where government departments and many of the people are extremely interested, but where an explicit family planning policy cannot be announced. Even "pro-natalist Zaire" gives evidence of a desire for help with her overpopulated urban slums on the one hand, and with her empty rural areas on the other, where spiraling underpopulation is due to malnutrition, sterility induced by widespread venereal disease, and extremely high infant mortality rates.

Potential and Limitations of Mass Media for Family Planning

Potential:

Although the mass media have many limitations including cost, impersonality and absence of dialogue, they have great potential as communications channels when used in conjunction with interpersonal channels such as clinics and field workers, and with more precisely targeted media.

The dynamics of just how much and in what ways specific mass communications channels motivate people in family planning has not been adequately explored experimentally; however, experience and research leaves no doubt that they make a definite impact.

Wilbur Schramm summarizes some of the relevant research as follows:

"At this stage in communication research, it is no longer necessary to prove that people learn from mass media. Many studies of the KAP or cross-media comparison types testify that they learn about family planning as readily as about other subject matter...

"Nevertheless, the evidence is not so clear as to how much the mass media can do by themselves to motivate acceptors. Not many studies have been designed to separate the effect of the public channels from that of personal communication. There is a chronic lack of control groups. When people are asked, however, what led them to come to the clinic, a considerable number of them usually mention public information."<sup>1</sup>

Evidence from Korea, India, and Honduras indicates that the introduction of mass media into family planning programs can raise the numbers of adopters substantially, including in places where field workers had been successful already. The integration of the two methods must also be considered an effective alternative.

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<sup>1</sup> Wilbur Schramm, "Communication in Family Planning," Reports on Population/Family Planning, April 1971, p.32.

What roles can mass media play in an overall family planning communications program?

1) Building a climate of acceptance

The mass media can play a role in increasing the public's knowledge and in reinforcing attitude changes generated from personal communication. The media can make the public aware of family planning as a way of improving the quality of family life and can prepare them for interpersonal influence by directing them to informal discussion with field personnel and opinion leaders.

2) Legitimization function

By provoking public discussion, indicating the support of respected opinion leaders and by making people aware that others like themselves discuss and practice family planning, the mass media can legitimize the subject of family planning. Discussion on the public media makes it easier for husbands and wives to discuss family planning, which both may have been too shy or uninformed previously to engage in.

3) Information function

The mass media can announce the availability of services - when, where, the cost, etc. More important, it can refer people to sources of further information and motivation which would either be too inappropriate or too complex to put on public media.

4) Validation of other communications channels

Mass media, especially a variety of media, can reinforce and validate what audiences are hearing from other sources, including field workers. Support from the media in turn builds the morale of the field workers and makes them more effective. Media stimulates

talk, adds to the accumulating knowledge, and reinforces opinion leaders and other sources of information; people in turn notice discussion on the media or among friends more and the interaction of personal and mediated communication begins to have a cumulative impact.

5) Training:

The use of the mass broadcast media for training field workers and other family planning personnel has not been used to date and poses definite problems because of the subject matter involved. However, there may be potential uses for broadcast in the future, as family planning becomes less controversial in certain countries. Related subject matter such as maternal and child health, basic nutrition, etc. would be appropriate for broadcast to workers right now in many nations. Also, instruction on how to use the small technologies and AV materials and how to coordinate one's program with a general audience broadcast dealing with family planning could be put on the air.

The simpler limited-access media offer many possibilities, however, for training workers, especially in remote areas. Cassette tapes, single-concept films, filmstrips, slides, 8mm films, etc. are just a few examples of the untapped wealth of less expensive, easily programmed and easily adapted media that could be used. Strategies for the use of these media for training are included in the country-specific sections of this report.

**Limitations:**

It is extremely doubtful that the mass media alone, without any other interpersonal communication, could motivate large numbers of people to adopt family planning. The fact that it reaches a general, undifferentiated audience limits to a great extent what can be said on it in terms of family planning. For example, the intimate aspects of some family planning information would be inappropriate for public media. Furthermore, the extent and content of family planning education necessary to move many people in developing countries to adoption is too complex to convey on the mass media. Also, the controversial nature of family planning - the political and religious sensitivity it faces in many countries - restricts the amount of public exposure it can afford on media. What can be discussed on media and how much, depends on the degree of government and public opinion support a program has and the stage of national family planning policy development. The general audience reached by mass media also limits the communicator's capability for targeting messages to specific audiences - a primary factor in communications geared to attitude change.

Finally, the very capacity of mass media for reaching large numbers of people over a broad geographical area imposes restrictions on family planners. There is a danger of motivating people in areas where family planning services are unavailable or inconvenient. If people motivated by radio, for example, find that no clinics or sources of further information exist near them or are alienated by clinic personnel who are either opposed or who have not been properly trained to meet their needs, future communications efforts in that area may lose credibility and a program could be set back unnecessarily.

## Characteristics of a Well-Planned National Family Planning

### Communications Program

A national family planning program and its communications program should be planned as a functioning whole, not as an assemblage of isolated parts operating with little relation to each other. Each institution, function, role and person in the system has its own needs and goals and the system should be planned to foster cooperation and interdependence between them, benefitting each while benefitting the whole.

The program should be dynamic and flexible over time. As the social, political, economic, psychological and technological context of the program changes, it must adjust accordingly. The situation is never static; a program must be sensitive not only to these changes in its environment, but must develop from the beginning an evaluation and feedback system to assess the changes that its own interventions incur. This will enable continual course correction over time.

Some of the "inputs" to an overall family planning system which must be considered in planning communications programs include government policy, manpower selection and training, the supply system for contraceptives and their suitability, the quality and availability of services or clinics, the communications media (their availability, credibility, audiences), research capabilities, and ancillary or alternative institutional channels for family planning communication.

Need assessment of people and institutions within the overall family planning system, as well as of target populations can provide a basis for setting short and long-range objectives; pre-testing materials and programs on a pilot basis will prevent much waste of time, personnel and funds.

Evaluation and feedback from all functions and levels in the system should be designed as a management tool to tell policy-makers whether or not their programs are fulfilling their objectives and why. Evaluation should be a continuing process rather than a one-shot affair. It should not be a threat to those in the system or an end in itself, to label efforts as good or bad. Unsuccessful program efforts should be examined as well as successful ones, analyzed and revised accordingly.

**Coordination:**

One can differentiate the various parts of a nation's family planning communications system in a number of ways - in terms of institutions; personnel; levels of communication; channels of communication; or audiences. Regardless of how the system can be divided, it is important that it be regarded as a system, with coordination and cooperation among the parts.

The people and organizations must be shown how they are parts of a whole; they must realize their interdependence and commonalities of purpose, problems, communication approaches and message. Through coordination, each element of the system will lend credibility, strength and reinforcement to the others. Without coordination, there may be duplication of effort; conflict, contradiction, and sometimes competition and mistrust, undermining the effectiveness of everyone.

Coordination should be introduced on as many dimensions as possible. Although the following ways of differentiating elements or functions in a national family planning communications system has many overlaps, it demonstrates a range of dimensions and levels in the system needing coordination.

Institutions

Public (e.g., government programs, clinics)  
Private (e.g., commercial; sale of contraceptives)  
Non-Profit (e.g., service-oriented; family planning associations, women's groups, special interest organizations)

(Universities; population and communications research; manpower development)

National  
International

Levels and Methods of Communication

Public Information (via mass communications to general audience)  
Community Education (small group or person-to-person communication via workers to specific audience)  
In-School Education

Disciplines

e.g., Health  
Education  
Media/Communications

**Barriers to Coordination:**

There are many reasons why institutions and people in family planning communications systems fail to cooperate. There may be competition for political reasons and for funds; there are differences in methods of reaching people and disciplinary chauvinism.

In many countries, there is a marked lack of cooperation between family planners and other health educators, educators and information/media specialists. There is often rivalry and suspicion between these ministries in governments; also, there is often a polarization between health educators, who characteristically believe exclusively

in the person-to-person approach, and media specialists, who believe in the mass communications approach.

Another barrier to coordination is the parallel or consecutive development of public or private family planning programs in one country, with little intercommunication or overall communications strategy development. In Jamaica, for example, the National Family Planning Board (government) runs an elaborate national mass media promotional campaign and also promotes a broad educational program at the clinic level through the Bureau of Health Education. The Jamaica Family Planning Association strives to reach the community, to have home visits and group meetings, using field workers. A third effort is a sex education development committee within the Ministry of Education. None of these separate communications programs were coordinated as a system of mutually enhancing parts and functions.

#### Manpower Utilization, Selection and Training Principles

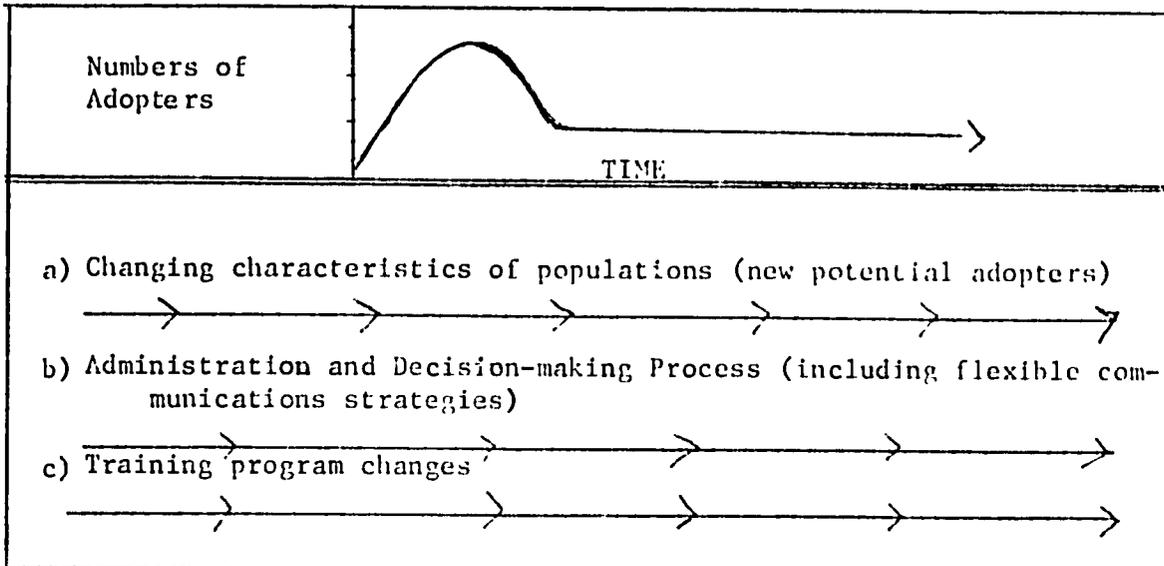
Manpower utilization, selection and training are key elements of any family planning communications program and should be regarded by policymakers as critical variables in their overall strategy development. Training sets a pattern for the entire program and regulates to a considerable extent the potentials, limitations and options policymakers have.

Training programs require coordination, flexibility and the capacity to change over time, need assessment, evaluation and feedback mechanisms. Neither the context of family planning programs, audiences nor field workers remain static over time. Family planners must continually evaluate the total situation and adjust their training strategies accordingly.

Training should not be a one-shot effort and workers should not be trained to expect a static situation which can be coped with in a mono-stylistic way. Also, workers need to be treated as developing individuals themselves, needing new impetus and new information about their own and related fields over time. Both their morale and their ability to cope with the new circumstances depend on it.

An example of a key policy decision-point in the course of family planning programs that requires new training strategies is when the initial wave of adopters plateaus and begins to drop off, as it has in some areas of Colombia. Moving rapidly to a relative "high", experiencing quick success as field motivators or clinic motivators at a period when almost any information campaign would bring clients, family planners suddenly find their "acceptors" harder to convince. They meet resistance for the first time in the form of neutral, uninterested or hostile people. They are apt to become frustrated, angry and disillusioned, and worst of all - they may alienate potential clients and drop out of the program.

The sudden drop-off of numbers of adopters after the initial wave of "ready" acceptors has been reached is peculiar to family planning as an innovation. Adopters in other areas of innovation, such as agriculture, tend to plateau and to decrease much more gradually over time. The chart below demonstrates the curve of the numbers of adopters in Colombia over time, produced by the changing characteristics of preparations (new potential adopters encountered (a)). Related program factors (b, c) that must respond to changes over time are included.



Policy-makers can anticipate and intervene at this point with several training strategies. They can train workers from the beginning to anticipate change and to have a flexible repertoire of working styles, or they can retain them. They can shift from or supplement a clinic-based educational program by developing outreach programs with specially trained personnel, and they can concentrate on reaching other audiences - following up acceptors and drop-outs; reaching men, younger women, and children in schools.

#### Development and Adaptation of Media and Materials

##### Basic Assumptions:

An organization's approach to material production, including need assessment, adaptation to local needs, method of dissemination and evaluation all reflect its nature and help determine the public's reaction to it. Often family planning organizations project an image

of wanting to make materials effective according to a predetermined standard, rather than to solve problems. They are trying, it appears, to produce materials that will convince as many people as possible to "accept" family planning, rather than finding out what people's needs are and developing materials to meet those needs. They do not always seek to assist people in regulating fertility to their own advantage, whether that means spacing babies, having fewer or more babies. The very phrase, "family planning acceptors", used throughout the literature, reflects the attitude of communicators. They often appear to the audience to be "pushing a product" and satisfying their own objectives rather than the needs of their audience. These needs are probably as unique as the culture of the group or the personalities of the family members, yet they are fitted into a universal mold. The communications media which are monodirectional and hence do not have ready feedback can err most grievously by pressing programs that are ineffective or even counterproductive. Pretesting programs with an adequate sample is only a first step. Continual monitoring is necessary to detect changes through time, the results of new factors or rumors and counter action.

## FAMILY PLANNING STRATEGIES

Many of these strategies are described in further detail as they apply to Colombia, Zaire and Indonesia in sections that follow.

### I. MANPOWER UTILIZATION, SELECTION AND TRAINING STRATEGIES

#### Key Policy Decision Points in Training Strategy Development

Depending on their overall strategy, the human resources and institutions available, and the stage of their program's development, policy-makers must make a series of decisions about their training program. For example: What type of personnel should be trained? Clinic personnel, outreach workers, communications and media specialists, extension education agents in related fields? Who should be selected for this training and according to what criteria? What type of personnel should receive general training and according to what criteria? What type of personnel should receive general training and what type intensive training? Should training be specialized (strictly family planning) or integrated (family planning in combination with other fields such as nutrition, MCH and general health, sanitation, agriculture, literacy, etc.)? What should be included and emphasized in the training program?

#### Use of Training to Achieve Coordination in Communications System

Regardless of what types of personnel are being trained, there should be coordination between the different levels and functions of the system. Each person in the system should understand the roles and functions of the other people in the system - their goals, needs, methods of communicating with the target population, materials

and messages. It is important that each element realizes that he is part of dynamic system with complementary functions, organizations and goals and that each part can enhance the effectiveness of the others. Understanding the overall family planning communications system and one's role in it is necessary for establishing internal communication up through the system and between the various functions and organizations; it paves the way for effective evaluation and feedback within the system and encourages mutual reinforcement rather than rivalry or duplication of efforts.

One way of achieving coordination in training programs may be to train task forces comprised of people with different levels and roles in the system. Communications or media specialists, doctors and other health personnel and field workers could benefit from some training time together. This might mean involving people from the government, private associations and universities, for example. They might work together on some specific problems that have been identified by policy-makers or which they themselves

A film or other material could be developed to demonstrate the different points of view and functions of the various people in the system. Even the R and D that leads to the production of the film would be revealing of much of the dynamics of the organization and contribute to smoother operation.

Another method of maintaining sensitivity of one element of the system to the others would be through continuing information through newsletters, seminars, workshops, limited access media broadcasts, etc.

Strategies for Training Clinic Workers

The importance of how a man or woman is treated in a family planning clinic cannot be underestimated. All clinic personnel from paraprofessionals to nurses and doctors play critical roles in determining whether or not a client returns after his or her initial visit or continues practicing family planning.

Often, medical professionals and paraprofessionals are likely to approach women who come for family planning services as patients coming for an essential medical service. According to this philosophy, providing a patient with education, reassurance, respect, courtesy and convenience are not considered essential. In the extreme, this attitude could be called the "veterinarian approach."

Clinic personnel, including physicians, must be educated to realize that few people in developing populations, especially the poor, regard family planning as an essential service or regard the need to space their children as a medical crisis. They do not feel compelled to go to clinics or often go with mixed feelings.

Medical professionals and their staffs must be trained to realize that family planning has psychological, social and economic as well as medical implications; that men and women need respect, reassurance and education about more than reproductive physiology. Clinic personnel must understand the needs, attitudes and fears of their clients. For instance, they should prepare them for possible side effects of certain contraceptive methods they might use.

The clinic would be one of several appropriate settings for media presentations - particularly media presentations which would not be appropriate for mass audiences. Clinic personnel should be trained to use and adapt media and materials to the needs of their local population.

Strategies for Selection and Training of Field Workers (Outreach Workers)

Experience in family planning programs around the world has demonstrated that well-trained, well motivated field workers can be the single most effective educational and motivational media a program has. In family planning, as in agricultural innovation, adopters cite personal communication as the most powerful persuader and usually refer to extension workers if they were involved. Taiwan, Korea and Hong Kong have built their programs around field workers, and Iran gives them heavy emphasis.

The success of any mass media program depends on the person-to-person communications network and should be integrated with it, not tacked on. In turn, field workers will benefit from the support the mass media gives them and should be trained to see the inter-dependence.

Key Policy Decision Point:

What type of worker is needed? Whether workers are full-time or part-time, professional or non-professional, limit their interviews to maternity hospitals and MCH clinics, make home visits or hold small group meetings depends on the country's or region's needs. What works in one country might not be ideal in another. For example, field workers in Hong Kong discovered in 1967 that

institutional interviews in maternity hospitals and MCH clinics would be more effective and efficient than random home visits, which are customary in Taiwan and Korea. About 63% of Hong Kong women have their babies in hospitals and 85% bring their babies to MCH clinics.

Selection Criteria: What emerges as a critical factor in training field workers is selection criteria. Selection is the better half of training, perhaps.

Evidence in many countries shows that field workers are likely to be successful if they are culturally acceptable to the target population. What constitutes being "culturally acceptable" is a complex question. It is like asking what makes one person respect another person and furthermore, what causes one person to listen to another person and to change his attitudes or behavior as a result.

There is no formula, but certain variables can be mentioned which help determine whether a field worker will be an effective communicator. He or she may be indigenous to the target community; or he may share the values and goals of his audience and have demonstrated success in terms of their values (e.g., a mature woman who has several children and practices family planning herself; or a successful farmer and responsible father); or he or she may already be an opinion leader in the community (such as a village chief, teacher, respected matron); or he or she may have established rapport with the community by helping them improve the lives of their families in other ways (such as health workers, educators, agricultural agents, etc. - these workers may be especially effective if they've helped satisfy people's higher priority needs).

One of the biggest problems in family planning programs is to train field workers to stay in villages, where 80% of the developing world lives.

Strategies to circumvent this problem depend to an extent on need assessment of potential field worker trainees, so that their training and work as field workers helps meet their needs at the same time it meets the needs of target populations. For example, it is self-defeating to train people as field workers who have left the village behind and regard the training as a way to climb up the social ladder, stepping on the heads of the villagers they have begun to disdain.

Use of Respected and Influential Local People: Experience in Korea, Taiwan, India, Ceylon and Pakistan supports the cost-effectiveness of using non-professional local people part-time on an incentive basis to supplement full-time professional field workers. There is evidence, however, that this type of worker is most effective in the earlier stages of a family planning program when recruiting acceptors has not yet become difficult. Also, part-time workers need supervision after a while or their productivity may drop off considerably. When the "ready" acceptors have peaked, more emphasis on permanent, well-trained full-time outreach workers is needed. One great advantage of recruiting local leaders in the earlier stages of a program is that through their participation, local opinion leaders become committed to the idea of family planning and act as models for the rest of the community. In Pakistan, when village leaders recruited women to try family planning, their wives were the first adopters.

Teaching Family Planning to Grass Roots Communicators vs. Teaching Communication to Family Planners: Dr. Joseph Beasley in Louisiana, has operated on the principle that people who can win the confidence of others and communicate with them are born, not made. He carefully selects people on the grass roots level who have this gift, seeks to get their interest and support for family planning and trains them. He has no academic requirements and some of the workers are not literate. This is an alternative to the strategy of training people who can learn academically but still cannot relate to people they will deal with. Beasley maximizes the effectiveness of his field communicators by demanding high standards of service and convenience in all family planning clinics. For example, there are night clinics and early morning clinics open for the many working applicants and every man or woman is guaranteed service in clinics within 15 minutes of when they walk through the door.

Training people who are already field workers or extension educators in related fields: Another strategy for developing a network of field workers who will not leave villages is to train dedicated people who are already reaching villagers (or the city poor) as agricultural agents, adult educators, social workers, home economists, etc. This strategy and its implications are discussed in the section on the strategy of integration for family planning communication.

What should be included in field workers' training programs?

There are still many unanswered questions about what and how much should be included in training family planning field workers.

One need that is emerging in several countries, including Colombia, is to place more emphasis in training programs on psychology and sociology and less emphasis perhaps on reproductive physiology. The need to understand their target population's psychological and sociological needs, goals and fears increases as the pool of "ready" applicants decreases.

Needed research: Research is needed in each program to determine 1) what is the critical level of relevant knowledge a worker needs? In the interests of cost-effectiveness and time, what can be eliminated from their training? On the other hand, what amount of "over-teaching" is necessary to give workers the security of having enough knowledge to teach others? 2) What types of subject matter and at what level of abstraction are ideal, so as to a) avoid interfering with trainees' cognitive or moral sets, and b) avoid interfering with workers' subsequent educational efforts. If they are taught about reproductive physiology at a high level of abstraction, for example, they may feel impelled to teach their audience the same way, which might be inappropriate.

Preparation for Effective Communication: Field personnel need more than training in the use of the materials they may be using and adapting to local conditions. They should be trained also to be able to isolate and to identify local problems. One of their strategies as communicators whether direct or via the mass media must be to time their intervention carefully and to wait until their audience is able to listen. This may necessitate first solving certain problems which are ancillary to family planning or of a higher priority in a village or town. Directly confronting a target population with family planning materials and philosophy is not always effective.

Field personnel must gain people's confidence and be prepared to meet other needs or his message may be premature. Again, they should "sell" only to those who need family planning and are ready for it. Field workers, in their fervor, may tend to "push their product" and to regard family planning as an end in itself, rather than as one of a cluster of means to the end of improving the quality of family life.

#### Training Communicators/Media Specialists

Training nationals to make their own family planning materials could be done through a communications institute in their country, by training them outside their country or on an exchange basis, or by sending teams to the country to offer training and then leave when they have done their job.

Who should be trained is another question. Almost inevitably, the first communication for family planning in most countries is handled by the medical profession, since they are the first to support and implement it. These pioneer physicians get some short, intensive communications training in workshops, as a rule. After family planning has caught on in a country and has acquired legitimacy and respectability, it is time for transferring the family planning communications job to specially trained professional communicators, as Mr. Garcia-Pena of the Population Reference Bureau points out. Several Latin American countries have reached this stage now in the evolution of their family planning programs.

After the initial flush of clients in family planning programs peaks, communications must take a new turn; more money must be invested; greater efforts must be made to maintain the same level of acceptance; new audiences must be reached; and more carefully prepared materials are needed to supplement the efforts of field workers. All these

conditions require professional communications experts. Such professionals must be trained in family planning so they can develop overall communications strategies for their countries as well as developing materials.

## II. STRATEGIES FOR ADAPTING MATERIALS TO LOCAL NEEDS

### Prototype materials:

Certain organizations, such as the Population Council and World Neighbors have designed prototype family planning materials as springboards from which people can develop their own materials. For example, the Population Council designed a "Communications Suitcase" which includes everything from a small projector, screen, adapter to a jeep battery, two filmstrips, flip books for community leaders, females and males, respectively, two flannel board stories, puppets and posters, to an anatomical model, along with a manual for the field worker.

Designed to cover as many visual forms as possible to convey the information and education needed to implement family planning in a low-literacy area over a 6-10 month period, the materials answer three questions basic to family planning anywhere: the what, how and why. The "what" deals with basic facts of the physiology of reproduction; the "how" deals with methods of contraception, and the "why" deals with benefits to the family.

World Neighbors has developed prototypes of hand-drawn filmstrip segments that can be traced and pieced together in many combinations to make a family planning filmstrip. They also concentrate on teaching people on the field worker level how to make simple visual materials (slides, filmstrips, posters) by lifting pictures from clay-coated

magazines and by hand-drawing or tracing on acetate. The script can be adapted to the local situation by the field worker or he can make up his own.

#### Modularization of Materials and Local Consultation

Implications: This is one response to the great shortage of software dealing with family planning in developing countries, especially software that is relevant to local needs. It also seeks to circumvent or alleviate the need for excessive and expensive training of local people in sophisticated material production for the mass media. Not only is the strategy a way of localizing prototype material, but the consultation process itself serves to ensure the effectiveness and success of the family planning communications.

The modularization strategy is the production of core family planning materials or scripts with alternative modules that could be inserted or deleted according to local needs. For example, a script about how a couple decided to practice family planning could have a core section dealing with the parents' problems related to having more children than they could support. The portion of the script dealing with the family planning methods and options could be in the form of alternative modules, to be selected according to their appropriateness to local needs, resources, services and attitudes.

The strategy of modularization could be applied to training materials for field workers, to field workers' talks, to radio or TV scripts, (e.g., telenovellas), to radio and TV spots and dialogues, to promotional pieces of all sorts, to filmstrips and even to 8mm films produced locally.

The second part of the strategy provides for consultation with local leaders and gatekeepers of opinion in order to involve them on two levels. First, family planning communicators can sit down with these leaders to determine what the community needs, what the program personnel can help with, rather than concentrating on the needs of the family planning program. Community leaders can also advise family planners about what barriers they foresee, what problems may impede a program.

Secondly, these leaders can be involved directly in adapting the material or script to local needs, advising on what changes are needed, what modules would be appropriate.

Implications: By directly involving these leaders, their support may be more easily gained. By adapting the materials, they are likely to become committed - the materials become theirs, in a sense, rather than some external imposition unresponsive to their needs.

This strategy of modularization and local adaptation cuts down on the need for excessive and expensive training of local people in sophisticated material production, and allows for a certain amount of mass production of core materials, while ensuring that the ultimate materials will not be too centralized or irrelevant to local needs.

"Small" media, easily programmed at local levels:

In many areas of developing countries, sophisticated media is either unavailable or can be supplied by many simple and effective media used by field workers. Many such media exist, including the filmstrip (hand-drawn and otherwise), slides, flip charts, flannel boards, posters, pamphlets, etc., to name a few.

Some small technologies that may be used more than they have been so far in developing countries are 8mm films, tape recorders and the Audio-Flip.

Eight-mm films may offer a more practical and effective alternative to 16mm film as vehicles for family planning in developing countries. Sixteen-mm films have often proven to be disappointing in developing countries since they are expensive to make; they are usually produced outside the target country and cannot be adapted to local conditions; and there is often neither the personnel nor facilities to show 16mm films. They tend to get chewed up in projectors or shelved.

Eight-mm, on the other hand, is quite inexpensive, less complicated (especially cassettes), and can be directly relevant to local needs. Local family planning communicators can be trained to make films of the target audiences themselves, in their own village or community. People are most responsive to media that relate most closely to them and 8mm has such potential.

Another way 8mm could be used is to film pre-written, adaptable, modular scripts (using local people, perhaps), as described above. Although production quality is not apt to be comparable to that of 16mm commercial films, quality and sophistication in materials does not ensure their effectiveness.

Tape recorders are another small technology that could be used more in family planning communication. For example, Pakistan is mailing its family planning workers monthly news bulletins on cassette tapes. Whole training programs could be developed on tapes, to update workers' knowledge and to keep up their morale.

Tape recorders also offer many possibilities, providing the audio portion of visual presentations. It is sometimes more practical and effective to produce visuals (filmstrips, slides, 8mm films) without words (in print or on the film's sound track), since words may be far less relevant to local needs than pictures. The family planning worker can use prepared tapes (designed for particular types of audience in indigenous languages) or can prepare his own to accompany the visual material. The audio portion can be directly targetted this way.

Tape recorders could also offer a method of supervision and feedback which is so difficult to provide in developing countries. Field workers could tape sessions they conduct and could get feedback from supervisors on special problems they have.

The Audio-Flip, developed by Sergio Mihilide, is a new small media technology being tested in Washington, D.C. by the USDA to teach nutrition and food-buying principles to the poor. A combination of providing guidelines, and audio, with locally produced visuals, the Audio-Flip could be useful for family planning communication. It is a flip-board coupled with a cassette recording. The pictures used are to be taken locally by local people, presumably, of local people, with careful directions provided (e.g., "take a close-up of a face here," etc.).

Regardless of what sophisticated media a country selects to communicate family planning, they will be most effective if backed up by the many small media and methods of adapting media to local conditions.

III. INDIRECT STRATEGIES IN USING MASS MEDIA FOR INFLUENCING FERTILITY BEHAVIOR

A. A key policy decision point in any family planning program is that of deciding whether to use the mass media for direct family planning programming (such as announcing services) or for indirect approaches or a combination of the two. In a nation like Zaire, for example, where any sort of family planning is politically sensitive and large portions of the population are not ready for it, the mass media could be used indirectly to create a context in which parents could improve the quality of their children's lives.

Family planning is only one way of lowering fertility and of fostering smaller families in a given country. Many other less direct options exist for supplementing family planning and encouraging lower fertility. The mass media can play a definite role in implementing these options.

One family planning communicator said that before a person will limit the size of his family, a) he must know how; b) he must want to; and c) he must be able to. Family planning education can satisfy the first requirement (knowing how), and family planning services and supplies may be convenient, safe, economical and culturally appropriate, but family planning education can go only so far in motivating people to limit fertility.

Before people will want to limit the size of their families, other conditions may have to be met:

- a) higher priority needs may have to be satisfied (e.g., health, food, etc.);

- b) opportunities for improving the lives of their children should exist;
- c) skills for improving the quality of their children's lives may have to be developed;
- d) alternatives to the satisfactions gained from large families may have to be available and equally desirable;
- e) they must appreciate intellectually and emotionally the importance of family planning in achieving a better life for their children.

#### Indirect Strategies for Lowering Fertility

1. Creating a context in which parents can improve the quality of their children's lives. Policy-makers cannot expect people to have fewer children unless they can help parents improve the quality of those they have or will have. Rising aspirations on behalf of one's children rather than for the parents themselves has played an important part in lowering family size in Trinidad and Tobago.

One approach to this strategy is to use the media to develop skills parents need in order to improve their children's lives. This might mean developing programs for educating parents in terms of better nutrition practices, health and child-care, sanitation, basic skills, better food production methods, etc. Implications: By decreasing mortality and morbidity in infants and older children with the help of such programs, you are providing a favorable context within which a change of fertility behavior could make sense to the people concerned.

Another way of using the mass media to build a favorable context for lower fertility is to demonstrate that opportunities for one's children do exist and that change and improvement is indeed possible.

For instance, the media could do everything, from subtly reminding parents that their children are surviving, and are healthier than was once the case (if this is indeed true), that their fears of infant mortality are becoming less founded on fact; educational opportunities for children could be publicized and the media could be used directly for some education; the benefits and availability of health and welfare services could be advertised and successful stories publicized - demonstrating how a local farmer raised his crop yield and fed his family better, as well as having something to sell; or showing a local mother's success in practicing better nutrition with available foods (perhaps her infant's "soft spot" closed sooner than others in the village - an important event in some cultures); or testifying to the higher status or higher paying jobs local boys or girls attained as a result of educational opportunities. The goal should be to demonstrate that opportunities and new ways of acting to improve family life are directly relevant and within reach of the listening audience. Care must be taken to highlight only opportunities which are in fact available to most of the listening audience.

2. Providing alternative ways to attain the satisfactions gained from large families. The approach of many current family planning programs is negative; they are designed to warn women against the dangers of too many children, against the dangers to their health, to the society, to their family, to their economic status, and so forth. However, little has been done in developing countries to offer people effective alternatives to the satisfactions of childbearing, either to fathers or mothers. Effective implementation of this strategy is

dependent on careful research in each target population of why people have children and large families. What are the benefits and satisfactions of childbearing and sex for both men and women? Few of these questions have been adequately explored in most cultures, let alone specific target populations within cultures and countries. Since there are no formulas concerning motivations and rewards of sex, childbearing and large families, the following are only examples of how the media could play a role in offering alternative rewards:

a. Alternative economic rewards

In countries where children are desired in order to support their parents in their old age, the media could play a part in publicizing the existence of any social security benefits that exist and encouraging people to avail themselves of it.

If children are regarded as an economic advantage in their capacity as earners, the media could be used to promote the idea that education leads to better jobs and higher earning power, and that smaller families are more apt to be able to educate their children. Again, educational opportunities should be emphasized and in some cases, provided directly, via the media.

b. Alternative social rewards

For many people in the world, especially for many women, the bearing of children is the only role, the only gratification, the only satisfaction they know. The media can offer women alternatives to deriving status and satisfaction from childbearing per se, so they don't feel that they must keep having more children as the only way of deriving respect, power and mastery. Programs can be designed to make women

effective as mothers, child-raisers and homemakers, mastering new roles within the home. Gradually, as women increase skills and attain status in home-centered roles, programs may be designed to give them roles outside the home - whether in paying jobs or other activities. In addition to educational programs, other media programs such as serial dramas can portray and foster the idea that women can gain satisfaction and status from roles other than childbearing alone. A woman's effectiveness in raising "quality" children can be emphasized.

B. AID can fund programs using the media to take advantage of and to reinforce changes in roles for women as they occur, e.g., as new industries are created. This will require sensitivity to changing social and economic conditions. In Zaire, for example, women are beginning to enter the small business field, selling palm oil and produce, for example. Radio programs geared to helping them in business as well as helping them improve life for their families would be welcome. As industrial centers develop, special radio programs geared to female employees can be developed.

In Colombia, where volunteer work is one of the few socially acceptable roles for women outside the home, media could be used to foster social welfare work as a role for women in many social classes.

Likewise, the mass media can stress the social status conferred on fathers who take care of the children they have, rather than deriving status from sheer numbers of children alone. Providing fathers with the necessary skills and information to provide better for their children is an important part of this strategy - through agricultural extension programs, literacy programs or vocational education, and other economically and personally rewarding programs.

The satisfactions gained from bearing and raising children are only partly economic. Many psychological and social satisfactions can also be derived which cannot be replaced by social security or food stamps. One reason a young woman in city slums might desire many children may be to assuage her loneliness in the new setting, separated from the extended family she left. The strategies for the development of a sense of community discussed in the section on Educational strategies may help to deal with such a situation. The motivations of child-bearing, sex and family size should be included in overall research plans before developing communications programs to influence fertility behavior.

#### IV. MEDIA PROGRAM STRATEGIES

##### Mass Media in Clinic Settings

Utilizing family planning or health clinics as settings for broadcast media programs (radio, TV), has several advantages and implications:

1. Coordination of mass media broadcasts with person-to-person communication by field or clinic educators, one of the best ways to maximize the effectiveness of the mass media, and one of the most difficult to achieve, can be attained by beaming broadcasts into clinic settings.
2. On-the-spot evaluation and feedback: Field educators can get immediate feedback on audience reactions to the broadcast - their misunderstandings, fears and questions. They can relay this invaluable information back to programmers so the programs and overall communications

strategies can be revised over time. By playing an active role in the evaluation and feedback of mass media broadcasts, field workers will get a sense of being a vital and integral part of an overall communication system and will be able to coordinate their own communications approaches with that of the mass media and vice versa, helping to eliminate dissonance between the two.

3. Preparation and follow-up: Field educators can prepare their audiences for what they will hear or see on the broadcast. This may involve discussing the concept of family planning or the concept of planning itself, on a more fundamental level. After the broadcast, the field educator can stimulate informal discussion, answer questions, elaborate on the broadcast perhaps, and go into the more intimate details of family planning methods that would not be appropriate for mass broadcast in some countries. If the broadcast is on radio, it might help to supplement the audio by presenting still visuals on which the audience could focus attention while they are listening. After the broadcast, further visuals, less sophisticated media and hands-on experience with materials such as booklets, pictures or the contraceptive devices themselves might be appropriate. Take-home materials - verbal or non-verbal booklets, for example - can be effective follow-ups to mass media broadcasts, since people need time to make decisions to practice family planning and can show the materials to their spouses and friends as a basis of discussion. Visual materials are also visible explanations of a process which otherwise evidences itself only in a negative way, i.e., absence of another birth.

4. Immediately available services: Another advantage to showing or presenting media at health facilities is that services and medical personnel are immediately available. Clinics should be as accessible as possible - perhaps opening early in the morning and remaining open during the evening, so that both media presentations and services are convenient to men and working women.

5. Media as an attraction in itself: If the media presentation is especially attractive (a special film, drama or documentary) or is on media not otherwise accessible to the target population (TV, films that may be too costly to see in a theatre), the media itself may be a drawing card to bring people to the health and family planning clinics.

6. The use of clinic settings for mass media and programs can also help establish the model of clinics or other health centers as sources of positive, primary prevention, rather than just medical crisis resources.

7. Listening to the broadcast in the clinic has specific group dynamic value. It provides a setting in which attitudes toward family planning are generally positive and are therefore reinforcing. A degree of esprit de corps and morale may develop from the group listening and discussion. When there are doubts, expert professional opinions are available, rather than rumor and gossip.

#### Use of Mobile Clinics with Mass Media Programs

A variation of beaming mass media programs on radio or television into clinic settings is to employ mobile clinics in much the same way, with many of the same advantages. Mobile clinics could spend time in a specific community, coordinating field educator communications with

a radio broadcast with preparation, follow-up, supplementary materials, etc. as described above. Even Television might be available in some settings or videotape or motion pictures. Then the family planning services would be available on the spot for a week or so, giving people time to make decisions and discuss the subject among themselves. Or the mobile clinic could leave and return after a short while and on a continuing basis thereafter, for follow-up, reassurance, and handling complications and new adopters.

The mobile unit could vary according to the country - its terrain and resources. For example, in Indonesia or even in mountainous and remote sections of Colombia with little road transportation, mobile units could be airlifted. Either a DC-3 or other large plane or helicopter could have clinic facilities within it or it could fly a self-contained unit (a "pod"), lower it into an area for a short period of time and then take it to another place, returning regularly. In Zaire, the mobile units might be boats, travelling up and down the Congo River and the three principal lakes.

Implications:

Mobile clinics offer special advantages to rural areas which have no services (as in Colombia), or in city slums where people are too poor to travel to a clinic or who would not go to a clinic for anything besides a health emergency. Again, the combination of a traveling clinic, especially one that offered services other than family planning alone, and a media program could be quite an attraction to people who have had little experience with either, and few entertainment or educational opportunities of any kind.

An additional strategy might be to let it be known that the clinic will move to a different, but close community or neighborhood before it returns. Many women who would not want to be seen using family planning services in their own community might readily go to another accessible community to use the mobile clinic services.

For maximum effectiveness, the media presentations and the clinic services should be available at night and in the early morning as well as during the day. Special programs over the radio or on TV or film could be coordinated with clinic programs in the evening, for instance - billed as "For Adults Only" or "For Men Only."

#### Integration of Family Planning Mass Media Programs into Informal Adult Education Settings

The strategy of combining education programs on radio or television with informal adult education programs in learning center settings has been successful in a number of countries in a number of forms, e.g., Radio Sutatenza in Colombia and Telescuola in Italy.

Family planning media programs or media programs including family planning as an integral part of informal education for improving the quality of family life, could be integrated into any number of learning settings, such as literacy programs, agricultural extension programs, mothercraft centers, day-care centers, women's and mother's clubs and vocational training programs.

The program would be supported by broadcasts on radio or TV with trained field educators serving as "multipliers" (see nutrition strategies) in learning centers who can follow-up on the broadcast with more detailed information, media and materials (including specially prepared

materials for that local area, e.g., slides, 8 mm, single concept films, etc.). They can also feed back information and problems to central programmers - via correspondence (if feasible), two-way radio, telephone (if feasible) or even tape cassettes. At learning or other centers, those with general referral skills can direct people to clinics, etc.

In areas with limited receivers (radio or TV), gathering interested people together to hear broadcasts in a learning center is logical, and is similar to the idea of radio forum or listening club (which have scarcely been utilized for family planning communication anywhere in the world). Even if there are multiple receivers in a neighborhood, the supervised group in the center setting provides an opportunity for group reinforcement, discussion, richer feedback through group interaction. Individual listeners at home can benefit from the broadcasts at the same time.

Advantages and implications of introducing family planning through the behavior setting of adult education centers:

- a) Such integrated programs provide a way of communicating with people via their strongest felt needs, starting where the audience is - emotionally, behaviorally and cognitively. Media-centered education designed to help people satisfy other often higher priority needs such as health, education, food or housing, can prepare them for feeling the need for family planning. They first need to be assisted in improving the lives of the children they have as well as meeting their own needs for security and coping ("best wedge" method).

- b) By presenting family planning as one of many ways of acting to improve one's life, of achieving mastery, people can more readily perceive family planning as part of a mosaic for bettering their lives (linked with associated problems and solutions, e.g., nutrition, sanitation, food production, education, health, etc.) Through such a multi-dimensional program, parents are introduced to the concept of "planning" throughout their daily life. They in turn will be better equipped to pass the conceptual value to their children.
- c) Without helping people to acquire other skills besides family planning alone, the potential of practicing family planning for improving the quality of their lives is diminished. Family planning is interdependent with other skills and concepts such as nutrition, health, sanitation, food production, etc. Conversely, AID and the TDN's will benefit through the increased effectiveness of their nutrition, health, agricultural, etc. programs. The benefits of these programs can be increased through the increased practice of family planning.
- d) The effectiveness of such a program is improved by:
  - 1) Coordination of mass media broadcasts with broadcasts with person-to-person communication.

2) On-the-spot evaluation and feedback. Not only do the programmers benefit from feedback from field workers, but the field workers get a sense of being a vital and integral part of an overall communications system and are better able to coordinate their own communications approaches with that of the mass media and vice versa, helping to eliminate the dissonance between the two.

3) Preparation and follow-up - field educators can prepare their audiences for what they will hear or see on the broadcast and can elaborate and explain further after the broadcast or during it - with visuals, less sophisticated media and take-home materials.

#### Use of Media in a Recreation Center

Entertainment and recreation are felt needs in many developing communities, especially rural areas and, perhaps, city slums where people are too poor to pay for entertainment. For many people, making love is their only recreation. One alternative for family planners could be to help set up recreation centers in these communities, sponsored by the community with some help perhaps from national organizations (family planning, health, welfare, education). The center could provide entertainment on a regular basis in the evenings - films, radio or television in areas with few receivers, film strips, dramas, etc. Some of the entertainment would be just that, but shorts or dramas with a message (nutrition, child care, family planning, agriculture, health, sanitation, sewing and crafts, etc.) could be interspersed with the straight entertainment. The recreation center could have special programs - "For Children Only," "Adults Only," "Men (or Women) Only."

Recreation centers such as these could serve as centers for other adult education programs also. Recreation centers could also provide an opportunity to familiarize developing populations with new media and media conventions the absence of which could hamper the effectiveness of widespread use of sophisticated media, e.g., films and television.

Strategies for Using the Media to Reach People Where They Are:

Signs, cassette tape recorders and transistor radio could be utilized on public transportation, or commonly used transportation -- to reach mothers and men with family planning information, and other family life information, as they travel to town and back, or through town. The bus drivers could perhaps be enlisted as "field workers" by providing additional "take home" materials and by pointing out sources of information and services along his route.

The Market Place:

Market places afford many opportunities to use the media -- from a loudspeaker announcing local meetings of mothers' clubs, vocational classes, etc. and local events, to rear-screen projections in a booth or along the main thoroughfare -- like open-air newsreels with colorful slides or filmstrips or 8mm films on many subjects pertinent to family life planning -- stories, dramatizations, short lessons, announcements of available services or opportunities -- in nutrition, family planning, education for men and women, quasi-social clubs or gatherings. The fare could be liberally laced with pure entertainment as well. A running "market-novella" could be shown several times a day on a certain day every week, concerning realistic problems of women and men and their families. Bargains for the day could be

announced, fashion shows presented in small segments, Julia Child of Kinshasa or of Manizales could show how to make a regional specialty -- selecting a different region of the nation each time.

Buses and market places are equally suitable for broadcast through a microphone of nutritious food bargains for the day, nutritious recipes or even of announcements related to basic education.

V. STRATEGIES FOR DEVELOPING FAMILY PLANNING PROGRAMS FOR RADIO AND TELEVISION

Stimulating and Simulating Informal Communication

Research has shown that "word of mouth communication has greater influence on acceptance (of family planning) than formal communications efforts." One strategy for developing radio and television (or other media) programs, therefore, might be to both simulate and stimulate informal person-to-person communication.

Implications:

Many target audiences in developing countries are not accustomed to learning in formal, structured situations, such as sitting and listening to a "lesson" from someone who is supposed to know more than they do about the subject. They learn by conversation, an unstructured, casual medium for learning, in the family, among friends, around the village well, or in the market place, or local coffee house or bar.

Family planning media programming can tap into this mode of learning and of spreading knowledge. This informal approach may be especially appropriate when the subject matter being "taught" is controversial or highly personal, affecting family life.

Examples of broadcast programs that might both stimulate and simulate informal communications:

1. Use of "informal" media, such as local stations (radio or television), with localized, colloquial, conversational formats, and messages, interests and language tailored to specific communities.

2. Informal formats simulating or replicating informal communication, such as conversational interviews, dialogues, drama, "Dear Abby" formats in which the announcer answers questions from readers, carrying on a "conversation".

3. Use of popular models who cut across classes and will initiate person-to-person discussion (eg. sports personalities in Colombia).

4. Actual "slice-of-life" interviews, testimonials, with opinion leaders as well as people similar to the target audience about their problems and successes in relation to family life planning.

#### Audience Participation

Media programs involving audience participation can be adapted to include family planning education. A program personality could answer listener's questions on many subjects, including questions and comments on family planning; materials might be mailed (if feasible) to listeners; people from the listening audience could be interviewed. Audience participation incorporating family planning communication could be adapted to many sorts of radio or television programs, such as rural and farm programs, or women's interest shows which include everything from cooking and housekeeping hints to health and fashion.

#### Implications:

Audience participation has a number of implications and advantages for family planners in particular:

1. Participation by listeners in a radio or television program immediately makes that program "theirs" in a sense. Sending in questions and comments constitutes a sort of public commitment and involvement which is an important lever for changing attitudes.

2. Participation helps circumvent the onus of external pressure to change attitudes and behaviour that may be attached to some formal, one-way programs involving family planning education. Rather than being perceived as a vehicle of outside authority, such a program can become a vehicle for people to act in solving their own problems. It becomes tailored to meeting their specific needs.

3. Audience participation (write-in or otherwise) is a feedback mechanism, a gauge by which to evaluate a program. It provides a basis for adapting the program over time by indicating at what stage the audience is in its learning, attitudes and needs.

Quick, "punctate" programming, variety

Developing populations may not be able to concentrate long on certain learning experiences or may be too busy doing other things to follow a long lesson or even dialogue or interview on radio, for example. A series of brief program segments, with considerable variety of content and type of material, might keep their attention longer or might correlate better with the sporadic time periods they are able to listen.

For example, a variety program could juxtapose music, answering letters and questions (about family planning, health, nutrition, child

care, crops, family relations, etc), a brief lesson with one simple point; a brief segment of a dialogue, or drama; a horoscope for the day (in appropriate countries. The variety is infinite and depends on the country or community.

#### Using the Leverage of Entertainment

One obvious but often overlooked prerequisite of teaching people anything is first to catch their attention. Entertainment, in any of its forms, is one way of achieving that.

Considering the use of entertainment in family planning programs is not to assume that those who find the program amusing will learn from it. An example of this problem occurred in a Haitian village where village women were highly amused by flannel board presentations and the bright colors used (to explain nutrition in this case), but did not learn from them. This may have been partly due to their unfamiliarity with the medium used, partly due to the formal didactic learning setting and partly due to the material's complexity. The "entertainment" in this case was not consonant with the target audience's mode of learning - which was through less structured, informal conversation.

Research is needed in each culture and region to find out both how people learn and what constitutes entertainment. For entertainment can be considered a cultural medium, a cognitive and emotional realm, which is highly specific to different groups of people. Formulas cannot be imposed from the outside without knowing the target population well.

Examples of ways of using entertainment in programming:

1. Media programs can provide popular entertainment as the main fare, and interject "shorts" or spots on family planning themes in between.

2. Pure entertainment can be used as a "come on" before the rest of the family planning "show", which could also be entertaining in some ways. For example, Bill Baird uses a belly dance by puppets before the rest of the puppet show about family planning, for Indian audiences.

3. Embedding a family planning message in what is otherwise entertaining is another approach. The choice of entertainment medium will depend on the culture. It might be a film, song, poetry, dance, puppet show or drama. In Africa, a family planning jingle became popular; in Indonesia, people may prefer watching long sagas on film or a variation of their traditional puppet theatre. In Korea and Taiwan, soap operas capture many women's attention.

4. Dramas portraying realistic problems and solutions and characters could be created. The scripts could be targetted to rural or urban barrio audiences specifically. The main characters could be from a reference group not too far removed socially and economically from the audience, close enough to share similar problems, but far enough to know better how to deal with them.

This type of media program can be effective for several reasons. It is an informal learning medium and may get the attention of target populations sooner than a formal learning medium would. It can put

each program aspect in perspective as one aspect of family life planning and improvement, i.e., the audience can see family planning in a life-like context which includes other family problems such as food, housing, education, and health. By this holistic mode of learning, the audience may be able to understand family life planning more easily than through fragmentary learning alone, as through radio spots.

Soap operas or "telenovellas" on radio or television could be effective in most countries. They are among the few vehicles that deal with almost the entire life space of the individual and as such they can interweave significant messages concerning family planning, nutrition, maternal and child health, education and occupations, etc. Through the development of sympathetic characters in a familiar setting new values, style of life and readiness for new learning can be facilitated.

Radio spots and other more fragmented educational or motivational media vehicles have definite value. Their effectiveness as parts of a whole program, however, may be enhanced if they are supplemented with some holistic media programs.

The use of serial drama for transmitting education and values is not new. "The Archer Family" and "Jack Armstrong" are examples from the British and American past.

One other example of entertainment media programming with a family planning message could be documentary or travelogue-type films illustrating how people in many different cultures and countries, developed and developing, handle their families' lives. Such a film, which could include the fact that people in the United States, Scandinavia (neutral politically), Europe, Asia, Africa and communist countries practice family planning.

## VI. STRATEGY OF THE INTEGRATED APPROACH VS. THE SPECIALIZED APPROACH

### Key Policy Decision Point:

Family planning programs can take two alternative approaches -- what could be called the "integrated" approach and the "specialized" approach -- to communication and services; or they may combine the two strategies in a variety of ways.

The integrated approach is the introduction of family planning communications to people in the context of or in combination with other programs, such as maternal and child health, adult education and literacy training, nutrition, agriculture, vocational training or child-care. A fully integrated approach might employ personnel knowledgeable in a variety of these areas as well as in family planning. They may act just on a referral basis or could be more actively involved in family planning education and distribution of supplies. The strategy of integration could extend to personnel, services, messages and educational contexts and behavioral settings.

A specialized approach would indicate communications channels, educational behavioral settings, services and personnel devoted exclusively to family planning.

### Implications of the Integrated Approach

#### Integrated services:

There are several implications of having family planning services integrated with other services in certain situations, rather than having a system of discrete family planning clinics.

a. Consistency with government policy -- In certain countries such as Zaire, pronatalist policy and lack of government support for family planning prevents the establishment of

discrete family planning clinics. Family planning services are more readily introduced, made available therefore, through related services such as MCH clinics and maternity hospitals. Even in Colombia, where the government supports family planning indirectly, but has no formal policy yet, family planning may be more acceptable if integrated with health clinics.

b. Convenience - Both men and women may be more apt to use a service such as family planning if it is located with other medical services they use, such as maternity or pediatric services.

c. Reassurance - A public health or MCH setting might prove more reassuring for women who feel they cannot speak of their personal feelings about family planning in what may seem a more mechanical family planning clinic setting. They may feel more comfortable with public health personnel from whom they and their families have received help before and with whom they can discuss related problems or even unrelated ones.

d. Anonymity, Privacy - Even in countries where family planning is acceptable, women like to maintain privacy when they seek such services. In countries where family planning is even more controversial, privacy is even more essential. The more services that are offered in one facility, the less information about the purpose of the visit is revealed to others.

Psychological and Cognitive Implications of the Integrated Approach in communications and educational settings for family planning:

a. It is a well established principle that to change attitudes or behavior, you must first address the "felt" needs of your audience. This means starting where the audience is, emotionally, behaviorally and cognitively. This may include demonstrating to people the relationship of a certain behaviour change such as family planning to their other vital daily concerns; or it may mean satisfying other higher priority needs before the audience will feel it needs family planning. Failure to address felt needs, as by directly confronting an audience with family planning arguments or pressure when they are not prepared for it may be simply ineffective or it may backfire, arousing hostility in what was a neutral audience.

For example, people may first need assistance in acquiring marketable skills to support their families, in improved agricultural techniques and cooperation, in feeding, clothing and educating their children and in ensuring the good health and survival of their children. In societies where family planning is unknown to many people, or if known, is well down the list of priorities - after the felt needs of health and food, etc., family planning is not likely to be accepted until steps are taken to meet those needs. An organization which demonstrates success in solving problems regarding as critical by a given population will probably be much more credible when it offers family planning advice or services.

The Ghandigram Institute in India provides an example of such a strategy. Health teams went to villages and asked what people wanted them to help out with most in the health field. After solving the first problem (usually clean water), the team asked what was

next on the priority list (eg. sanitation, infant mortality reduction, etc.). Having provided each major priority, the team was eventually asked to assist with MCH and the problem of too many babies too closely spaced. Reportedly, this approach was successful.

b. Integrated programs which aim at giving people a sense of mastery in some other aspects of their lives, such as nutrition, child care, agriculture, literacy, job training, etc., will prepare these people psychologically for adopting family planning as another way to control the pattern and the quality of their lives.

Family planning, like other "modern" ideas such as better nutrition or agriculture, depends somewhat on people's sense of mastery. And it is this feeling of mastery, self-determination, the capability of changing one's life, which is most difficult to convey to rural and urban poor in traditional societies. Ironically, those people we may consider most "in need" are often the hardest to convince that there are new ways of bettering their lives. Perhaps those who have had so little for so long have learned through generations to accept their fate and to be skeptical of promises of a better future, especially from those who are obviously better off.

Offering family planning as a "simple" solution to the problems of poor families will not make much of an impression. People will not immediately snap up contraception without education about the implications for them of spacing children or of having only the number of children they desire. Thus, the more desperate, poor and supposedly needy of family planning services a person may be, the

more skeptical he may be of quick solutions, and the more ready he may be to reject contraception if it becomes inconvenient or causes discomfort, physical or emotional.

Integrating family planning with other ways of improving family life helps to avoid over-simplifying the effect family planning alone would have on people's lives. Family planners must avoid giving people the impression that family planning will be a panacea to many of their problems, that families will automatically have enough clothing, food and education as a result. Integrated programs may help provide people with the other skills and resources necessary for effective family life. Nutrition, health, sanitation, fertility practices, food production and education are all interdependent and improvement in one area will be weakened without improvements in the others. Integrated programs further provide a means of demonstrating that change is possible, opportunities exist, and bettering one's life in one respect affects his changes of bettering it in other respects.

c. Finally, integrated programs provide an excellent medium for leading people to make their own cognitive connections between regulating fertility and improving life for their families in other ways. Rather than oversimplifying the message that family planning will be good for them, people will be able to link family planning logically and emotionally with associated problems (food, health, jobs, land division) and with associated solutions (nutrition, sanitation, education). MCH clinics and mothercraft centers in some areas have proven to be successful as sources of referrals to family planning services. One reason may be that women bringing in mal-

nourished children were led to ask themselves why they did not have enough food for their children. Thus a more general principle is established, that people can do something about improving their condition. That they can master their own affairs.

Alternative Ways to Implement Integration in Family Planning Programs -  
Services:

Family planning services may be provided in maternity hospitals, MCH or public health clinics - including those located on job sites such as factories, mines or plantations. Or family planning services could be located physically near other services such as educational centers, health and social centers. Mobile health or nutrition vans can bring word and service of Family Planning as a part of the miracle of modern medicine.

### Institutions

Family planning communication, referrals to available services, education and motivation can be channeled through many different types of institutions and programs devoted to informal adult education. The selection of these channels and the extent to which they are involved in family planning communication will depend on what programs exist, how many and whom they reach, what government and other institutional policy is and what family services exist.

For example, until family planning becomes condoned or approved by the government, family planning communications will probably have to be limited to those people who seek services in clinics and hospitals, as in Zaire. When government support has been established, as in Colombia, or formal policy has been established, as in Indonesia, many more communications options exist. Another prerequisite to expanded communications is the existence of a definite infrastructure of family planning services available to the target audience whether those services are medical or non-medical.

Integrating family planning values, education and information into existing informal educational programs has several advantages that family planning clinics may not have. This strategy uses the leverage of existing structures, reaching a far greater audience than those going to clinics. The credibility of the programs and personnel may already be established and the people seeking the informal education are already motivated toward learning new ways of bettering their lives.

What programs might lend themselves to the integration of family planning communication? Mothercraft centers, feeding programs, day care centers, literacy classes, women's clubs and mother's clubs, vocational training, agricultural training or other extension education programs, and listening clubs are a few of the possibilities.

Examples: Mothercraft centers in both Guatemala and the Philippines have been successful in referring mothers to family planning clinics.

World Education, in their literacy training in India and elsewhere have been subjects the villager cares about: his crops, his family's health, the legends of his people, means of acquiring marketable skills. Family planning fits in well.

Labor unions in Colombia introduced sex education and population dynamics into their adult education courses. Another promising experiment in Colombia is a program involving the Coffee Grower's Association and PROFAMILIA to train agricultural agents so they can reach farmers with family planning information and education. The agricultural agents have already established a close relationship with men on the local level and are respected. The project is just getting under way, but if it is a success, it may serve as a model for other types of integrated programs.

Family planning values, information and education can be integrated into other programs on a variety of levels. Materials may be disseminated through other programs and media presentations can be made by family planning specialists; or the program staffs themselves can be trained, initially or in-service.

Personnel and Training:

There are roles and times in the evolution of family planning programs for both specialized and integrated workers. The pattern around the world in family planning programs seems to be to train specialized workers in the beginning. This may be necessary for many reasons - including bureaucratic and funding structures, staff motivation and sense of professional identify.

In lieu of selecting and training a new sort of personnel in the integrated approach, integration can be achieved on lower levels, less obstrusively. For example, Gerald Winfield refers to a strategy of "seepage" in the training of workers in many fields. Thus family planning workers could be taught some nutrition during their training; and ideas and information about family planning could be introduced little by little into the training of other kinds of workers - in social work, education, agriculture, nutrition, etc. They could at least be given enough information so they can refer people to family planning services when appropriate. In this way, there will be multiple channels of information (human media) in each community, each of whom reach and are respected by particular audiences. Regardless of how many channels are used for communicating family planning, there should be a thread of consistency in message and approach so that each channel or media confirms what people have heard from the others. Otherwise, the messages may contradict each other or confuse the target audiences, losing much of their effectiveness.

Example of integrated training program that can be improved via the communications media.

Iran's family planning program may be one of the most ambitious examples of an integrated approach to training in the developing world.

The breadth of its training program would probably not have been possible without the backing of strong national policy and a central government organization from the beginning. Thus, Iran by-passed the years of voluntary and unofficial efforts that are characteristic of many other developing countries before a national policy or organization emerges. Also, Iran has in its Family Planning Division in the Ministry of Health, one center of policy training and communications, unlike other countries which, like Colombia, have several family planning agencies in public and private sectors, each with different training, information and policy.

The educational program began with a heavy flow of information via talks, seminars and short courses for decision-makers at all levels from national to local, political, professional and community leaders. These communications efforts were designed to cover topics such as population statistics, methods of contraception and the nature of Iran's program. The design and nature of this initial leadership education effort is probably a key factor in the consequent success or failure of an integrated program.

Orientation sessions across the nation were held for all health personnel; intensive courses were given for physicians, nurses and midwives. Family planning training has been introduced into the curriculum of medical schools of social work, nursing, midwifery, home economic agents, rural cooperative supervisors, malaria eradication program auxiliaries, traditional midwives, members of women's associations, rural teachers, curriculum developers for public schools and universities, religious leaders and the national service corps.

The national service corps is another key factor in the unusually fast development of Iran's program. An alternative to military duty after 6 months of military training, these corps of young Iranians have been the largest and perhaps the richest source of field and clinic personnel in Iran. All corpsmen in the Health Corps, the Literacy Corps, and the Rural Development Corps, plus 1000 in the Women's Corps receive some family planning instruction. The Women's Corps, including graduates of medical school, college and high school, are trained for 3 months and then work as medical personnel or field motivators.

The strategy of tapping this source of young, educated, motivated youth has several advantages. They will be the leaders in the years to come and are likely to carry on the precedent set by their early training.

Also, by permeating all community services and levels of society with trained field personnel before instituting an intensive mass media program, the media can be designed to complement the person-to-person education already established. The coordination of field education and mass media has been one of the most difficult strategies to implement in all family planning programs. Iran may be one of the first to approach success in a truly coordinated communications program.

Universities and public schools are other major communications channels tapped by the family planning program. Material on population, sex education and family planning has been introduced into textbooks for grades six through twelve. Universities offer family planning to students in agriculture, law economics, community planning

and other fields, in addition to medical and public health students. The University of Teheran offers a degree in family planning which covers economic, psychological and social aspects of the field, as well as demographic aspects, communication, personnel and administration.

The program has been eminently successful; however, in the opinion of both Iranians and others it could be improved by the effective use of communications.

The well organized cadres of aides and field workers provide a perfect basis for extensive radio and Television education in a variety of subjects as well as the use of the smaller technologies. Excellent channels for feedback and the integration of feedback exist in the well disciplined para-military and military structure. Technical facilities for distribution, storage and repair are available.

The nation has a sizeable number of fine poets, dramatists and artists. The sole requirements in this case would seem to be an Institute of Communications and an adequate communications system (hardware). The function of the former would be to coordinate the nation's resources in the service of sound programs using the media. The purpose of the system (a satellite is now under discussion) would be delivery.

Although many developing nations do not have the resources or other unique advantages Iran has in the development of its program, many facets of its integrated strategy could be adapted elsewhere, specifically to Colombia, and Indonesia.

Media Programs

The integrated approach can be adapted to any media program format or program, whether it is a radio literacy program like Radio Sutatenza in Colombia, a documentary, soap opera or drama, variety show for housewives or the family, etc. The following are two examples of integrated radio programs that are reportedly popular.

Haiti: A physician in Haiti, Dr. Harry Bordes, has a radio program called "Conversations with Dr. Bombosh" (a voo-doo name). In the indigenous Creole language, the program has a "Dear Abby" format, with audience participation, informal conversational tone aimed at rural women. The doctor reads, discusses and responds to verbatim letters written in by listeners about maternal and child health, nutrition, child care and family planning.

El Salvador: PATER, is the name given a media campaign as well as a weekly radio program by the Demographic Association of El Salvador. Besides reflecting the theme of responsible parenthood and the importance of reaching fathers as well as mothers, the acronym PATER stands for Parenthood, Food, Housing, Education and Religion. The slogan implies an integrated approach: "Have only the children for whom you can be a responsible parent" (eg. by providing adequate food, housing education and religious upbringing).

Produced in prime time (right after a soccer game on Sundays), the half-hour radio program PATER has been popular. The format is fast and varied, including answering questions from listeners; a nationally-known artist; editorial; short miscellaneous information notes; an interview with an opinion leader; public opinion; and a brief episode from a serial drama, "Life's Conflicts."

### Strategy of Specialization

The strategies of integration and specialization are not mutually exclusive. There are appropriate roles for each of them in different functions of a family planning program and at different stages of the program's development and of national policy development. Most developing countries do not start their programs as Iran did, with strong government backing, central administration from within the government, and access to large numbers of field personnel in many different disciplines.

For many countries, such as Colombia, where government support is not strong and where voluntary and medical organizations have taken the lead in family planning, a specialized approach has been the most logical to start with. The need for a firm family planning identity is met in many countries like Colombia by training specialized family planning field workers and starting education in a clinic context.

This specialized approach to education may also be adequate in the first stage of a family planning program because the initial acceptors are people who were ready and motivated anyway. It is after the plateau of initial acceptors has been reached that a program may need to shift from or supplement specialized personnel, services and media with an integrated approach. It is difficult to reach new audiences, the neutral or indifferent people, without a new communication strategy and new communications channels. In certain areas of Colombia, such a shift in strategy is indicated.

FAMILY PLANNING: COLOMBIA

A. Overview of Family Planning Program, Policy and Communications:

Family planning in Colombia is recognized and included in government services, but there is no official policy yet. In the face of considerable Church opposition and lack of support from significant numbers of the medical profession, family planning has made substantial progress in Colombia since 1964, when the Colombian Association of Medical Schools (ASCOFAME) created its Division of Population Studies.

There are three principal family planning or population-related agencies operating in Colombia, each performing somewhat different functions, but with little even informal communication between them. Nor is there any coordination between their activities or communications efforts. ASCOFAME performs an educational role - training medical personnel and social workers - and conducts research into problems such as abortion, birth rates, fertility and contraceptive methods. Aside from personal and professional communication, designed to build knowledge, ASCOFAME plays no public information or motivation role.

PROFAMILIA, a private family planning organization founded in 1966, has been the public communications agent in Colombia, although aside from a series of radio spots in urban areas, it has concentrated on posters, pamphlets, storybooks and person-to-person contacts through clinic workers and outreach workers. Emphasis has been on responsible parenthood and maternal and child health rather than emphasizing "birth control." PROFAMILIA has 32 clinics, limited to urban areas.

Government involvement in family planning has been cautious. Bienestar Familiar offers family planning services through its 600 clinics and 26 hospitals have post-partum programs. However, family planning is given relatively low priority in terms of budget and personnel. The government's role is passive; medical personnel are trained in medical aspects of family planning, but little other information or motivation training or activities are supported.

Other smaller family planning communications activities are being generated in various extension education organizations (eg. ACOVOL, ICA, INCORA, and the Colombian Coffee Growers' Association), in universities (eg. University of Cali program for community medicine) and women's groups such as the Colombian Association for

Scientific Study of Population. One union, ORIT, plans to incorporate family planning education into its program. There is no coordination between these separate efforts, and they want and need training and educational materials.

Family life and sex education has been introduced on a pilot basis into schools in two towns and may be extended throughout Colombia.

To date, family planning services and communications have been directed exclusively to urban areas, to women, and to initial adoptors. Almost no services exist in rural areas (which would prohibit extensive information and motivation activities in those areas). Field workers have been women and the only effort to reach men in Colombia has been through a recent pilot effort by cafeteros, agricultural promoters in the Coffee Growers' Association. The entire emphasis in Colombia to date has been to recruit first adoptors. There has been neither training nor communications designed to reach drop-outs or to follow-up adoptors. Follow-up is lagging behind more each year; in 1970, there were 3.3 cases needing follow-up for every new case.

Colombia's family planning program has evolved in little more than five years to the point where new and more communications are needed, including training, software development, media strategies. The first wave of initial adoptors has already begun to plateau and to decline in some clinics, leaving workers to cope with the hard-core or neutral, indifferent people who remain after the "ready" acceptors have been cared for. Field workers tend to get frustrated and pushier as people get more and more resistant, which is not only self-defeating but also lowers workers morale. Field workers in Colombia are not yet trained to meet new and different populations.

As more organizations enter the field, coordination or at least prevention of dissonance between their approaches and messages becomes more important.

B. A Number of Program Strategies Particularly Appropriate to Colombia Are Recommended. These May Be Employed in Isolation or Parallel With Other Strategies.

1) Mass Media in Clinic Settings: Beaming radio or television programs to clinics (as well as to general audiences) is especially appropriate to Colombia. It would serve a direct function of educating the women in the clinic and an indirect one of inhibiting the spread of rumors which frequently occurs in the clinic waiting rooms.

The media programs themselves could deal with the idea of family life planning on a variety of levels, from the concept of planning itself, to responsible parenthood and the maternal and child health benefits of spacing births, for instance. Other family life and childraising skills could be discussed (from nutrition and care of young children to basic education for children and perhaps, welfare benefits). The type and amount of information feasible for broadcast would change over time. For example, in the future, it may be possible to allude to abortion in Colombia and its dangers more openly than now.

One alternative program format lending itself to clinic settings in Colombia would be a telenovella with different short segments dealing with the family problems current to the target population - preferably specific to rural, urban and regional areas. A "telenovella" on radio, produced by the Population Reference Bureau dealing with family planning was immensely popular in Colombia several years ago. However, it reached people without access to services and was discontinued. Now may be a more appropriate time to produce another such program. If the programs were on television, it might be a special attraction in itself for motivating people to come to a clinic, since few barrio dwellers would have access to TV and there is none yet in rural areas.

Broadcasts heard simultaneously by home audiences would help raise the level of awareness of family planning, would give social support to adoptors and help meet the drop-out problem. It would also stimulate discussion and would increase the impact and multiplier effect of adoptors. Thus, the broadcasts (whether telenovella, mother's club of the air, or family life skills program, for example) could be designed to reach general audiences alone, or be coordinated with other media and face-to-face group discussion in a clinic.

Implications: Coordinating mass media in clinic settings has the advantages and implications described in detail in the Family Planning Section of this report. It is especially appropriate for Colombia since an infrastructure of clinics and hospitals already exists, but clinic personnel badly need software, as well as the support of the public media. This strategy would also help them coordinate their approach with that of the mass media, or at least prevent dissonance between the two. By feeding back information to programmers on the audience reaction to the media, the clinic personnel will feel involved in the system as active participants and as agents of change, whereas their job and approach may be getting stale, inflexible and depressing as they meet more hostile populations.

2) Associated Strategy - Appropriate Use of AV Materials to Provide Specific Information in Clinics and Mobile Units.

In their preparation and follow-up of the broadcast, Colombian field workers can make use of materials and simple audiovisual technologies (slides, filmstrips, single concept film loops, super 8mm films and print take-home materials) to meet specific needs of local areas - eg. rural/urban; mountain/coastal/valley - and to meet problems specific to that area. Single concept film loops, for example, dealing quickly with a specific rumor or fear could be flown to clinics (since air transportation is often better and faster than roads in Colombia). These could be used on a crisis intervention basis - for use in the clinic as well as by outreach workers. A variety of materials geared to dropouts could be provided to outreach workers, meeting a current urgent need.

3) Use of Mobile Clinics with Mass Media Programs

A variation of beaming mass media programs into clinics in Colombia would be to employ mobile clinics in much the same way, with many of the same advantages. Colombia could reach some rural populations by a mobile vehicle containing a multi-purpose clinic including family planning services, as well as barrios where people are too poor, uninformed about available services or too far from clinics. Clinics could be flown into more remote areas which would be too difficult to reach by road. A large plane could contain the clinic, flying from place to place on a regular schedule, or could leave a unit in an area and pick it up later to carry to another area. It would return regularly for follow-up, reassurance and handling complications and new adapters.

During its stay in a community, the mobile unit could coordinate radio broadcasts and a variety of small media for preparation, follow-up and take-home purposes.

An additional strategy might be to let it be known by radio to adjacent areas that the clinic will move to a different, but close community or neighborhood before it returns. Many Colombian women who would not want to be seen using family planning services in their own community might readily go to another accessible community to use the mobile clinic services.

For maximum effectiveness, the media presentation and the clinic services should be available at night and in the early morning as well as during the day. Special programs over the radio could be coordinated with clinic programs in the evening, for instance - billed as "For Adults Only" or "For Men Only."

Implications:

The benefits include:

- 1) Lower cost materials can be used.
- 2) These can be modularized for special local application, or even specified to a particular target population by the use of an overhead projector of 8mm cine or polaroid photography.
- 3) Specialized training is possible; representatives can be selected from among local leaders and supplied and left on site when the clinic moves on.
- 4) An assessment of needs and characteristics of many small communities can be made and directed to policy planners in the capitol for general program development use. National programs, eg., radio and TV, can thus be made more responsive to local needs.
- 5) The responsiveness of the government or the private agency can be demonstrated by their willingness to "come to the people," providing person-to-person contact.

Key Policy Decision Points:

- a) Should mobile clinics be for family planning only or include other services?
- b) Should they be government or privately-sponsored or international (eg. PAHO).
- c) What is the most cost-effective and geographically appropriate type of vehicle for each region?
- d) What back-up personnel, services, resources, supplies are necessary in each area to carry-on and handle emergencies, etc. when the mobile unit is not there?
- e) What communications materials are appropriate to each type of vehicle and region?

4) Use of Broadcast and Other Media for Training

The extent to which the mass broadcast media can be utilized for de-centralized training of family planning personnel in Colombia is a delicate question and will change over time. At this time the full content required for the training of field workers

might not be amenable to broadcast. However more limited training via radio, in conjunction with other media, could be used right now in Colombia to meet the great need for field workers and trainers of field workers. Television might be used in the future in cities and eventually in rural areas for some non-controversial aspects of training.

Radio could, for example, be used:

- a) to teach field workers how to coordinate their activities with a related media program, for maximum effectiveness of both;
- b) to teach relevant but non-controversial or non-intimate subject matter that family planning personnel may need to know - such as basic nutrition problems and alternative solutions in their target populations, maternal and child health concerns, child raising, knowledge of all available family-relevant resources or programs in their area and their functions;
- c) to aid in teaching workers how to adapt centrally produced materials to their region or to make simple materials themselves and use them (eg. filmstrips, flip charts, slides, tapes, even 8mm cassette films using local people and settings and relevant to local needs).

Use of non-broadcast media for training: A great deal more could be done with non-broadcast (limited access) media to train initially and re-train and refresh Colombians in their work locale. These media could be used in a program with broadcast or alone. Tape recordings, for example, of typical questions, fears, rumors etc. from men and women (especially drop-outs) about family planning, and alternative responses by model field personnel could be developed and shipped to local clinics for training purposes. Alternative media are too numerous to list, but include film loops, 8mm films, 16mm films, slides, etc. (See Section by C. Ray Carpenter and Section on Use of Media)

Implications:

- a) Such a program could make field workers more flexible, would boost morale and capitalize on the experience of the best people in their country.
- b) Privacy necessary for certain training material would be protected.

- c) Non-broadcast media can be less expensive, simple to operate, and more easily programmed to meet the specific characteristics of field personnel in local areas than broadcast media alone.
- d) As they are trained with the small media, both the training process and use of small media provides a model and hands-on experience with types of media and materials workers will be using themselves in their work.
- e) Through de-centralized training on the job site, rather than in a central location perhaps far from home and work, workers are trained in the context of real problems and challenges, not in an artificial situation; they do not have to go to an unfamiliar environment and lose ground at their job at the same time, etc.; trainers can evaluate the relevance and effectiveness of the materials immediately and more quickly adapt the training program to actual needs.

Key Policy Decision Points:

Colombia at the national or agency level will have several key decision points affecting such a training program:

- a) Should the training programming be produced by each agency for its own members or by a separate agency such as the Communications Instituto described in Overall Programs for Colombia?
- b) What media should be used (radio, television, other media, and in what combinations or sequence of program development)?
- c) Should training be de-centralized or conducted in central locations or both.
- d) What should the training content be and how does the content govern the selection of the media; what content is appropriate for broadcast?

5) Integration of Family Planning Communications into an Agricultural Extension Program

The Coffee Grower's Association in Colombia has recently integrated family planning education into its agricultural extension program on a pilot basis. With the help of PROFAMILIA, the private family planning association, cafeteros (agricultural promoters)

were given family planning training. They are distributing (selling) condoms and in some cases, their wives are distributing pills (for a small fee). The program has just started and desperately needs educational materials. The communications media could do much to make this strategy more effective. These potentials will be discussed below.

In-depth Strategy Characteristics and Implications: This strategy demonstrates depth on several dimensions. It is one of the only family communications programs in Colombia addressed to men. Almost all other family planning workers in Colombia are women and reach only women. Furthermore, until now, there have been almost no family planning services or supplies in rural Colombia, and little family planning information or education.

Since family planning is still politically controversial in Colombia and the government maintains a passive role, such a "low-profile" private effort utilizing agricultural rather than family planning workers is politically more acceptable.

Most important, perhaps, is the strategy of introducing family planning information to rural men (and their wives) by the respected cafetero - a man who has an established position in their lives and who has credibility. He has already proven himself by helping them with priority problems (agribusiness, better production methods) and related problems concerning the family, perhaps. Without the alleviation of such higher priority needs first, the farmers he is reaching would not as likely perceive family planning as a felt need. Also, the cafetero has been engaged already in changing people's attitudes, in helping them live better by learning to cope and to plan. He has already prepared them somewhat for another aspect of planning - planning their families.

Not only does the cafetero program address the felt needs of individuals, it also addresses national priorities, such as improved agribusiness and improving the lives of rural populations. These have become especially critical since the recent change in land tenure leaves the farmer facing many new responsibilities. Such a program might help stem migration to the city barrios.

On the negative side, it can be argued that family planning is not the cafetero's control or interest and it may therefore suffer from neglect or lack of skill. These can be regarded as obstacles or as challenges to the skill of the training agent.

The Role of the Communications Media: 1) Broadcasts to be coordinated with field program: A "Farm School of the Air" or a

"Rural Family Life Program" addressed to farmers, specifically coffee raisers, and their families could be broadcast on the radio at times when cafeteros can gather men in a local center. He can then prepare them for the broadcasts and follow it up with a variety of other media and materials - from slides and film strips to simple booklets and other material to take home. These materials can be centrally produced, but modularized, to meet the special needs and characteristics of a particular region or community. Thus, a film strip could have different frames substituted to meet local needs. Cafeteros will be able to feed back information to the broadcast programmers on what changes are needed.

2) Training: The communications media could play an important role in training cafeteros initially and in giving them new information over time. The controversial nature of actual contraceptive information in Colombia makes it unsuitable for radio or television. However, the smaller technologies e.g. tape and single concept film loops can be used. Even broadcast can help train cafeteros in certain skills, such as how to coordinate their work with all media, including general family planning broadcasts - for instance, about responsible parenthood. They could be trained in how to produce simple media locally and in how to use smaller, simple technologies such as tape recorders, film strips, film loops, slides, 8mm film cassettes, etc. in their work, supplementing the broadcast. Use of the media for remote training of field workers in their rural setting has many evident advantages over bringing them to a central location.

C. Consulting Strategies: AID Key Policy Decision Points

A. Unilateral Foreign Aid or Mutual Assistance

The U.S. has several alternatives in working with Colombia in the field of family planning. It can give "unilateral" aid to Colombian institutions or can work in a cooperative way for the mutual benefit of both Colombia and U.S. populations.

Cooperation can be implemented through programs that 1) tap successful models of family planning efforts in Colombia to derive applications benefiting U.S. populations, and 2) conduct simultaneous or parallel research or programs in the U.S. and Colombia, utilizing communications media for family planning. Colombia's family planning program already offers some models that may be tapped for the applications to the U.S. For example, the cafetero program designed to reach rural men in Colombia may be examined and program applications derived for migrant workers and possibly Indian populations here.

The use of the communications media for family planning in the U.S. has scarcely been developed to its full potential. Parallel media programs could be implemented in both the U.S. and Colombia to inform and motivate developing populations. Methods of modularizing and adapting materials to meet local conditions could benefit both nations. The use of broadcast and other media for de-centralized training is another area of potential cooperative program development.

Cooperative efforts such as these would make U.S. aid for family planning more acceptable, perhaps, in Colombia, where in 1967 the semi-official church newspaper described such aid as an attempt "to sterilize underdeveloped countries in an effort to stop population growth that implies so many political and financial difficulties for (the U.S.)" (in El Catolicismo, January 22, 1967).

#### B. Alternative Choices For Agency to be Assisted

The need for assistance in the area of communications for family planning has been expressed by organizations in both public and private sectors in Colombia, including PROFAMILIA, ICA, INCORA, and ACOVOL, etc. Bienestar Familiar has asked the assistance of PROFAMILIA in training its personnel to be better family planning communicators.

The U.S. has quite a few options for direct assistance to Colombia in this area. It also has the alternative of channeling all its funds through international organizations, which is a lower-profile alternative to channeling all funds through IO's.

## Family Planning: Zaire

### I. Background

Zaire encompasses areas with significantly different levels of development, problems and priorities - social, economic, demographic and medical. Family planning, therefore, will mean one thing in rural areas and something else entirely in urban areas. The role of family planning programs and communications in Zaire must be geared to help people to achieve an economically, socially and medically optimal family-size whether that implies raising fertility (in rural areas) or lowering it (in urban areas).

At this time, family planning in the sense of family limitation in Zaire lacks government support, either directly through national policy or indirectly. Almost no infrastructure (administrative, medical or personnel) exists for family planning, making information and motivation via mass media to promote use of services impractical. Furthermore, both the law and government pro-natalist policy might prevent immediate use of the public media to disseminate such information.

#### The contrast in conditions and needs in urban and rural Zaire:

The demographic needs of Zaire favor increased population in the rural areas. Rural populations are depleted by high death rates (especially infant mortality), migration to cities and sterility from widespread venereal disease. The lack of health services, plus social factors such as extended families, relative seclusion of women, few alternative roles for women aside from child-bearing, and low levels of literacy also would operate against family planning in rural areas.

In urban areas, on the other hand, population-related problems are mounting, some medical leadership is available, and the urban population is much more ready for change. Zaire's cities have a decreasing death rate and lower infant mortality rate than rural areas, a higher birth rate, higher level of literacy, a tendency toward nuclear vs. extended families, and some alternative roles for women outside the home.

Urban populations in Zaire have mushroomed far more rapidly than the government could cope with since 1959. The population of Kinshasa alone tripled between 1960 and 1968. The death rate in urban areas is half the death rate in rural areas, whereas the birth rates are high compared with rural areas. Since the national average births per thousand is 44, the rate in cities should be considerably higher.

The natural growth rate of urban populations is 4.3 percent annually, vs. 1.8 percent rural increase. As a result, all segments of the overcrowded urban population are affected by problems of unemployment, housing, inflation, food shortages, and overtaxing of health, water, sanitation, transportation and education services.

In addition, the population in cities is getting younger all the time. These young people are dependent, often illiterate and unproductive. In 1967, 61 percent of the people in Kinshasa were under 20 years old; 52 percent were under 15 and 21 percent under 5.

Attempts in 1968 in Orientale Province and in Kinshasa to stem the rural-urban flow by sending unemployed persons back to their villages were not very successful. In-migration can be expected to continue for many years to come.

A final factor contributing to a climate of change in family life planning in urban areas is the gradual changes in the role of women. In urban areas women are becoming more than productive and reproductive units for the family and descent group. Part of the change is a result of new kinds and sources of wealth. Women no longer have plots to cultivate; on the other hand they are expected to help support the family as petty traders, manufacturing palm oil or selling food and beer, for instance. They are less strictly supervised, have numerous social clubs and have new roles in the family.

The man customarily controlled the family, but in urban areas in the 1960's the husband's absence from home during much of the day is causing his influence to decrease and his wife's authority to grow. She has some financial independence and is free from the restraints imposed by the extended family or village. She must still be faithful, respectful, obedient and reserved, but not to the extreme degree as in the rural village. Fertility, good housekeeping ability, and caring for children well are still desired qualities in wives, but social adeptness and education are also growing important.

All of these changes in women's role improve the climate for the introduction of a responsible parenthood or child-spacing program. When women have more decision-making authority in families; when they begin to sample alternatives to being wives and mothers alone - through education, jobs and new social groups of their own, they are less apt

to tolerate unlimited and unplanned children. When health facilities and conditions assure them that their children will survive; when there is no longer the support (child-care) nor the constraints of the extended family, women have even more incentive to space their children. Consumer attractions and inflation in cities eat up families' budgets and children are more difficult to support than in a traditional, agricultural setting.

"Child-spacing": An appropriate alternative for Zaire:

The concept of child-spacing would appear to be the most appropriate concept of family life planning for both national leaders and families in Zaire. Child-spacing implies achieving the level of fertility that allows people to have the number of children they want and need, while maintaining the health and well-being of mother and children. Unlike child-spacing, the idea of "population limitation" or "population planning" would be anathema to national policy makers, as would the concept of "family limitation" or "birth control".

"Child spacing" helps preserve the health of the mother and gives the pre-school child a greater chance of survival, since many young children in the Congo die of malnutrition when their mothers stop nursing them to have another baby.

To be most effective, the "child-spacing" idea must be closely linked with nutrition education, well-baby care, sanitation, V.D. control and health education, since all of these factors affect the survival of children.

Finally, the concept of "child-spacing" is not new in Zaire. What was once practiced can be reinforced. A form of "child-spacing"

through continance has been practiced, with intercourse sometimes forbidden with a woman for two years after the birth of a child. To what extent this practice is carried on in Zaire now is unclear, but it may form a basis for the introduction of a form of family life planning communication consonant with national and personal priorities.

## II. Program Strategies

### Integration of family planning education into extension education geared to the special and different needs of urban and rural areas

Since family planning in the sense of family limitation is neither supported nor condoned in Zaire to any significant degree, any use of the broadcast media for that purpose will be contingent on a future change in government policy. Large areas of Zaire, especially in rural areas, suffer from infant mortality, sterility from venereal disease, and depletion of the population due to migration to cities. Family planning in these areas, then, means increasing fertility for those who cannot have the children they desire, and helping families ensure the survival of those children who are born.

The strategy in rural areas would be to integrate family planning in the above sense into a rural life extension education program. Rural life workers could be trained after an initial phase at a regional center by radio and supplementary materials in what and how to teach families in rural areas... in how to work with broadcasts geared to multiple rural needs, in how to use and make simple visual materials, in instructional techniques, etc. Use of the media to train rural life workers would be a primary emphasis.

The rural life workers would include family life planning in their program in a variety of ways: they would use simple media to help promote better nutrition, child care, sanitation, disease control (especially malaria and venereal disease), food production and agribusiness. Over time, as fertility increased to the point where people wanted to be able to choose when and how many children they had, the concept of child-spacing could be introduced.

The strategy in urban areas would be to introduce the idea of family planning in the sense of "child-spacing" as an alternative to abortion. This would involve informal education programs. At first, broadcast media (largely radio for the near future) would concentrate on making the people aware of the possibility of child-spacing and on referring them to facilities for further information. More generalized broadcasts addressed to the prevention of illegal abortion, venereal disease and promoting material and child health themes would be acceptable even at this time and consistent with existing need. Urban workers in the Foyers (Women's home economics clubs) and men's clubs recommended in this report (to offer basic education, literacy, sports, etc.) could introduce the idea into their programs, in conjunction with the media programs, it is suggested be added (e.g. a "Foyer of the Air" for mothers with core basic education curriculum on the radio). Again, the emphasis would be on training these workers in less controversial aspects of their program via radio, with the more delicate aspects such as motivational techniques taught via limited access technologies: tapes, filmstrips, film loops and films. (The films might be less preferable since they are a fast-moving and less familiar medium for learning and because they are more expensive and therefore less adaptable to local needs.)

Since Zaire is a multilingual nation, centralized production of materials may be less appropriate than production of modularized or locally-produced materials...simpler materials that are more appropriate to the immediate needs of the local area.

Implications:

1) The above strategies are intended to address national priorities: in rural areas, trained workers, increased fertility, improved agriculture and stemming of migration is needed. In urban areas, curbing abortion and improving family life skills and skills for coping with city life are needed. Family planning can be integrated into these higher priority programs when national policy permits.

2) The credibility of family planning efforts in urban areas will be greatly increased if an organization first promotes fertility services and meets priority health and family needs in rural areas.

3) The concepts of family life planning and of child-spacing can not only improve family life and foster population growth in rural areas, but can prepare those who may migrate to cities. They will be familiar with the family life planning possibilities, services and supplies available to them over time.

Strategy: Use of Communications Media in Post-Partum Programs

Media such as slides, film loops, filmstrips and take-home materials such as non-verbal picture books can be utilized to inform and motivate post-partum mothers in maternity hospitals or post-partum clinics to the idea of child-spacing. A major purpose in urban areas would be to inform them of alternatives to abortion, as well as to ensure optimal health for themselves and their new baby.

Implications:

1) Post-partum programs in maternity hospitals or clinics have proven to be among the most successful around the world. The post-partum time and setting is a good time to approach mothers. Women who have just given birth have demonstrated their fertility. At the same time, they are feeling the full impact of having been pregnant and giving birth and are anticipating the tremendous demands of their newborn, particularly if they have other children at home. The birth of a new child is a good time to take stock, plan ahead, to make changes. Women with several children will most likely be the best subjects for family planning information.

2) Maternity hospitals and post-partum clinics are among the few facilities where groups of women with similar concerns, problems and needs are accessible via the media. As a group, they can reinforce each other and adopt an innovation more quickly than they would if approached alone or in the context of their extended family. Care must be taken, however, to give media presentations only to those who express interest. Otherwise, the group process could boomerang, with fears and negative rumors dominating.

3) Maternity hospitals are likely to be among priority health facilities to be increased in Zaire and many exist already - providing a good basis for the introduction of family planning.

Use of Communications Media for Child-spacing Programs in MCH Clinics

Filmstrips, 8mm films, cassette tapes, slides, and single concept films, etc. can be used to introduce the idea of child-spacing along with other maternal and child health concepts to mothers in the setting of an MCH clinic. If government policy permits use of radio

broadcast in the future for family planning, radio broadcasts such as a "mother's club of the air" or "family life skills" program could be coordinated with media in the clinics. Some of the MCH clinics could be mobile, on boats reaching interior regions via rivers and lakes.

Integrating child-spacing information and services into MCH programs may have advantages over separate family planning services in Zaire.

Implications:

1) Family planning will be most acceptable in Zaire if it is regarded as a family health service. Zairians have shown particular interest in all medical and social institutions designed to safeguard mothers and children. Children are regarded as the true wealth of a family and Zairians have appreciated maternity and child welfare clinics.

2) Meeting priority needs of the nation: Zaire lacks a national network and is struggling to regain the level of health services they had prior to independence in 1960. Maternal health and particularly the survival of children under five are of primary concern and are also prerequisite to the acceptance of family planning. The use of the media to promote such programs will provide a firm base and credibility should government policy shift to more active family planning work.

3) Mothers will be accessible, physically and psychologically, to family planning services at MCH clinics. Associating child-spacing and nutrition, etc. with the survival of a child they brought to the clinic is most likely to be effective.

Reaching Gatekeepers as a Prelude to Reaching the General Public

Targetted, limited-access media addressed a) to those who influence government policy and b) to those who have access to large numbers of people can be an effective prelude to addressing the general public.

A preliminary step would be to determine the interests and goals of each specific group, to find out what they consider top priority concerns and objectives for the nation and special interest groups they represent. Communications concerning family life planning can then be made congruent with their perspective.

The first priority target group: those who influence or determine government policy might include:

- Government leaders, national and regional level
- Economists and national planners
- Business and industrial leaders
- Medical professionals
- Lawyers
- University professors
- Communications Media leadership
  - Newspaper and Magazine Editors and Publishers
  - Journalists
  - Radio and TV Programmers

Short films, slide shows and radio could be programmed to increase awareness among the elite of population dynamics in Zaire and of the implications of population growth and distribution for national social and economic goals. The contrast in needs between rural and urban areas could be emphasized, as well as the relationship between rapid population growth in Zaire's cities and education, economic growth, manpower and job opportunities, health, housing, nutrition and food production.

A second priority audience: those who have access to large numbers of people might include

- Women's associations and clubs (leaders)
- Mayors
- Mine owners
- Plantation or major land owners
- Industrial leaders
- Tribal chiefs
- Pharmacists
- Heads of social, educational (especially adult informal or popular education), and welfare agencies
- Religious leaders

Rather than communicating a collective message concerning national social and economic goals appropriate to national leaders, small media could be used to tell these opinion leaders the benefits of child-spacing (and in rural areas - of fertility services) for the social, economic and medical welfare of the people they represent. Any communications to these people would be contingent on the availability when needed of supplies and services in their area.

The government of Zaire could utilize small, inexpensive technology in a special way to reach local leaders with family life service information. Local mayors or pharmacists (in urban areas), for example, could be provided with their own cassette tape recorder or even with a cassette 8mm projector. Battery-operated projectors complete with screens are available in the U.S. for barely over \$6.00 and would be even less expensive in bulk. In many places in Zaire, the local leader would be the first to own such a technology and the media in itself would have great prestige value. The government could then disseminate cassette tapes or film cassettes (short film loops) on any number of subjects. Such a novelty provided to pharmacists or other gatekeepers in cities would be a boon to business as well as encouraging the distribution of contraceptives.

## FAMILY PLANNING: INDONESIA

### Background:

National policy: President Suharto has publicly endorsed family planning and has declared it as a national effort with a new national-level organization to administer it - the National Coordinating Body - with an executive appointed by him. Family planning in fact, however, still has a relatively low priority in Indonesia, both in the government and among the people. For example, the government continues to pay extra money and rice for wives and children of all its employees - a large percentage of all employees in the nation. Also, the penal code forbidding sale of contraceptives has not been repealed. The Indonesian people love children and children have economic value, especially in agrarian families.

The family planning program: The family planning organization in Indonesia seems to be characterized by excellent coordination and plans on paper but with not enough time to have implemented them yet; by much money (from international organizations) but confusion as to how best to spend it; by many clinics but dwindling clients, and by plans for training many field workers but a lack of a management approach for training them.

A national effort with adequate financial resources for family planning has been underway for only two years, since 1969. The organization on the national level is still in a stage of transition and reorganization. The National Coordinating Body is going to be the key to the system seeing that plans and activities are carried through, including research and evaluation. It will attempt to coordinate the separate family efforts - the Indonesian Planned Parenthood Association, the National Family Planning Institute (LKBN), the Ministry of Health, and the Jakarta Family Planning Project.

Indonesia started out with a network of specialized family planning clinics and a rather direct communications approach, aiming mostly at Java where the most severe crowding is and where a national policy of "transmigration" to outer islands has been unsuccessful.

The direct clinic approach, backed up by very little outreach or follow-up communication, has not been successful. A 50% dropout rate and a swift negative rumor system have been major problems. Field workers are rewarded only for first acceptors.

Some radio has been used and a training film has been produced, but a great deal more could be done to meet their current problems in Indonesia with the communications media now available.

Program Strategies:

1) Use of Media in Outreach Programs

Since Indonesia's problem has been in getting people to come to clinics, the clinics, or at least the workers, should go to them - initially as well as on a follow-up basis. Mobile clinics with localized small media such as film loops, slides, tapes and radio broadcasts could travel from village to village or from island to island. Emphasis would be on child-spacing and on the maternal and child health benefits of family planning, rather than the more direct approach used so far in Indonesia. Fertility services would be prominently advertised as well. The idea of child-spacing is an excellent intermediate step to eventual decreasing of family size. For further discussion of the benefits of a "child-spacing" approach, see family planning strategies for Zaire. The use and implications of media in mobile clinics is discussed in detail in the Colombian family planning section.

Mobile clinics could travel from island to island (returning regularly) via plane (when feasible) or by boat, carrying a variety of health services. The Navy or perhaps the petroleum industry could provide boats that are not in constant use. (This would be a key policy decision point).

Another emphasis on the media in outreach programs would be addressed to postpartum mothers. The postpartum approach has been tried in only five hospitals in Indonesia; it has been so successful, relative to other approaches, around the world, that outreach workers should make a special effort to reach these mothers who do not deliver in hospitals. Radio can be used to refer new mothers as well as others who may be interested in finding out more about child-spacing to the traveling clinics - announcing when and where they will be. At the same time, however, other health services being offered by the clinics must be announced, to allow for relative privacy for clients.

2) Use of Media as a Tool in Utilizing Existing Social Structures as Leverage for Family Planning Program Implementation

Certain key gatekeepers in Indonesian society have been bypassed in the introduction and initial communication of family planning programs in Indonesia. The media could be utilized to explain to these key social leaders (who might include dukuns, village leaders and others, such as pharmacists) about what child-spacing is and what the benefits are to the people they represent or counsel. This strategy - of presenting these leaders with a small technology - such as a tape recorder or a battery-operated cassette film projector or even a slide viewer to keep along with the child-spacing materials - is described in the Zaire family planning strategy section.

One caveat applies to this strategy, in view of rumors and popular opinion about the connotations of family planning in Indonesia that have built up in the few years it has existed: Everett Rogers reports that direct translation of Western terms into Indonesian has caused definite problems. The word "family" in Indonesian means "kinship" and the word "planning" is not meaningful except for referring to planning on a national level. The meaningless phrase, therefore, leaves a vacuum to be filled by common usage - which is negative. To practice family planning in Indonesia means to "kill your seed". Obviously, a new emphasis on child-spacing will depend on the development and pre-testing of new culturally positive language for all family planning communications efforts in Indonesia.

### 3) Media to Train Field Workers and Managers

Limited access media (films, tape cassettes with visuals, slides, film strips, etc.) could be used to train managers in how in turn to train field workers, as well as to train field workers themselves. This seems to be a particular gap now in Indonesia, especially shifting field workers from exclusive emphasis on initial adopters to postpartum, follow-up and dropout problems - as well as how to cope with rumors as effectively as possible. Helping workers be flexible and adapt to audience characteristics could be achieved through a audio or AV case-study method. (See a more detailed description of using broadcast and non-broadcast media for training purposes in Colombian family planning strategies). In Indonesia, more emphasis on training local acceptors and providing them with small media to show neighbors who are interested might be more successful than the exclusive training of medical and paramedical personnel to date. Use of a new technology, such as a tape recorder or battery-operated 8mm film projector would not only aid indigenous workers, but might enhance their prestige or be at least an attraction in itself.

### 4) Use of Media as a Crisis Intervention Mechanism:

Since negative rumors seem to be a key problem area in Indonesian family planning programs, quick-response media might be used to intervene. Rumor-specific film loops, or even cassette tape recordings giving answers to fears, by respected national figures or popular figures as well as by peers, may be prepared to rush to a crisis area. Also, single-concept film loops, etc. or tapes can be developed for quickly training field workers how to respond to rumors.

### 5) Local Contests for Media Origination:

To allow for an indigenous development and use of technology in Indonesian family planning programs, field workers can be encouraged (with cash prizes or incentives) to develop their own original ideas,

scripts or materials for any of a variety of media - after they have been trained in the basics of how to make materials or through the use of traditional materials. These contests could be applied to specific problems - such as developing a more culturally-positive approach to introducing the idea of family planning or developing effective responses or deterrents to negative rumors, etc.

Not only would workers be more involved and active, but they would of necessity learn to know their audiences as well as the potentials of the media better. Contests such as these may keep Indonesia from adopting only Western ideas of how media can be used in their family planning program.

#### 6) Use of the Broadcast Media

a) A less direct approach to family planning on the mass media might be more effective than the "hard-sell" approach. A telenovella on radio might be particularly appropriate in Indonesia, where people are romanticists and love to fantasize and fill in their own details with their imagination. Such a telenovella might demonstrate indirectly the benefits of child-spacing and related family life skills, while entertaining at the same time. (The strategy of the telenovella is discussed in some detail in the General Family Planning Strategies section of Volume III).

b) Another uniquely Indonesian approach to the media might be to take advantage of the Indonesian love of "musjawarah" - the search for consensus through reconciling and synthesis of opposing views. On local radio stations, local leaders as well as ordinary citizens could present opinions about child-spacing and other facets of family life planning. They might even discuss a segment of a telenovella broadcast before them - discussing whether or not and how it applied to their local situation and people they knew.

c) Although use of the traditional media, such as the wayang for family planning is still controversial, and more research would have to be done, there may still be a way of integrating a culturally-positive interpretation of child-spacing into it in rural areas or into a film (saga-type) or television saga for recent in-migrants in urban areas who love the shadow plays.

d) Whatever media is programmed for radio, an effort should be made to enlist the support of the many local private radio broadcasters and to provide them with easily adaptable and attractive material or pre-recorded local-interest (e.g., a "musjawarah" discussion) story. Telenovellas or short dialogues could be modular, so that background, names, family resources and terminology would be consistent with local area. These broadcasts should be bi-lingual or available in local dialect for those programs which broadcast in other than Indonesian.

Local programmers and broadcasters could be sent or presented with the small media described above for local leaders, to explain family planning and the application it has to local problems, etc.

- 7) Finally, family planning could be included in broadcasts and programs having higher national and personal priority, such as education and nutrition.

For strategies on the integration of family planning into other adult education programs, see the General Family Planning Strategies section of this volume and also see the Indonesian Strategies section of Volume IV.

11.11.11

NUTRITION EDUCATION

## INTRODUCTION

### Overview:

Food habits are not abstractions. They are part and parcel of the daily rhythm of being awake and asleep; of being alone and in a group; of earning a living and playing; of being a member of a town, a family, a social class, a religious group, an ethnic group; of living in a hot or cold climate; of living in a rural area or a city, in a district with good food supply or in an area of poor and/or irregular food supply. In some manner all of these factors affect food habits at any given time; they determine the food habits of a group every day anew.

Food habits are the result of a multitude of forces. They result from the vectors affecting an individual and his life space, in the group and its setting. The structure of the organism, of the group, of the setting has to be grasped, and the forces in the various part of the setting have to be analyzed if food behavior (whether "constant habits" or the potential for change) is to be understood. The real object of the study in nutrition education strategy development is the constellation of forces, its balance, and how it can be altered for constructive purposes.

### What is Nutrition Education:

Simply stated, nutrition education teaches the selection and utilization of a better balance of available foods. It involves a full educational and motivational process consisting of:

- dissatisfaction with current status
- awareness that alternatives exist
- motivation to adapt alternatives
- information about the specifics of alternatives.

Before its purposes may be accomplished, the elements in the behavior setting must be able to accommodate the change, that is, the alternatives must be available.

The implications of nutrition education however, are even more complex. In many regions of the world it may mean overcoming culturally and socially determined taboos and practices. It may also encounter problems which are brought about through a third force: the desire for status. At the most basic level, it involves teaching people to cope with and exert an amount of control over their environment rather than being controlled by external forces.

#### Why Nutrition Education?

The real need for nutrition education is indicated in the growing awareness of the relation of diet to physical and mental development. A recent report from a meeting on nutrition in Vienna suggests that each year 30 million children are handicapped both mentally and physically by protein deficiencies alone among nutritional diseases.

#### Nutrition Education and Media

The media have a special value in nutrition education in changing the peculiarly persistent habits tied to cultural and individual food preferences. Broadcast materials can form a social pressure to change ways, and a variety of media can be shaped into an effective instrument for expediting change. Continual reinforcement can be helped by daily or nearly daily programs. Furthermore, the very variety of media is valuable in avoiding the boredom of over-

exposure. Television, radio, slides, films and videotapes are particularly appropriate for demonstration with illiterates.

Despite the advantages and assistance the media bring to nutrition education programs, they cannot be used alone to produce attitude or behavior change. Effective nutrition education requires combining the media with personal contact. A mother needs live demonstration and assistance in acquiring new skills; she needs to be active in the learning practice. She may also need an appropriate behavior/learning setting which the media may not be capable of providing.

Perhaps the greatest role the media can play in nutrition education programs is in the training and educating of the personnel who work in and conduct these programs. The broadcast media and the small communications technologies can all be instrumental in extending and multiplying the knowledge of experts in nutrition and nutrition education for training needed professional and sub-professional workers.

While the media alone cannot produce the needed changes in attitude and behavior toward food, its role is important.

In coordination with personal approaches and through its role in training nutrition educators it can facilitate and expedite the changes necessary for improved nutritional status.

## II. GENERAL STRATEGIES

### A. PROGRAM STRATEGIES

Nutritional status is a result of, and depends on, many variables. Changes in nutritional status involve a process of: dissatisfaction with current status; awareness that alternatives exist; motivation to adapt alternatives; information about the specifics of alternatives; availability of alternatives. That is, a full educational and motivation process is needed before food habits change, and elements in the behavior setting must be able to accommodate the change.

Nutrition education must involve the considerations of and coordination with other sectors, most notably agricultural and health. In this sense, all nutrition education programs contain a germ of integration. However, for the purposes of this section, the term "integrated program" will refer to those which present nutrition education in close association with other related areas, while the term "specialized nutrition education program" will indicate those whose entire orientation is devoted to nutrition. Strategies designed to improve nutritional status could follow either of these approaches, or could combine them, as and where the need is indicated.

In nations where large scale activities in nutrition education are necessarily limited by available resources - financial, human and natural, - or are superceded by other national priorities, the media can be used to expand the effectiveness of those programs which do exist and lay a base for further and enlarged utilization of the media in nutrition education programs.

1. The Establishment of a Nutrition Education Network

Many TDN's are not able to undertake in-depth nutrition education programs; however, there are often programs which are being operated by private agencies, international agencies or relief organizations in addition to the few which may be operating under government sponsorship. The establishment of a nutrition education network could encourage the coordination of these programs despite geographical and possible ideological distances, establishing patterns of communications (information exchange, mutual assistance) and thereby increasing their overall effectiveness and benefit to the TDN.

In the more specific sense of communications, the media, particularly radio (either two-way, or, less effectively, one-way) can be used for maintaining contact between programs and field workers; between programs operating in the field and the TDN government agencies or between separate programs. Radio might be used for exchanging information, for mutual assistance and problem-solving efforts and for information gathering, feedback and evaluation purposes. Such utilization of radio might also be enhanced by smaller AV technologies (e.g., cassette tape recorders, single concept film loops, 8mm cameras, etc.) where their use and distribution is feasible.

The simple function of information exchange could help eliminate repeated errors or contradictory efforts; furthermore, the collation and storage of this information could also be a large step towards the necessary preliminary need assessment and data analysis which must precede any large-scale or in-depth programming.

The media might also be employed beneficially as a promptor or check on nutrition education activities. One way in which this might occur would be to inform workers, particularly those in more remote areas, of current and projected activities which could affect their regions and directly or indirectly their programs (e.g., extension of transportation routes, development of a new industry). In this way, nutrition educators could start early to prepare their audiences for the adjustment to a changing (and perhaps perplexing) environment.

a. The establishment of a coordinating agency.

While the above has considered the media in the role of "coordinator", some thought must be given to the actual coordinating agent or agency behind the media. Depending on available resources and other political and developmental considerations, this agency might be established to intervene quickly or as a basis for a future and more permanent institution (or component thereof).

Placement of the agency as well as the nature of the agency should be considered. It might be established initially under (1) an existing, discrete agency; (2) a group of consultants or a task force from IO's (with assistance from TDN personnel); (3) a preliminary "pilot project" group; (4) a communications institute; or (5) a consortium of any of the above. Any agency which might be selected should also have recourse to outside information, i.e., it should have feed-in from other levels of the TDN private and public sector (and possibly from sources outside of the country).

An alternative to the idea of starting with central point of coordination, might be to "buildup to" it by starting with smaller entities to coordinate programming on a regional basis before building to complete centralization. This structure might also be considered as a way of relieving the massive pressures which could overburden a newly organized and functioning central coordinating agency, while testing alternative procedures.

Even though large-scale nutrition education activities may be in the future, or may only be offered in coordination with other services, this network could lay a valuable foundation - not only for possible future nutrition education programs but for any program which could benefit by using the media in this manner. Its utilization might also be enlarged for training and re-cycling field workers and as an evaluation/need assessment tool.

b. Effects and implications

The establishment of a nutrition education network builds on available expertise in nutrition education as well as in communications. While this expertise may initially depend on non-TDN personnel for the most part, the program described above offers the chance of bringing their expertise into the structure of the national effort. The training potential is great. There would be an opportunity for developing TDN expertise with a background in transferring, adapting and innovating techniques (communications, nutrition education, etc.) geared to TDN needs. Most importantly of all, this knowledge could be acquired in situ.

The establishment of communications channels - between programs, between the field and program, between headquarters and regional outposts, etc. - would cut down the isolation which might discourage workers and programs from remaining, or even going to, more remote areas. Its existence might also encourage other programs to consider less urbanized areas as bases of operation. This could have beneficial effects on both the TDN and the programs, not only in that it would help bring needed services to these areas but also by allowing the programs a more "workable" and appropriate situation in which to experiment and adapt. One further advantage would be the accumulation of solid base-line data (cultural, sociological, etc.) on which future development programs (or growth centers) might be based.

As a word of caution, it should be mentioned that the effectiveness of a nutrition education network could be defeated by programs that are too ideologically different. A program sponsored by one IO or relief agency may not want to cooperate with another, or may be disdainful of less standard techniques or methods which are not of their own innovation. This may indicate a need at the upper TDN policy and program levels to carefully select or approve the agencies which will work in their country.

## 2. Integrated Nutrition Education Programs

Nutrition education programs may be very effectively integrated into other services or programs. This may be done on a unilateral basis, e.g., training agricultural extension workers in nutrition

education or incorporating nutrition education into maternal/child health programs, or it may be done on a broadscale basis such as the program outlined below. This program (based on the Colombian system of "multipliers") offers an example of nutrition education through integrated programming. As a whole it presents nutrition as a part of a larger orientation and taken in part, it represents individual ways in which to implement this strategy. It also represents a fine example of wide-range, multi-disciplinary and long-term planning for nutrition and family life education in the community in line with national needs, priorities and resources.

As a note of caution, it should be stressed that the inclusion of "multipliers" in this section is not a suggestion that any or all countries should or could duplicate this system. It is used here as a demonstration of a general strategy and how it can be developed and used in the field of nutrition education.

a. Program description -- "Multipliers"

Awareness of the socio-cultural factors involved in malnutrition and a scarcity of specialists in the field of nutrition prompted the Colombian Nutrition Institute to establish a national system of "multipliers". Very briefly, it might be defined as the utilization of people as nutrition education resources personnel who have the greatest amount of contact with the community (in all fields, at all levels and capacities). These people act as "multipliers" of the efforts and knowledge of the scarce nutrition specialists. In this way the multipliers (e.g., doctors, dentists, nurses, veterinarians, teachers, nurses' aides, agricultural extensionists, home demonstrators, community action

promoters, food dealers, sanitation inspectors, various volunteer groups, etc.) actively contribute to the educational efforts to improve the nutritional status of the communities they serve. They serve as the basis of a national program in the prevention and treatment of malnutrition.

Before such an extensive program can be undertaken, preparation and training must be provided. The Colombian National Institute of Nutrition (now the Direction de Nutrition of the Instituto de Bienestar Familiar) has been developing, directly or in collaboration with other ministries, programs for educating and training the multipliers.

This plan includes:

1. Formal education in nutrition at the "professional level" in universities and special schools in the fields of medicine, dentistry, nursing, physical science, agronomy, veterinary medicine, etc.

2. In-service training programs, seminars and projects, etc. at the "professional level" for doctors, nurses, agronomists, veterinarians, dentists and health educators.

3. Formal education in nutrition at the "sub-professional level", e.g., in schools of education (for primary and secondary school teachers), nurses aides programs, home economics, vocational agriculture, paramedical programs, and SENA, (the national vocational education program).

4. In-service training at the "sub-professional" level for academic supervisors, teachers, sanitation, sanitation inspectors, nurses aides, community action promoters, nutrition aides, agricultural exten-

sion workers, home economists, members of independent national and international organizations (e.g., the Peace Corps), etc. There are also programs for government employees who are connected with nutrition programs.

In the period between January 1963 and January 1970, almost 30,000 Colombian multipliers at professional and sub-professional levels were trained in various aspects of food and nutrition. Educational activities in nutrition and hygiene have been carried out by these multipliers and have reached over 300,000 people in groups such as fathers, farmers, primary and secondary schools students, mothers and pregnant women, social and service clubs, community leaders, soldiers, policemen, food dealers, health promoters, midwives, religious groups and patients in hospitals and health services. The most intensive efforts have been directed at pregnant and nursing women and at students.

b. Effects and implications

There are many considerations involved in this sort of system; some will differ with specific countries and their needs. A system of multipliers need not develop as outlined above. The following points of consideration summarize critical factors which comprise a more broadly applicable multiplier strategy.

Time vs. resources: Often comprehensive programs in nutrition improvement cannot be undertaken in technologically developing countries, even when national policy has been formulated and approved. There is insufficient trained manpower to undertake extensive programs. The stalemate resulting from the gap between the time of policy and decision-

making, and the time of actual implementation of nutrition education policies can be enormously costly to a country which is faced with widespread malnutrition - costly economically, politically and in terms of the quality of human life. While multiplier programs require some development time, they take advantage of existing institutions to provide more immediate help while additional and more specialized nutrition education resources are being developed.

Relationships to other areas of development: Each nation must determine the course of technological development it wishes to pursue, in accordance with its perception of the relative value of its needs. This will be influenced by many factors, both within and outside of the nation. It may happen that nutrition education, although a pressing problem will have to be a future rather than immediate priority. Change in nutritional status often depends on changes in other spheres (e.g., transportation, communications, agrarian reform, industrialization, education). Delaying nutrition education until one or more of these systems has improved to the point of being able to support a better level of nourishment may be necessary and may absorb most available resources. Meanwhile, progressive training of nutrition multipliers, as development proceeds in other systems, could be an alternative to the total delay of nutrition programs. It could also have an additionally beneficial effect. The development of one or more of the other sectors, such as transportation or communications, can have an initially disruptive effect on diet. Past experiences have shown that improved transportation facilities also improve food

distribution and new marketing opportunities for crops grown in formerly isolated rural sections of a nation. This in turn, encourages greater amounts of "cash cropping" rather than subsistence farming, and an accompanying deterioration in farm family diet. (Farmers are now selling food they might have eaten, converting lands set aside for food crops for more profitable cash crops, and/or not knowing how to budget their money.) This tendency might be countered if it were considered and prepared for by agricultural agents acting as nutrition multipliers.

Focus: While we have discussed the "multiplier" technique with reference to nutrition, it is actually an integrated strategy. Various helping agents present nutrition in terms of their own field of expertise. The ultimate target, through this kind of exposure, can come to view nutrition as part of a larger whole. For example, as people come into contact with agricultural extension workers and nurses who are both "multipliers", either conscious or sub-conscious awareness of the cause and effect relationship between farming, nutrition planning and health may be established.

Essentially the multiplier strategy provides greater chance of measurable "spread of effect". Although the actual end-result may be dilute, the fact that the same messages are coming from many points may help counteract the possible adverse associations a single gatekeeper or channel of communication might have. While this program strategy is not easily or quickly implemented; nor the results immediately visible, it does provide response to the nutritional

problem sooner than the dependence on the development of a separate nutritional program.

c. Communications Technology and the Multiplier Strategy

The widespread use of para-professionals and lay persons, as well as the geographical spread of such a program of multipliers invites the use of communications technology. Radio and television, where available, are natural methods for 1) calling the attention to the program and to the worker; 2) reinforcing the significance of the program for the general population; 3) training workers and 4) informing and motivating both worker and consumer.

A number of other communications or audio-visual methodologies can be used in the multiplier program. The widespread dissemination of tape recorders and recordings becomes an effective method in many situations for providing material to workers that can be used over and over again, either as material to be used with the final consumer, or as training material, or both. It also provides a method for the not-completely-literate worker, or the one who is too busy to write extensively, etc., to communicate back to headquarters via the use of the tape recorder. It also permits a sampling of interviews and other sessions that can be obtained from a field.

The use of the other audio-visual methods, including slides and film loops and movies (particularly the new 8mm cassette, which is both inexpensive and easy to handle) permit the person who is not fully trained in the area of nutrition (or, indeed, in any other specialty), to bring fairly sophisticated material to the consumer.

This may be in the form of anything from instruction on particular nutritional matters to a quasi-entertainment show, such as a demonstration of cooking technique or a "galloping gourmet of nutrition" which can be brought via 8mm cassette to the hinterland and may be used in doctors offices, markets or pharmacies.

Even less sophisticated technologies, such as posters, charts, and flipcharts as well as booklets with verbal or non-verbal material can be used as a part of the multiplier technique to bring material that the relatively untrained (in this field) worker would not ordinarily have available.

In the selection of communications techniques for use in such a program (this is true for nutrition, and for the other modalities, and in general) the needs of the situation must be considered carefully. Where the worker is engaged in extensive activity that is removed from monitoring or supervision by a more capable professional, it is important that he have materials - whether written or on a tape cassette - that he can review periodically to assure that there is not too much drift in the methods that he uses. On the other hand, where workers are operating in very remote locations, the radio becomes an exceedingly useful communications technology, especially when cassettes cannot be mailed readily, delivered both safely and rapidly, and used effectively in the remote area.

Television has many advantages, but also suffers from the multiple disadvantages of expense, short range transmission, absence of reliable electric power, difficulty of maintaining equipment, and complex programming problems.

Where it is possible, combinations of radio or television and recording techniques have tremendous advantages. In a national situation of remote villages, but with a capable technology present, the tape recording of radio messages can provide a useful input that allows the field worker to continue to use the materials after the period of broadcast. In the national situations in which television broadcast can be undertaken at least to the large cities and towns, videotape recording becomes an effective method of maintaining the material locally until it can be re-broadcast over local communications facilities, played for a local audience over an individual monitor, etc. It is also possible that materials can be modified locally when there is the capacity for doing so, and thus programming methods are made cheaper with the addition of only those modifications sufficing to individualize or regionalize the program for a provincial city or region.

### 3. Specialized Nutrition Education Programs

The strategy of specialized programming does not exclude the use of integrated programming, nor does integrated programming preclude the use of specialized programming. They may be mutually beneficial and one may even be the means by where the other is achieved. Integrated

programs may be used to create a climate of awareness for eventual specialized nutrition programs; they may be used to start work on nutritional improvement while nutritional infrastructure and services are being developed for the particular rural or urban area.

Specialized nutrition education programs may be a means toward eventual integrated ones. For example, mothercraft centers have in some instances provided a natural path to discussions of family planning. Eventually these two might join together under Maternal and Child Health or family welfare services. Specialized nutrition education programs might also be used as special interventions to satisfy immediate or priority needs within a framework of integrated programs. On occasions the various international organizations (WHO, UNICEF, FAO, etc.) and relief organizations (CARE, CRS, etc.) might be able to initiate nutrition education programs within a nation while the resources needed for a national program are developed.

The mothercraft center offers an example of a specialized nutrition program and the factors which must be considered. This program seems to be emerging as a generally, if not universally, applicable, format for nutrition education in rural settings. It has been successful in a Latin American context (Venezuela, Brazil, Columbia, Costa Rica, Guatemala and Haiti) and in the Phillipines. It has spread to Africa and is being considered for Southeast Asia.

a. Program Description: The Mothercraft Center (or Nutritional Rehabilitation Center)

The basic concept of the mothercraft center is simple and direct:

the combination of child day clinic and maternal education with the serving of a well-balanced diet of local foods prepared to meet the needs of the children at a minimal cost. The mother is educated through her active participation in the nutritional recuperation of her child which develops her realization of the potential for growth and development of all her children. In-process education and group discussion-decision-implementation are carried out in a comfortably casual behavior setting where the uneducated mother feels at ease.

This outstanding physical requirement is the "universal local availability" of food (that is, cheaply available foods) which will support an adequate diet. The ratio of these foods in the diet is determined before instruction begins and carefully planned to be within local budgets.

One of the important elements of the mothercraft center is the behaviour setting. Keeping in mind that rural women have had generally little to no exposure to formal education and its structured learning situation, it may be important to duplicate the kind of setting in which they are accustomed to learning - a casual and relatively unstructured one involving much interaction with other women.

The skills which are taught are immediately useful and directed to a clear and felt need. They are taught with cooking implements which are familiar to the women and in a setting very similar to their own cooking facilities.

The instruction is carried out by a "monitor". Depending on the needs of the situation and the availability of trained personnel for this responsibility, monitors have been young city girls, young

girls from within or near the locality being served, local grandmothers who no longer have the responsibility of their own families and "surplus" school teachers. Monitors are selected and evaluated for their ability to command respect, provide a good example and interact well with the mothers. This relationship is crucial to the program.

The groups with which the monitor works are relatively small, the exact number of participants depending on the number needing help, the priority of the problem and the attitudes of the mothers. Generally, the group on any given day is only a percentage of the total enrollment of the session. (Mothers are generally on duty once a week, in rotation.) The small group size allows the individual attention which the learner may need and also offers the monitor a degree of control over group interaction.

A large part of the motivation of the target audience depends on their perception of the center. In some areas, the reputation of the center has preceded its establishment and the target audience needs little encouragement. A perhaps apocryphal story from one country describes the "hijacking" of a mothercraft center enroute to a chosen location. When people are unfamiliar with the program, initial motivation has been created by working with locally important women - either as participants in the first session or as promoters. The children with the most advanced cases of uncomplicated

malnutrition are chosen, not only for humane reasons but also because their improvement will be the most dramatic and this serves to further enhance the reputation of the center.

As an adjunct to the mothercraft center, and depending on need and availability, agricultural extension workers have undertaken programs with the fathers of the children in the center - demonstrating ways in which they may aid in the nutritional rehabilitation of their children. This has been found especially important in cultures where male attitudes may hinder female behavior and where the health of the family is a status index. This approach serves to reaffirm the male position and importance within the family rather than casting blame, either explicitly or implicitly.

The example of the mothercraft center demonstrates a program which is geared to general needs in technologically developing countries; it also reveals the flexibility with which it can be adapted to the specific needs that it may encounter. These may be the two greatest ingredients in its success and also may be among the most important considerations in any specialized nutrition education program.

b. Effects and Implications: As is demonstrated by the above example, specialized programs generally allow greater intensity and in-depth handling of the problem area. Undertaking this type of program, particularly on a widescale basis makes many demands and imposes many restrictions which will have to be considered against long-term and short-term benefits.

In widescale nutritional programs there is a need for specialized infrastructure in the fields of nutrition and health

(nutrition efforts generally fall under the jurisdiction of health). There is also the need for facilities and services. Both of these tend to be among the lesser available resources in technologically developing countries, particularly in rural areas.

In conjunction with these is the need for a systems for feedback and evaluation. These must be carefully planned for in any program to allow it flexibility in changing with needs and over time. Such systems may be very costly to initiate or very demanding on existing manpower and communications channels.

However, these drawbacks may be weighed against the achievements of which a specialized program is capable. For example, a specialized approach is generally better for equipping people with the ability and tools with which to cope with nutritional problems, and it thus can engender longterm changes. Also, at early stages of development and/or in coordination with various external agencies, it may be the best or only alternative. It also provides singularly dedicated professional and nonprofessional workers as well as sources of support.

c. The Role of Communications in the Mothercraft Center

While the media cannot replace the in-depth attention and education processes of the mothercraft center, or other specialized nutrition education programs, it can certainly bring an added dimension. Television or radio programs or less expensive AV materials may be used in mothercraft centers to provide supplemental materials which might not otherwise be available. Additionally, the use of TV may provide further incentive for mothers to attend.

The kind of programs which might be used are varied. They might be telenovellas (which employ nutritional messages as background material) ostensibly used as entertainment; they might also be used to bring other messages and skills to the mothers. For example, they might show mothers games they might play with their children, or which they might encourage their children to play, which would increase or develop certain basic and cognitive skills. If older children are involved with the center's program, they might be encouraged to watch with their mothers. TV or radio shows might also be used to develop other skills: they might include home management tips, budgeting, minor business skills, dressmaking, even beauty or "etiquette" lessons.

Programs might also be used for reinforcement of what the mothercraft center program has already covered in-depth. It could be built around the same theme and slightly varied each day so as to drive home the desired messages without boring the mothers unduly. It might also contain "next phase" materials. These would be used late in the program after the mothers have seen the response of their children and are beginning to feel confident in their new skills and are perhaps psychologically ready to handle a "challenge" to these new skills. (This challenge should be designed so that the women can demonstrate their skills.)

In developing programs for use in mothercraft centers, attention should be given to the behavior setting in which it will be employed and the fact that women who have had little experience with "watching television" may initially be more fascinated with the medium than the

message. The success of the informal behavior setting would indicate that more didactic presentations over the media would not be successful. Programmers might also have to plan "one-theme" shows which reiterate the message throughout the show, in order to allow the women in the audience to talk freely with each other, discuss details, etc., and not miss something vital in the presentation which could destroy or distort the intended message.

#### 4. Key Decision Points

Definitive conclusions regarding relative merits of program strategies in terms of specific countries cannot be drawn without reference to specific situations in time and place. It should be left to those who will be actively concerned in the policy-making and implementation in the concerned nations, not only because it is they who must determine their destiny but also because they have a better understanding of the variables which may effect development in the field of nutrition and other areas of national development which will effect nutritional development.

In considering any type of program implementation, special attention should be directed to the following specifics:

- 1) Assessment of need, and objectives
- 2) Areas of policy and decision making within and outside of the system to be used, e.g. where will authority be placed?
- 3) Resources that are available now, those which may become available in the future - what are their implications for the programming to be undertaken; how might they be utilized or allowed for?
- 4) Financing

- 5) Selection, training or educating and supporting personnel who will be involved in the system
- 6) Program development
  - integrated programs: which aspects of nutrition are appropriate for which fields and which professional levels and capacities; how can these aspects be introduced to the channels so as to be complementary and supportive at the target audience level, where might they be introduced to guarantee the desired result?
  - specialized: determination of the nature and priority of the needs; how to reach these needs (in terms of settings, skills, instructors, group size, motivational processes, etc.)
  - what are the implications if one is implemented to the exclusion of the other; in coordination with the other, etc.?
- 7) realistic assessment of goals and accomplishments - within the system and in relation to other programs
- 8) establishment of guidelines for implementation and evaluation purposes and for in-progress adaptation if needed
- 9) position of program in terms of national priorities - how does it fit in now, what future plans might enhance or detract from this/these programs?

## B. FURTHER MEDIA STRATEGIES

Communications media may be a powerful tool in the development and technological expansion of a nation; likewise it may be of great use and power in the development and expansion of activities designed to improve the nutritional status of a country. However, as a tool, the media require adaptation to each application to realize their greatest capacities, and their characteristics impose limitations on the kinds of activities in which they can engage.

In the service of nutrition education, the potential of television and radio for reaching large audiences can be of extreme importance. However, there are limitations imposed by this very ability. One of the more important ones involves the message which must be carefully prepared for general applicability across the various subcultural groups who may comprise the audience. This may diminish the effect considerably. Another limitation is that broadcast alone, without the supplements of the field worker, groups discussion, etc., while effective at providing information, is not particularly useful for changing behavior in otherwise unprepared populations. In changing food preparation habits, there appears to be no substitute for slow, daily, repeated and personal encouragement combined with locally acceptable experimentation. Broadcast, then, may be most useful to create generalized awareness of good nutritional habits and provide indirect reinforcement for changing food patterns. It can be further used to provide ongoing inservice training to field workers in special broadcasts, and to provide core elements of center nutritional education programs. These uses of media have been discussed in detail under the section of basic education.

Geographic considerations: While radio is generally widespread in most nations, television is primarily centered around a few large cities. If broadcasting only reaches within a 20 mile radius or so, enough homogeneity may exist to make effective nutrition education programming feasible.

Time of Program: A way to work with a range of audience groups is by timing programs to coincide with times when one group is more likely to be listening/watching than another. (e.g. A program which comes on at 5:00 AM is more likely to reach farmers than city office workers.) Another important aspect of radio and television is that they can be used with illiterates or near-illiterates. This may open up possibilities in areas where malnutrition cannot wait for education, and where field workers are few or not available.

Coordinating Messages with Nutrition Education Activities: In order to derive the greatest efficiency of nutrition education programs, care should be taken to coordinate the messages which are broadcast with the activities of nutrition education workers. The first step toward coordinating media messages with field activities should be the assessment of (1) the needs, capabilities and goals of the workers and (2) the field conditions with which the workers must deal. (3) The characteristics of the current target audience. For example, if workers are trying to teach target audiences how to better utilize available resources, these resources should be known. Audience characteristics are another example of "field" conditions. This assessment must go on during as well as before coordinated media programming is instituted. Changes in programming will have to be made as changes occur in the field.

As the needs are determined, the possible roles of the media must be weighed. Where is its greatest value? Should it consider supplementary or complementary programming? Should it deal specifically with nutritional problems or discuss nutrition generally? Is nutrition the key or the preparation of attractive food?

1. Supplementary Programming:

Supplementary programming may be of great benefit to nutrition education programs, particularly if it can assume some of the duties which an overworked, understaffed nutrition education program cannot handle. Supplemental materials, in the form of core materials, can also be used to bring nutrition education into other settings.

In seeking to develop program strategies for training and educational purposes, careful attention should be given to the audience and its behavior setting. Because supplementary media broadcasts deal with the more specific goals of nutrition education activities, it will probably have to work with more limited audiences. When broadcasting to large, heterogeneous groups, too many audience characteristics may be unknown; too many variables may distort the message. These variables may range from different cultural perceptions of food and diet to different language or dialects. Also to be considered in broadcasting over a large area are problems associated with economic status. Some of the groups in the broadcast area may be eating at a bare-subsistence level; others may be economically capable of choosing among many foods.

Where possible it may be advisable to stage a behavior setting; at other appropriate behavior settings may already exist (e.g., classrooms). Attention should likewise be given to the composition of the audience and the presence and capability of a discussion leader.

Nutrition education teleclasses could be established in a variety of places, such as health clinics, nutrition rehabilitation centers, womens' (or family) clubs, pilot teleclubs, etc. In these settings, core materials may be presented to a group under the guidance and supervision of a "monitor" who can answer questions and prompt groups discussions. This would allow busy professionals to stay at their own tasks while instructing audiences in better nutritional practices and habits via the media.

Uses of core broadcast materials also allows the utilization of discussion leaders who are not necessarily nutrition experts; the burden of the presentation and message rests with the broadcast material. Their presence is vital however, as is their function. The presence of "monitors" with some knowledge of good nutritional habits and practices and with some ability in working with small groups will allow more in-depth handling of the message in the media presentation.

If teleclasses were conducted on a regular basis (e.g., every week or twice a month) more diversified materials could be gradually introduced. These could be reinforcement or followup of the original nutrition education program, or they could phase into other related areas.

Teleclasses, as well as more structured classroom situations may also be utilized for training purposes. Supplemental broadcasting may be very important in terms of the ability it may lend to the limited numbers of nutritional personnel and specialists to work in two capacities: with target audiences and in developing and supporting infrastructure. (for more discussion see following section on Training Strategies.)

Core materials might also be distributed to local or regional television or radio stations to be broadcast to coincide with locally or regionally intensive nutrition education programs. Video or audio tapes may be developed and distributed to regional stations where further adaptations and additions can be included to make the programs more specific to the needs of the audience or program. If local expertise is available, the entire programming might originate from the local station.

These programs may be used to reinforce and support the more intensive work being done by field workers; they may also be used as follow-up materials with varying degrees of modification as needed by the population. The inclusion of testimonials by members of the target audience or local leaders along with the broadcast materials could add further motivation.

## 2. Complementary Programming

Programs designed to complement nutrition education activities offer greater latitude. Because they are intended to complement nutrition education generally, they can work with techniques to (1) create awareness - the realization of alternatives to current nutritional status; (2) provide information - what services are available and where, if more information is desired, etc. and (3) increase motivation to seek services and to continue with nutrition education programs. Programs might even be developed around complementary skills or to build pride in newly learned skills. Complementary programming can be geared so as to dovetail with nutrition education activities without hindering or contradicting specific activities.

Complementary and supplementary programs might also be viewed as a continuum rather than alternatives. Complementary programming of the general awareness level might be used with newly starting nutrition education programs. As "field" activities increase, supplementary programming might be added to increase its effect. After the peak has been reached, complementary programming of another sort (e.g., along the lines of the 'galloping gourmet') might begin again.

Strategies for this level of programming might do well to consider special background techniques and programs which create concerns or establish need. Promoting and providing general information and stimulating values re: nutrition are methods which might create an improved understanding of nutrition and encourage a positive orientation towards more specific and detailed media or non-media programs.

Examples of this approach might include using time on soap operas, or other generally popular programs whose formats allow such, to show or portray a leading female character working in her kitchen, spending time on her food menu and budget, attending a well-baby or MCH clinic or where culturally permissible, breast feeding her baby. Or, shows similar to "Conversations with Dr. Bambosh" might be used. (See description in the section on family planning.) This program deals with audience specificity by allowing the audience to define itself and its needs.

Another approach might be to develop a "gourmet show" which teaches basic nutrition through an "haute cuisine" mode. To build its "reference group" value, some effort could be spent prior to broadcasting, establishing its reputation as the kind of show upper middle class women in

more developed countries watch; that gourmet cooking is a hobby of these women, etc. - clearly indicating that it is geared to the reference group of the woman who is actually the ultimate target. The "gourmet cook" might be the wife of an important political or social leader and the foods used might be national dishes or those based on relatively inexpensive and plentiful foods of high nutritious quality. This might be especially effective in countries where change is a fact; where convenient, faddish but generally lower quality, foods have started displacing superior dietary patterns. It can, however, be used to change older rigid but unsatisfactory nutritional patterns. While such programs require insight into national characteristics, they have general appeal within a given country.

Other programs may be geared to the needs of audiences facing new situations, such as the new urban arrival who is faced with different food procurement patterns as well as more distractions, demanding time and money and influencing food selection. (This may also apply to audiences in rural areas which are opening up.)

Such program strategies might include marketing tips similar to those sponsored by the U. S. Department of Agriculture. These tips could include where certain commodities are available; what foods are in season; what foods are good "buys" in terms of cost and nutritional value. Marketing skills such as selection and cost comparison of foods might also be included.

Other programs might be centered around budgeting skills. Teaching people what to buy may not be effective - or may be counterproductive - if they do not know how to manage their money. People who are

unfamiliar with a totally moneyed economy not only need to know how, but also that they must, reserve a portion of their income for food. An all too common response to the onset of "income", is that food is bought with whatever money is left after less important, but more statusful, items (including high-cost, low-nutritive value status foods).

While these program needs are not specifically nutrition education, they do fall into the area of skills necessary for the implementation of nutrition education goals. Just as they assist nutrition programs in the short term they also assist family planning and related programs over the longer term. As such it may be important to incorporate them with nutrition education via the media or through programs which combine media and non-media activities.

Another point which is not specifically nutrition education should be discussed. A rising area of concern to nutritionists in many TDN's is food advertising and its implications on nutrition education programs which may also occur via the media or may not. Many of the foods being advertised are high status and of relatively low nutritional quality. They are also very expensive, even more so in considering the nutritional benefit derived per the expenditure. Advertising has generally appealed to desires for status and seems to be having its most destructive effect in the urban lower-middle and lower classes and in some of the less remote rural areas of the TDN's. It may not be possible or even economically feasible to stop food advertising in the TDN's, but it might be more advantageous (or less destructive) to time food ads so as not to directly coincide with nutrition education programs on radio or TV.

### 3. Decision Points

Although use of communications media may bring many added benefits to nutrition education programs, certain warnings must also be issued. Because of its capabilities to reach large numbers, any adverse effects might result from improper handling would likewise be multiplied. Therefore before deciding to develop programming and certainly before implementing them, the implications which the medium itself has should be assessed. For example, credibility - who owns or directs the station? What other programs does it feature? What effects might these factors have on target audiences? If it is a commercial station, what dissonance might food advertising create with the nutrition messages which are presented? Also, there are certain indications that emotional approaches are better avoided. Not only does more lasting change seem to result from rational decisions to undertake new activities but a response that was brought about through timely emotional appeal and could not be satisfied by the system might lead to frustration and a future resistance to further efforts.

### C. TRAINING STRATEGIES

Training is a crucial variable in developing and implementing nutrition education programs and should be given careful consideration at the policy and decision levels; it is probably the most important single variable other than limitations imposed by the physical environment of the target audience. Its significance increases with distance from the capital or with the size of the target audience. The personnel in nutrition education programs establish the capabilities and capacities of the programs to deal with nutritional problems.

The communications technologies can serve a very important role in training TDN personnel at all levels for roles in nutrition education programs. Television and radio, along with the smaller technologies, offer the opportunity to extend talent and expertise in nutrition to both educational and training situations.

#### 1. Training at the Professional Level

One of the many needs in TDN nutrition education programs is for indigenous education and training services and facilities at the professional level. The problems associated with sending students out of the country for advanced training has already been dealt with in more detail elsewhere in this report, as have been alternative strategies for coping with and correcting these problems.

The desirability of indigenous programs is obvious. First-hand acquaintance with actual TDN conditions and cultural perceptions of food and nutrition are only two of the primary reasons why some part, if not all, of the educational process should take place in the TDN.

The establishment of completely or partially indigenous (professional) training programs in nutrition might be based on the few TDN experts and

other 10 experts in the country, in addition to materials made available through utilization of the communications technologies.

One way in which this might be implemented is through the use of closed circuit TV, video tapes, etc., which could be used to bring the few nutrition experts working in the TDN into many classrooms. These same experts may continue with their own tasks and/or conduct traveling seminars, spending a small amount of time at various educational facilities, conducting additional classes of conference in order to handle more in-depth needs. Visiting experts or returning Western-education TDN nutritionists might also be brought in as short-term in-residence faculty to conduct independent research or training projects with TDN students. Such projects might include working on problems which field operations have come against or gathering information from on-going projects. This would offer the advantage of working their expertise into actual TDN situations, possible under more critical scrutiny (TDN students and national experts) than they might encounter in classrooms more isolated from actual field conditions.

As these programs turn out qualified TDN professionals, certain roles may be re-claimed from foreign experts and new areas opened up (e.g., communications in nutrition education or the development of AV materials and other software appropriate for nutrition education).

## 2. Training at Sub-Professional Levels

Similar uses of broadcast and other AV technologies can be utilized in centers engaged in training para-professional and sub-professional workers in nutrition education programs. These technologies may also allow "satellite" training centers to develop in several areas which may decrease expense and increase contact with field conditions during training. Certain core materials could also be made available on tapes

to centers and clinics (1) to equip their own outreach workers with nutrition relevant materials for use in contact with members of the community, or (2) to use with their patients in the clinic. The smaller technologies can also be used to reinforce newly-acquired knowledge, bring new information, or simply keep in touch with nutrition educators in the field.

a. Training Health Center\* Workers

Health centers provide a particularly excellent opportunity for nutrition education when one considers the motivational force the curative services may lend to a patient's reception of preventive and promotive services. Medical personnel (from doctors and nurses to paramedical personnel) must be trained to realize and cope with their patient's perceptions of malnutrition and the conditioning agents which cause malnutrition. "Simple" procedures to prevent the recurrence of malnutrition may not be very simple for the mother who must contend with the disparaging and contemptuous attitudes of her husband, mother-in-law, etc. Yet the cure of the direct effects of malnutrition give her support and motivation for the implementation of this and other health related activity, e.g., vaccination, water purification, etc.

The treatment of a child for malnutrition should be viewed as an opportunity to provide the mother with the knowledge and skills with which she may participate in the rehabilitation of her child and the protection of her other children.

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\*Health Centers include: nutrition clinics, MCH facilities, "well-baby" clinics, hospitals, out-patient services, etc. - in short anywhere that might treat malnutrition.

Studies have indicated that the sub-professional and outreach employees of health centers often have the greatest contact with the population they serve. Equipping them to handle some aspects of nutrition education could (1) alleviate the burden of constant repetition from the professionals whose curative services are already in constant demand and (2) bring the program to the users through someone who is more nearly their peer and possibly more familiar with their problems.

Sub-professional workers may be trained to conduct nutrition education services in health clinics. Through the use of media training programs and, where possible, in coordination with the more professional members of the staff, they might be instructed in the basic rudiments (i.e., enough to handle simple questions about the material presented) of nutrition education and how to utilize the materials to be presented to the patients. Optimally a situation might be established whereby the burden of the message would be left initially to the professional and then to the media presentation: the motivation supplied by the curative service rendered and the continued response of the malnourished patient, and the repetition and reinforcement, as well as the general presentation, by the sub-professional workers.

#### b. Training Field Workers

There are far too many variables involved to make a blanket statement about the best type of worker to select; however, one principle does seem to be emerging: that field workers should be chosen for their ability to relate to people - that communicators are born and not trained. However, good ones can be released from their misconception and inhibitions and freed to do a good job.

"Relating to a target audience" is not determined by a set formula, however, some indicators of effectiveness have begun to emerge. The effective field worker may be a local opinion leader; he may come from the same or nearby locale; or he may have already proven his worth to the community in another capacity (he might be a priest, a teacher, etc.)

Training and utilizing these people in nutrition programs has become a key motivational strategy. General commitment to the welfare of the group is associated with leadership roles in a society. Through participation comes more specific commitment; with commitment come providing a model for the community. This process had helped in changing opinion - particularly when good nutritional practice was not an originally "felt" need.

In general, experience with para-professional field workers in many programs have demonstrated their value. They generally have held respected and authoritative positions within the community which has made them important gatekeepers and they have been an essential pivotal point in feedback and implementation. They also provide personal contact which has been cited as the single most effective means of motivation.

Wide disparity between urban and rural life styles tends to be a feature of the technologically developing country. The urban individual is usually more familiar with new methods. Also in terms of educational background alone, it may often seem more feasible to use urbanites in programs. However, this disparity has often contributed to resentment and mistrust on the part of the rural people, and scorn and arrogance on the part of the urban workers. Such conditions suggest the desirability of training local people for local programs.

Training local leaders (and other field workers) to participate in nutrition education programs has generally been a costly procedure - in terms of valuable "trainer" manhours in the field or bringing trainees out of their environment for training at an established facility. For such reasons (and others, such as poor contact after training) an important resource has either had to be by-passed or has not been as efficiently utilized as possible.

Broadcasting or taping core materials for later replay might be one way in which more field workers might be trained less expensively. Regional training facilities may be established; this would not only relieve burdens on a centralized system but would also act to extend the central system beyond its current range. Trainees would be closer geographically and possibly emotionally to the areas in which they will be working. Also, regional centers will be more aware of specific needs and problems which will be encountered in the area and can adapt their training processes to cover these.

The broadcast communications technologies are also useful after the initial training period. They can be used to reach the field worker while he is on the job for reinforcement purposes, retraining, or just keeping in touch with him. Coupled with smaller technologies or with two-way facilities, the field worker can keep in touch with his headquarters, send in valuable information and data or request help with specific problems his training may not have covered.

### 3. Decision Points

In undertaking any training program, there are certain elements which must be considered. These may enter at top policy levels or at lower program levels.

What Should be Taught to a Nutrition Worker?

While much has been said in relation to the utilization of core materials, very little has been said as to what these core materials should be. The first indicator of subject matter to be taught should be the professional/educational level of the worker. Subjects and fields within nutrition which require a doctor or a biochemist would be inappropriate and completely irrelevant for a trainee who has had little to no formal education. Training that is completely unrelated or even dissonant with the workers function may also be counterproductive.

Other than level and capacity, very little can be generalized about suitable subject matters and how much is enough. Research and experience are needed to determine critical and maximal levels of relevant knowledge needed by a worker in order to enable him to function effectively and confidently in his duties.

However, some standards and caveats can be set forth: Workers in nutrition need more than knowledge and skills in nutrition; they need to be able to identify local needs and problems and to solve these. The use of local personnel to staff programs may be one way to satisfy this need but provision must be made against the time or area where such trainees are not available. Also some perspective is needed when the local worker has blind spots about local conditions.

"Tunnel visioned" or monovalent workers are best avoided. Although they may work in specific nutrition programs, the target audience is very apt to consult with them on other problems. Also, improved nutrition is not necessarily a felt need and the expression of other problems or needs on the part of members of the target audience could be valuable information as to the nature of the priorities in the eyes of the community -

pointing out a possible path to eventual nutritional service. Fervor to sell nutrition as the answer to most problems could endanger the position of the worker in the estimation of the target audience and eliminate a valuable source of information. The field worker must be shown that nutrition is one of the several paths which lead to the ultimate goals of personal, family and national welfare.

#### Training Communications Experts in Nutrition

A valuable resource to nutrition education would be appropriate AV materials and methods of utilizing and adapting them. Training nationals in skills involving the development of materials and programs could go a long way toward offering truly appropriate (in terms of local need and nature; in terms of culture) materials.

Initial efforts in nutrition communications may be handled by nutritionists and doctors (if available); however, as knowledgeable in the field of nutrition/health as they may be, communicating this knowledge is another dimension with a new set of variables and implications. As communications expertise is developed, collaborative efforts between nutritionists (health personnel) and communications experts should be encouraged, with the eventual goal being the development of communicators with expertise in nutrition (or possible overall health) promotion.

#### Training Program Flexibility

Training programs should be flexible within their own framework and over time in order to establish an infrastructure which is capable of coping with the varied conditions which cause malnutrition. Awareness of the kinds of forces which add or detract from nutritional status should be stressed. The progression of technological development can distort food habits and nutritional status. For instance,

as masses of people migrate to cities for jobs, the women tend to drop breast feeding under the double influence of advertised convenience baby foods, and the example of wealthier mothers. With family budgets insufficient to provide enough of the new and expensive baby foods, the infant's nutritional needs are not met.

That such difficulties may happen can be foreseen, but the specific consequences cannot always be foretold. Feedback of current situations, attitudes and program redesign should precede retraining. This suggests the necessity of periodic "refresher" courses for personnel connected with nutrition education programs, particularly for those working in programs in the more remote areas of the country. These courses might entail bringing workers in from the field for brief and intensive seminars, courses and discussions, or it might be handled through the communications media. The advantages to the communications media retraining approach would be twofold. First of all, it would mean that workers can stay in the field, where they are needed, during the re-orientation. It would also allow the re-orientation process to be handled with more deliberation and to benefit from the "field perspective" of the worker rather than isolating him in time and place during re-orientation.

This possible chain of events which could influence nutrition also suggests the need for policy makers to maintain contact and collaborative efforts with other agencies and ministries as policies and programs are being developed and implemented. In this way, the implications which these new areas of development might have in relation to nutritional status might be anticipated and planned for.

4. The Strategic Employment of Incentives Toward the Creative Use of the Media.

It may well be that the local worker is more sensitive to the target population and the problem than the programmer in the Capitol City.

Most methods for employing the media in nutrition education are bound by the image and style of the American-European program developer-producer. It is recommended that incentives of cash, status or other reward be offered to those workers who make use of the media in new and creative ways that can be demonstrated to be effective in specific situations. The 8mm camera, or 35mm camera making slides and other media might be provided to more enterprising program workers. They would at least return with local material that might be incorporated into programs and at best might produce qualitatively new and different materials that are more appropriate to their settings.

Incentives might also be offered to the worker who can isolate and perhaps solve significant problems that result in the improvement of the program. The isolation of a specific reason for dropout plus a way of avoiding such loss might be rewarded by having someone playing the role of the client. In this way the worker will be accorded the status associated with appearance on the media and provides a model of creative contribution to other workers.

Not only do these strategies stimulate the search for greater creativity, they also provide evidence that the role of the worker need not be a rote repetition of the words that are taught to him or her but that program staff are encouraged to see, hear, understand and contribute to the program, that they are a respected part of it.

### III. COUNTRY - SPECIFIC NUTRITION EDUCATION STRATEGIES

#### A. The Republic of Zaire

##### 1. Introduction

Zaire represents an interesting situation in terms of efforts to improve nutritional status. There is a realization of the social and economic basis of nutritional status. Attempts have been made or are being made to improve nutritional status. However, wide-scale, in-depth nutrition education programs have not been attempted, nor have any been announced for the near future. The development of further programs has been and probably will continue to be hindered by (1) the lack of governmental policy and guidelines as well as mechanisms for carrying out such policy; (2) the lack of professional expertise in nutrition; (3) its priority in relation to other developmental activities, and closely related to this, (4) the current inability of the physical environment to support comprehensive nutrition education activities (e.g., the inadequate distribution of agricultural products).

In contrast to Colombia and Indonesia, the Republic of Zaire does not have a clear line of action stemming from the upper echelon of government policy makers. ORNAFAM (Organisme National Contre la Faim) has been established as a bureau in the Ministry of Agriculture with the assistance of FAO. Within FNPS (Fonds National de Promotion Social - in the Ministry of Social Affairs) the Centre de Protection Familial has been established. These organizations however, have not had a great effect.

In addition to the public agencies, there are some relatively small-scale public and private organizations as well as various religious and relief agencies operating in Zaire. All of these entities seem to be working independently, with no clearly defined common goals other than improved nutrition; it is likely that they are not having the impact of which they are capable.

Another consideration is the current emphasis being placed on curative medicine and facilities. This is certainly a great area of need and these facilities and capabilities are an entry point to more preventive efforts; however there is a possibility that this emphasis will outweigh the need for social and behavioral research and development.

2. Program Strategies

a. The Establishment of a Nutrition Education Communications Network

The establishment of a nutrition education network might offer a temporary amelioration of the current situation and provide a basis for future activities in nutrition education (and other developmental activities). This strategy would essentially follow the same pattern as outlined under section A1 in the section of General Strategies. It is designed to promote cooperation and mutual assistance between the public, private and relief organizations and to help coordinate the various groups operating nutrition education programs into an overall program with national scope through the use of communications media (specifically radio).

The establishment of a University-associated coordinating agency might offer substantial benefits to Zaire and to future as

well as current nutrition education programs. Among these are:

- the establishment of training programs (in nutrition, communications, AV materials development, etc.)
- the recourse of field programs to multi-disciplinary expertise for help in solving problems which have not been encountered before or not necessarily nutritional in nature
- the dual utilization of IO and Zairian nutrition experts
  - (1) as consultants to field operations
  - (2) to train Zairian personnel (in nutrition education specifically or to incorporate nutrition into other disciplines)
- the accumulation of data and statistics from the field of a basis for further programs.

Additionally, the recent nationalization and incorporation of the Zairian universities might suggest a central office of the coordinating agency at the main campus (Kinshasa) with regional branches at the other campus locations. This manner of quasi-decentralization might encourage regional expansion as well as offer the ability to pool all the resources of the national university via strengthened between-campus communications channels. The military with its superior communications capability may also be useful where appropriate. Development of such a network would require close communication between several agencies and ministries in Zaire. Integration of available market information and related areas with transportation are only a few elements required.

Effects and Implications:

The establishment of a Zairian nutrition education network as outlined above would build on available expertise in nutrition education and in communications as well as coordinating them with other fields (e.g., sociology, anthropology, education, etc. are all possibilities). There is a strong potential for training, of field workers and direct communication with the target audience. There would be an opportunity for applying specific Zairian skills to the ability to transfer, adapt and innovate techniques and technologies for the needs of Zaire.

The establishment of communications links between nutrition education programs, between the field and program and between the central agency and regional outposts would penetrate into more remote areas of Zaire and diminish the feeling of isolation which might discourage workers from going to or remaining there.

b. An overall strategy for Zaire would use existing institutions for spreading nutrition education. Although in-depth and wide-scale development of nutrition education programs is not currently feasible in Zaire, there are existing programs and organizations which would be acceptable, even desirable channels for nutrition education. Further, there are development activities currently in-process or scheduled for the near future which would also be appropriate channels for the presentation of nutrition education programs.

The utilizations of core nutrition education materials presented via various media would allow the presentation of fairly complex material without depending on extensively trained "field" personnel.

Women's social clubs have existed in Zaire since pre-independence days. Their eminence and acceptability in the Zairian life-style might be used as a basis for converting social clubs to settings for media presentation and discussion groups. Radio programs and film strips might be used to present core nutrition materials. Additionally, in urban areas, television broadcasts of general interest to women, which incorporate nutrition themes (or skills having a relation to nutrition, such as budgeting, marketing, food preparation, etc.) might be beamed into these clubs. These programs might be part of normal television broadcasting or might be specially coordinated for use in the social clubs. The use of television broadcasts might be an additional incentive to bring women into these clubs.

Another appropriate setting for nutrition education would be health clinics, allowing the utilization of the motivational impetus provided by curative services. Use of training para-professionals or sub-professionals to present the media programs would free the doctor (or in cases, nurse) for his needed curative services; it would also allow nutrition education to be incorporated into the centers where there hasn't been enough time or enough personnel to engage in preventive services of any depth. Health clinics may also benefit from including nutrition education programs by reaching the "repeaters".

Health centers are a good context for nutrition education; they have the ability to demonstrate the relationship between diet and health. Use of the media can reinforce this relationship; it can also be used to demonstrate skills with which to implement the goals of nutrition education. In the Zairian context, use of the media in this

manner would also allow the incorporation of preventive services with the current emphasis on curative medicine and medical facilities.

In the rural context, a multiplier strategy might be considered to circumvent the lack of health clinics and other institutions. One way in which this might be implemented is through the inclusion of nutrition education skills and instruction in how to utilize nutrition education (media) programs in the training of agricultural extensionists, teachers or other field workers. These people have contact with the community; moreover they are generally respected by the community. A further implication is that nutrition education activities could be conducted prior to and coincidentally with developmental activities which have traditionally distorted dietary patterns in the past.

This overall strategy might be further implemented through the incorporation of key nutrition education themes as background material in telenovellas or radio dramas, etc. Such themes might include planning menus or family feeding (priority) patterns. If broadcasting can be contained in an area where nutrition education activities and other resources will support change in present habits, dramas might even be centered around the causes and effects of malnutrition.

Beyond this, there already are media programs in Zaire which deal with health and general interest items for women (e.g., Programme de la Femme). These might be expanded to include more specific nutrition education messages such as the benefits of breast feeding, problems with status foods, or family feeding patterns.

Coordinating the presentation of core media nutrition education programs with existing institutions and programs allows more immediate implementation of nutrition education activities with the public and without demanding vast amounts of trained infrastructure in nutrition education per se. Bringing nutrition education through such programs could involve association with another positive and respected force in the society.

This strategy will also benefit from input from and coordination with the nutrition education communications network described above.

The basis for additional strategies may be included in the following suggestions. These are offered in more cryptic form because parallel or similar ideas have been presented in other sections of the report.

A girl scouting program geared to nutrition and family life education. Training could be facilitated via:

- a. Radio or TV to troop headquarters
- b. Radio to the home.

Services performed might include:

- a. preparing nourishing dishes - for cubs
- b. assisting at Mothers Clinics for Young Scouts
- c. caring for families or working as nutrition aides for older girls
- d. new program development for girl scouts equivalent of senior rank - either practical village or community; e.g., school lunch program planning or media development

Merit badges for older scouts might include Chemistry, Physiology, etc. The achievement of the highest rank could qualify girls for attendance at the University (if other qualifications are met).

Such a program would fit with the Zairian pattern of keeping women apart from men while promoting their gradual emergence from the home.

A number of other strategies could be adapted from those presented in other sections. An example of this would be the inclusion of nutrition education in the Social Foyers as discussed in the section on Basic Education.

## B. Colombia

### 1. Introduction

Colombia has been actively concerned with the improvement of the public nutritional status since 1943 when initial surveys and diet analyses were undertaken. Government policies, the nutritional agencies and the ensuing nutrition education programs have demonstrated an awareness of the nature and extent of malnutrition.- its causes and effects - and an ability to deal effectively with it. Colombia represents a fine example of wide-range, multi-disciplinary, and long-term planning for nutrition education in the community in line with national needs, priorities and resources. There is little that can be done to improve on the basic program begun by Dr. Rueda-Williamson and continued by Dr. Paez and his colleagues at the Direccion de Nutricion.

The basic Colombian needs regarding nutrition education are (1) the ability to extend programs beyond the areas where they now operate and (2) substantive development (e.g. infrastructure).. To this end, strategies have been suggested to increase the utilization on and emphasis on the abilities of the media - perhaps as the ultimate "multiplier".

### 2. Program Strategies

#### a. Media as a Multiplier

Very little needs to be said in regard to Colombian capabilities and experiences with multipliers (see section II-A-2). In terms of Colombian skills in media utilization, programming, and development of supplementary materials as well as the increasing Colombian expertise in behavioral research, greater emphasis on media programs in association with nutrition education activities might be suggested to coincide with the development of the more rural areas in Colombia. The emphasis on media would include programs to be used with general audiences; in training programs; and for communications purposes between field areas and the central office in Bogota (or provincial centers).

One important element of this strategy is that it would allow the training of local people as field workers (in the sense of multipliers, mother-craft center monitors, etc.). It would also allow the utilization of fairly complex, in-depth nutrition education materials geared to specific needs of the target populations. Core materials, such as those now being used by the Direccion de Nutricion, or developed specifically for the extension of activities into more remote areas would be used initially in the training of local multipliers. Evaluation and feedback from the field on materials used, adaptations needed and particular areas of need in working with the target audiences could result in more specific

and effective core materials for regional broadcast or films for use in group presentations, etc. Other AV or software materials might be most appropriately developed in the field situation by representatives of the Direccion de Nutricion in coordination with local field workers.

Implementation of this strategy would provide the ability to bring nutrition education activities into more remote settings at a crucial time - when the behavior setting is in a state of flux and when dietary patterns and habits are most likely to be distorted. It would also allow greater use of local people as field workers, thereby countering possible adverse effects if field workers were brought in from other sections of Colombia and utilizing their knowledge of the needs and priorities of the target population and the region. It might likewise encourage their feeling of participation in national development by incorporating them into a key development activity.

b. Further Media Strategies

In Training: As suggested by the above, further emphasis might be beneficially placed on the utilization of media in training nutrition educators. While the implementation of the training strategy suggested for professional level workers (see section II-C) might be rather simplistic for the present Colombian situation, it might be adapted to present more complex materials. For example, work being done in the Research section of the Direccion de Nutricion could be brought via tapes, closed circuit TV, etc. to the nutrition section of the University of Cauca.

Use of media presented materials for training sub- and para-professional nutrition education workers (in health centers, etc.) might follow the lines suggested in section II-C.

With Target Audience: Additional use of the broadcast media might be made in order to reinforce more detailed nutrition education activities and to increase the level of awareness of nutrition education on the part of general audiences. These would essentially follow the lines suggested in section II-B-2, although adaptations more specific to the Colombian situation might consider such tactics as incorporating a "multiplier" as a sympathetic character in a soap opera.

## C. Indonesia

### 1. Introduction

Improved nutritional status and nutrition education is a vital concern in Indonesia. Government policies have been enacted and mechanisms for implementation of these policies have been established. The center of all nutrition activities is in the Directorate of Nutrition in the Ministry of Health; there are also food and nutrition units in the Ministries of Agriculture, Education, Interior and Social Affairs. There are educational facilities for training dietitians and nutritionists and for the incorporation of nutrition education in medical training.

Despite all of this however, program implementation has been largely ineffective. This is partially attributable to lack of coordination among ministries and lack of infrastructure, however, the overwhelming hindrance is the lack of food. Many farmers on Java are actually below subsistence level.

In a situation such as this, nutrition education has two alternatives. It may be postponed until agricultural and transportation development activities are well under way and productive, or it may work with the establishment of available substitute foods, particularly those by-passed through ignorance or cultural and social interdiction, as dietary staples. It is to this second alternative that most of the following strategies have been addressed.

### 2. Program Strategies

Beginning nutrition education programs should be contingent on the availability of foods or substitute foods, e.g., those ignored because of cultural or social taboos.

a) A significant beginning point for nutrition education activities would be to aim at the upper classes. They might be reached through the universities, via radio or TV programs or through women's clubs and other social organizations.

Their value as a reference groups and their cooperation in establishing standard dietary practices could be beneficial in:

- overcoming social and cultural taboos against certain foods (e.g., the consumption of fish by small children);
- encouraging lower class families to avoid the high-priced, high status convenience foods and reinforcing good nutrition habits (e.g., breast feeding, although this is not generally as much a problem in Indonesia as in other developing countries).

The value of this strategy might best be realized in sequencing it prior to other nutrition education activities with the general public. As new messages and skills (such as those that are embodied in the following communications strategies) are presented to the lower classes their new attitudes and behavior would be reinforced by the behavior of their reference groups.

b. Various media may also be used to reinforce nutrition education activities aimed at overcoming food taboos.

(1) Shadow plays might incorporate this theme as a part of an overall drama. Further, utilization of this indigenous and localized medium would allow adaptation for more regional variations and reinforcement, through a socially addepted medium, of behavior overcoming these taboos.

(2) Materials prepared for literacy programs could include this topic (as well as other nutrition education topics, child spacing concepts, etc.). Where literacy is a top priority, the incorporation of this subject might have an additional positive effect by encouraging the association of these foods (generally protein) with intelligence or brain development.

(3) Similar to the use of shadow plays mentioned above, radio dramas might also include this theme.

(4) The combination of any or all of these media would bring additional reinforcement.

This same technique could also be used with other nutrition education topics.

c. Where health centers exist they may be used as settings for (1) training workers and (2) nutrition education programs for the general audience .

The training of health center workers has already been covered in detail in this report (see section C, General Strategies); however one detail particularly pertinent to Indonesia might be added. Because of the dialect and language differentiation across islands, speical consideration should be given to the use (and development) of non-verbal materials such as films, slides, books, etc. (This might also be an important concept when dealing with illiterate populations.) Presentation guides for the trainer might be developed to accompany these materials.

Likewise, materials developed for presentation to the general audiences, as well as take-home materials, might be non-verbal in format.

d. Indonesia has an additional resource in the Pramuka Movement which may be utilized in the training of health center workers or in working with general audiences. (The Pramuka are essentially boy and girl scouts trained to conduct activities concerned with improving production and consumption of food at the village level.)

Extension of the activities of these field workers could be realized through the use of media presented materials in their initial training, in subsequent refresher or recycling programs; and in establishing communications links between their agency and the Ministries of Health and Agriculture. (See Vol. III, pp. 170-179) Not only would they be kept aware of current trends and activities in national development (so as not to present dissonant messages) but their feed-in to program developers and policy makers would provide valuable information on field conditions and audience characteristics for (immediate and future) program implementation. Further detail on the use of media in conjunction with field worker activities may be found in Volume III, pp. 150-152.

e. Another way in which to reinforce behavior leading to improved nutritional status might be through the coordination of non-verbal print materials with other media or non-media nutrition education activities.

One way in which this could be implemented is through the development of picture-recipes to be distributed (at easily accessible spots) in conjunction with gourmet-type radio or TV programs, or even in association with industrial feeding programs. This latter might be especially attractive because it brings male support into changing or reinforcing dietary patterns.

Other media strategies for Indonesia might be adapted from those discussed in Section II-A and Section II-B above.

**SECTION B:**

**NATIONAL STRATEGIES:**

**COLOMBIA**

**INDONESIA**

**REPUBLIC OF ZAIRE**

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### Section B

#### NATIONAL STRATEGIES FOR COLOMBIA, INDONESIA AND THE REPUBLIC OF ZAIRE

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## OVERALL STRATEGIES FOR COLOMBIA

Colombia is a nation in the latter stages of development. She is mistress of not inconsiderable resources - human, technological, and institutional. She has a rich but thin upper stratum of creative and effective specialists in media, education, nutrition, and family planning. They are backed up by an infrastructure of established programs and public and private organizations, but they are not in sufficient supply or sufficiently organized to meet the need. Colombia's communications development is substantial, with public and private radio reaching all parts of the country, and television transmission to most urban areas. A satellite station has been built.

Current Conditions and Problems: Colombia's economy has been based heavily on agriculture, principally on coffee production for export. Some manufacturing is done for domestic consumption. There has been rapidly escalating migration, however, from farms to cities (industrial) and from rural areas to towns. The trend is toward the growth of large cities rather than small towns. People remaining in rural area are trying to cope with a recent change in the land tenure system and need considerable educational assistance to cope with new problems they face as land owners.

The cities are faced with growing unemployment and few programs to train unskilled in-migrants. In the majority, migrants are economically active age groups.

Intensifying each of these problems is the high and rising birthrate, combined with increased longevity, making Colombia's growth rate 3.4% annually. Half the population is below 15 years old and the ratio of dependents to the labor force is increasing.

Priority Program Needs: Thus, Colombia needs programs in rural areas to improve agribusiness, to increase farm production and efficiency and to help make rural areas more attractive as an alternative to city barrios.

In urban areas programs are urgently needed to help the masses of people in barrios, to help their families cope with their new setting. Programs supporting labor-intensive industry, with the objective of stemming unemployment and approaching industrial self-sufficiency are also of high priority.

Also, Colombia's infrastructure for communications needs shoring up at many levels, from maintenance and technicians to researchers and specialized programmers (as in family planning) to top level communications specialists.

## INTEGRATED PROGRAM STRATEGIES FOR COLOMBIA

The following mosaic of integrated strategies for the use of the communications media are designed to address the needs described above: to help solve the problems of both rural and urban barrio populations, to provide skills from family life planning to vocational skills, to train an infrastructure of communications support personnel at all levels, and to stimulate the communications industry, simultaneously increasing job opportunities. They are designed to supplement, complement and in some cases, to be alternatives to, specialized program strategies in Basic Education, Family Planning and Nutrition Education, which follow.

In summary, the integrated communications strategies include:

- A Comprehensive National Program (meeting the needs of the people at both ends of the migration pattern - rural and urban)
- A Communications Instituto
- An Extension Training Program (for technical communications support personnel)
- Telenovella (example of a self-contained broadcast program).

In addition, alternative consultation strategies for the U.S. in relation to Colombia are suggested.

**STRATEGY:** Comprehensive Program (National System of Regional Broadcasts) Dealing with Migration from Country to Cities.

This program is a comprehensive way to use the communications media to deal with people's problems at both ends of the migratory pattern - in rural areas and small towns on one end and city barrios on the other. Although the program is comprehensive, its components are not interdependent. Each of the components could be implemented separately; they can be varied, changed, or substituted. Furthermore, they can be implemented in segments, over time, and/or moving from the simple to the more complex.

When Colombians start building such a system, some foci of growth will work better than others, depending on local priority needs, sources of funding, media facilities, and existing educational organizations. In one locality, for example, it may be best to build the program around an existing mothercraft center, introducing broadcast later; in another place, it may be best to start with broadcasts and to coordinate them later with informal educational centers.

In the country, programs would be beamed to small towns and rural areas from regional capitals (broadcast to a variety of centers, such as mother's clubs). As campesinos migrate, the system would meet him in the city barrio with a "welcome wagon" type of program, designed to help recent migrants adjust to their new life. A social worker or person connected with the program could visit the new migrant and his family, leave him with an inexpensive portable radio and tell him about the program broadcasts, when they are and what they can tell him.

Broadcasts would focus on informing newcomers about resources near him, caveats for newcomers, vocational and family life skills. For example, a morning program could list available jobs that day, food bargains and housing opportunities. There would be information on medical, family planning, nutritional resources, social welfare services and vocational educational opportunities if they exist. Children's programs, entertainment and a "mother's club of the air" could be broadcast during the day and a family life skills program in the evening.

When social workers see that critical groups are forming, over time, the broadcasts could progress to a new phase - fostering the growth of community centers, via a "community bulletin board". For instance, whereas the program might have started by broadcasting a "mother's club of the air" or a "man's hour," it could now move on to promote actual neighborhood mother's clubs (or men's clubs), where they could get more information, materials and demonstrations of making a meal or fixing a carburetor. The program announcements might be specific to identifiable neighborhoods

For the full discussion of how educational media can be used to help form the nucleus of functioning communities in Colombia's barrios, see Volume III, Basic Education, p. 37 ff.

In the 'campo' and small towns, programs beamed from regional capitals would be geared (a) to foster a sense of regional identity; (b) to give campesinos reasons for remaining in the country rather than migrating to city barrios (by guiding them to local resources, improving their agricultural and family life skills and, perhaps, indicating the dimensions of some of the problems they may encounter in the city); and (c) to smooth the migration experience for those who are moving to the cities, by indicating what organizations and radio broadcasts can help them when they get there. (The special role of literacy programs in helping to slow or reverse immigration and the development of an urban version of Radio Sutatenza, see Volume III, Basic Education, p. 28ff.)

Rural programming would offer broadcasts such as a "farm school of the air", mother's clubs, and vocational education programs. SENA might play a role in this program by extending into rural areas to provide on-the-job remote training for small town people in mechanics and new technologies in rural life (eg. by teaching truck mechanics, electrical skills, irrigation, farm machinery maintenance, etc.)

Vocational education in both rural and urban areas for men and boys (ideally utilizing TV) could be broadcast during a "man's hour", with sports, fishing, agricultural tips, etc. and introducing other skills such as auto repair and radio/communications technical skills. Literacy could be fostered indirectly via support materials associated with these broadcasts.

A program segment could deal with how to build (a crystal set) and use a short-wave radio (out of kits or available materials). Following broadcasts teaching new skills could be exclusively on short-wave radios that the listeners will have built themselves in most cases. Thus, the communications media itself would carry more than a message; it would be lab equipment, helping isolated populations learn about communications as a mastery device and setting the stage for developing future communications technicians.

A Communications Boy Scouting program might be sponsored by the broadcast media (see Congo recommendations).

#### Systems Characteristics and Implications of This Program:

1) It is designed to meet the needs of the people across both space (from campo to barrio) and time (as their priorities change). The program would be based on the natural history of people, both in the campo and barrio. Not only would research be conducted on living patterns (eg. when people listen to the media, etc.), but also on when and what crises they face (including what needs and problems campesinos have that lead them to migrate to cities). Priorities in city barrios would be assessed over time, from immediate needs of recent in-migrants to succeeding needs. Family planning, for example, might be secondary to the more immediate needs of housing, jobs, adapting to food supplies, etc.

Sensitivity to needs and changes in specific settings can be achieved by research by the Communications Institute (see description below) and information from social workers in the field, from educational centers, and in some cases, from correspondence from listeners addressed to the program.

#### 2) Economic, social and political implications of the program:

- increases educational resources.
- unites a nation with many physical obstacles and cultural differences.
- relieves isolation, both physical and psychological isolation, of remote segments of the population (remote because they are isolated in the campos, or remote because they are "lost" in the nation's barrios).
- stimulates the development momentum of the country by introducing the concept of mastery on several planes.
- creates a communications industry with more opportunities for employment (develops a cadre of young people skilled in communications).

#### 3) Strategic mechanisms employed:

- Crisis Intervention (via continuing assessment of needs, natural history).
- Hands-on Experience (through center programs, vocational education programs).
- Modeling-Human Reference Group Leverage (Each group reached by the several components of the program has a reference group to model itself on. Media telescopes or leap frogs many of these reference groups, supplementing those models who work in educational centers.)

## Key Policy Decision Points

### 1. TDN Administrative Decision Points

#### a. Agencies within TDN with which to work: Public, Private, Quasi-Public

If this comprehensive program were fully developed, there are many alternative agencies in Colombia that would play a part. The Ministries of Information and of Education, Bienestar Familiar, SENA and INCORA, plus other government agencies could play important roles. Private radio stations and communications industry could play roles not only in broadcasting, but in the communications technical training or Communications Scouts components. Other private industry, such as tire manufacturers or farm machinery companies, could sponsor vocational education in rural areas, for example, with the advantage of developing a network of trained service representatives in more remote areas. The Church has available personnel experienced in broadcast education, literacy and rural programs (e.g., Radio Sutatenza). Their experience would be invaluable to such a program. Also, the Communications Institute (described later) and/or universities could be involved in training and research roles, for example.

The decision as to what agencies to involve will vary from region to region, according to what is available and most appropriate; over time, more agencies may be added and roles may shift.

#### b. Media Choice: Radio, TV, or other

Colombia will have to select among the available media according to the cost (who is sponsoring or funding the program), what is available (there is hardly any TV in rural areas nor are they accessible to TV) and what is the most appropriate for given programs. TV is more important for vocational training than for a morning radio program telling about available jobs and food bargains. Radio is more appropriate than TV for programs reaching busy people or people in transit during the day. TV is also at this stage more appropriately utilized perhaps in urban community learning centers, since few barrio dwellers could afford it.

#### c. Location of Communications Facilities and Functions: In each separate program agency or unified in one agency.

Since this program has so many potential components, Colombia has several options for location of communications functions. Those public agencies with facilities and trained personnel might generate their own program components. Private industry could be contracted to program some components and a Communications Institute might have some programming capabilities across disciplines.

## 2. Programming Decision Points

### a. Subject Area to be Emphasized

This decision will be made according to priorities in each area, based on national and regional priorities and based on the natural history research described above. The subject area to be emphasized will change over time in response to people's changing priorities and interests, as one felt need is satisfied, others become more salient.

### b. Direct Informational Approach or Indirect Approach

As described, the comprehensive program includes both possibilities. A combination of both is probably most effective. The availability of follow-up services, political priorities and the receptiveness of the audience to direct confrontations with issues will determine which approach to use. For example, family planning concepts may more appropriately be incorporated in a telenovella (indirect) in some areas first.

### c. Should Programming be Central or Regional, and with what degree of local adaptation in either case?

The essence of this strategy is to target media programs to local needs and characteristics in so far as possible. Whether this can be achieved via local origination or via regional adaptation of centrally produced material or central adaptation for regions will depend on local resources, funds and talent. A system of modularizing radio programs that are centrally produced and training local or regional people to adapt them to local needs is an intermediate option to local origination. Some subject area material does not suffer from central production as much as others. For example, vocational education, some agricultural information, child care and health may be more amenable to central programming than family planning and nutrition, which have to be more specific to cultural differences. Combining central broadcast programming with localized supplementary materials is another valuable option.

STRATEGY: Communications Institute

Central to the communications system in Colombia and performing a variety of key roles could be a Communications Institute, a higher education institute for communications. Colombia has a cadre of professionals and creative people to staff such an institute now. Among the roles it could play are:

- a) Training: Colombia's infrastructure for communications needs shoring up at many levels - from maintenance personnel and technicians to researchers and specialized programmers (as in nutrition, family planning) to top level communications specialists.

Later, there might be an experimental high school and perhaps an elementary school associated with it, that could deal with informal and formal education and new curriculum for preparation in communications skills.

- b) Research: Some of the research mentioned earlier, such as the natural history of specific target populations, might be conducted - plus other communications/relevant research. Relevant to basic education, the Institute could conduct research into how the media can be used to teach visual literacy, circuit training, color coding, etc. to meet special urban and rural needs.
- c) Production: Programming, including nutrition education, family planning, and basic education areas.
- d) Coordination: The institute might act as a catalyst for coordination between related organizations - public, private, and non-profit and between related disciplines with interdependent communications problems - such as nutrition, agriculture, family planning, and basic education.

In any case, the Institute would relate separately, at least, with the many relevant organizations in the several sectors. One role it could play, for instance, would be to work cooperatively with Radio Sutatenza to develop urban literacy programs.

The institute might be associated with a single ministry for political and coordination purposes, or it could be a consortium of Education, Information, Development, etc.

Key Policy Decision Points

The development of a Communications Institute is an option in response to a number of key administrative policy decision points.

It represents a decision for institution-building rather than short-term crash programs. It also has the potential for more unification of communications facilities and functions in one institution rather than each program agency (e.g., SENA, Bienestar Familiar) having its own fully developed R&D facilities. By pooling available talent and serving as a mechanism to train local program personnel to develop indigenous programming, the Institute offers an alternative to heavy use of outside consultants.

Should the Institute be public, private or quasi-public? At this time, this is strictly a question of government policy based on the most effective method for enlisting the resources of the nation. Further consultation would be required if U.S. is requested.

STRATEGY: Extension Training Programs in Communications

To further develop the communications infrastructure - support personnel - Colombia could develop extension training programs from the Instituto, and apprenticeships for technical jobs. The extension training could be through local consortiums of radio and TV programmers (private included) and universities in all the training aspects mentioned above.

There could be an annual All-Colombia Competition, an award festival, with different training centers in the consortium competing-- in productions from short subjects, spot news, etc.-- so that participants would not only strive for excellence, but would also see good material by others.

STRATEGY: Telenovella

A telenovella (on radio or television) is an example of a self-contained broadcast program which can reach people indirectly with information and education. It can complement other programs, or can act as a single-dimension alternative (not requiring field personnel or education centers).

One variation of the telenovella could be a serialized drama about a model individual, a familiar person (e.g., a field worker) illustrating his or her constructive behavior. The program in this case would have two dimensions: it would serve as a model and would also show how the field worker solves problems he or she finds in the lives of those he works with in barrios or rural areas.

Key Policy Decision Points

The telenovells represents opting for one alternative over another at a series of key programming decision points. It is an indirect rather than a direct approach, serving as a method of familiarizing people with nutrition or family life planning concepts and resources, for example, while entertaining them. Telenovellas are one way of using the broadcast media alone to reach people. They are an integrated rather than a separate program type. Rather than hearing only separate, fragmented messages relating to basic education, nutrition, and family life planning, audiences are hearing about these related family problems and solutions together, as they are confronted in real life. As such, telenovellas would complement rather than substitute for other problem-specific program options.

INTEGRATED OR SEPARATE PROGRAMS: A Key Policy Decision  
Point for Colombia

Unlike many developing countries, Colombia is much farther advanced in that she has well-developed specialized institutions and programs in such fields as nutrition, agricultural extension training, vocational education and family planning. It has appeared to be a pattern in many nations in the world that integrated programs across disciplinary and problem-specific lines are developed only after separate development of programs and institutions in discrete problem areas. This initial stage may be necessary in order to inspire a sense of professional identity and to give impetus to budding efforts, as well as satisfying the demands of the bureaucracy.

At this stage in Colombia, integrated programs may become both acceptable and valuable, providing a mechanism for following up the activities of the discrete public and private agencies. Indeed, Colombia has already started to integrate, e.g. in Radio Sutatenza, in Bienestar Familiar and in the Coffee Grower's Association (integrating family planning with agricultural extension education).

An example of Colombian organizations with potential for integrated programs are the two central labor unions (CTC and UTC). These powerful gatekeepers are increasingly interested in social, industrial and agrarian reform. They could develop their own informal public service educational programs (and have in some cases) or could be included in a national program.

## SPECIALIZED PROGRAM STRATEGIES FOR COLOMBIA

The following are summaries of problem-area specific program strategies (vs the integrated strategies described above) in basic education, family planning and nutrition for Colombia. Since these strategies are discussed in considerable detail in Volume III, only the key concepts are reviewed here, with illustrative key policy decision points when appropriate.

### BASIC EDUCATION STRATEGIES FOR COLOMBIA

(See detailed discussions on pp. 28 - 47 of Volume III).

#### 1) Literacy Program for Colombia - Adapting the Sutatenza Model for Urban Populations

This program would focus on job opportunities and on teaching crucial city skills to the urban poor to provide factory workers for national industries; it would also discuss current farm opportunities and information about rural areas to reverse some of the migration to cities. It might include a special training program for new urban literates as teacher aides for assignment to understaffed village schools, another strategy for reversing migration. Rural literacy components would concentrate on teaching farmers agribusiness.

Key Policy Decision Points: a) Whether to use radio alone or also begin television programming for literacy in the cities; whether the Colombian government chooses to intervene with a public effort through Ministries of Education and Information, or enlist union or industrial help; whether to leave the program to an extension of Radio Sutatenza or to any given church-related agency; whether or not to combine urban literacy efforts with an active reverse-migration effort. Critical factors affecting these decision points are internal political ones concerning the relationships between government, Church, unions and industry; budget allowances for rural education; present and projected spread of television to the poorer urban groups; associated programming skills available.

#### 2) Visual and Other Literacies: Inclusion into Colombian Rural Programs

These literacies include:

- Visual literacy (pictorial, e.g. understanding of international film styles)
- Mechanical literacy (knowledge of motors, machinery, repairs)
- Mapping and Tracking literacy (necessary for electronics work and urban and rural community development work)
- Color Coding literacy
- Agricultural literacy (basic arithmetic, farming techniques, etc.)

These literacies and their importance and strategies for their incorporation into adult programs are full discussed on p. 33ff. of Volume III.

### 3) City Community Centers Utilizing Media

This strategy entails the setting up of small neighborhood community centers where critical practical priorities could be met while basic education is improved - emphasizing specific city skills and home improvement, for example. Radio and TV receivers in the center would offer a special drawing card - and would present pilot-tested core programs. Services would be combined at one accessible, familiar place, e.g. an existing public health clinic or school. This strategy dovetails with the Comprehensive Program described above. Urban broadcasts would include news about rural events and opportunities to encourage reverse migration and preserve a sense of social identity for migrants.

Key Policy Decision Point: Whether to start such efforts on a pilot basis in a single city, or begin with the Comprehensive Program and set up city community centers only later, will depend partly on national priorities about informal education or migration programs, as well as the availability of resources. If pilot centers are decided on, however, planning from the beginning can still take into account a later integration with the broadcast/social service Comprehensive Program plans.

### 4) Parent/Child Centers - in rural areas of Colombia and new towns:

Bienestar Familiar clinics and workers might form the early corps and center for a mother/child learning program with media core components - to develop the concept of the young child as an "active" learner and of mothers as teachers of their young children.

Girls could go on to mothercraft center training. Boys could "graduate" into vocational apprenticeships - especially in agribusiness, to cope with change in land tenure. This is another strategy that may contribute to reverse migration. Media programs have the advantage of maintaining contact despite people's movement.

Key Policy Decision Points: The development of basic education programs for young children is relatively new, and existing models are largely European and American. There may be an unusually strong tendency here to try to ride the "magic carpet" of translating another nation's successful program wholesale, rather than developing a culturally suitable indigenous one. There is already evidence of the inapplicability of directly translated versions of "Sesame Street" in Ethiopia. A critical decision point arises here relating to how to obtain effective consultation while developing appropriate educational broadcast and materials creation skills

within Colombia, as in the Communications Institute.

5) Home Broadcast - The Family Focus

Dramas, special programs for pre-school Colombian children and games - both broadcast games and others such as inexpensive toys and picture books tapping broadcast themes - can provide alternatives to the traditionally passive role of the child in the family.

6) Basic Education on the Job

It may be cost-effective in Colombia, where many young men and women are employed in households with television receivers (in cities), to reach them for perhaps half an hour per day with television lessons in literacy skills, basic arithmetic and other fundamental education (materials presented by nurses, social workers, vocational teachers, etc.) This would be a way of reaching scattered students who cannot easily be brought together on a daily basis. They could meet with program workers on their day off for further supervision with their homework. Application of the same method in factories (perhaps instituted through SENA) and on the plantations might also be feasible in Colombia. For a description of how this strategy worked in Peru, see p. 46ff. of Volume III.

## FAMILY PLANNING STRATEGIES FOR COLOMBIA

(See detailed discussion on pp. 117-126 of Volume III)

### 1) Mass Media in Clinic Settings

Beaming radio or television programs to clinics (as well as to general audiences) is especially appropriate to Colombia. It would serve a direct function of educating women in the clinic and an indirect one of inhibiting the spread of rumors which frequently occurs in the clinic waiting rooms.

The media programs themselves could deal with the idea of family life planning on a variety of levels, from the concept of planning itself, to responsible parenthood and the maternal and child health benefits of spacing births, for instance. The broadcasts (whether telenovella, mother's club of the air, or family life skills program, for example) could be designed to reach general audiences alone, or be coordinated with other media and face-to-face group discussion in a clinic.

### 2) Associated Strategy - Appropriate Use of AV Materials to Provide Specific Information in Clinics and Mobile Units

In their preparation and follow-up of the broadcast, Colombian field workers can make use of materials and simple audiovisual technologies (slides, filmstrips, single concept film loops, super 8mm films and print take-home materials) to meet specific needs of local areas - e.g., rural/urban; mountain/coastal/valley - and to meet problems specific to that area - fears, rumors, drop-out problems.

### 3) Use of Mobile Clinics with Mass Media Programs

A variation of beaming mass media programs into clinics in Colombia would be to employ mobile clinics in much the same way, with many of the same advantages. Colombia could reach some rural populations by a mobile vehicle (plane, motor vehicle) containing a multi-purpose clinic including family planning services, as well as barrios where people are too poor, uninformed about available services or too far from clinics. Clinics could be flown into more remote areas which would be too difficult to reach by road.

During its stay in a community, the mobile unit could coordinate radio broadcasts and a variety of small media for preparation, follow-up and take-home purposes. Special programs over the radio could be coordinated with clinic programs in the evening, for instance - billed as "For Adults Only" or "For Men Only."  
(See further details and implications on p. 120 ff. of Volume III)

Key Policy Decision Points:

- a) Should mobile clinics be for family planning only or include other services?
- b) Should they be government or privately-sponsored or international (eg. PAHO).
- c) What is the most cost-effective and geographically appropriate type of vehicle for each region?
- d) What back-up personnel, services, resources, supplies are necessary in each area to carry-on and handle emergencies, etc. when the mobile unit is not there?
- e) What broadcast communications materials and what small technologies are appropriate to each type of vehicle and region? Can central programming be adapted to local needs?

4) Use of Broadcast and Other Media for Training

The extent to which the mass broadcast media can be utilized for de-centralized training of family planning personnel in Colombia is a delicate question and will change over time. At this time the full content required for the training of field workers might not be amenable to broadcast. However, more limited training via radio, in conjunction with other media, could be used right now in Colombia. Radio could be used to teach field workers how to coordinate their activities with a related media program; how to adapt and make materials; radio could also teach relevant but non-intimate subject matter such as nutrition and health, etc. Television might be used in the future in cities and eventually in rural areas for some non-controversial aspects of training.

Use of non-broadcast media for training: A great deal more could be done with non-broadcast (limited access) media to train initially and re-train and refresh Colombians in their work locale. These media could be used in a program with broadcast or alone. Tape recordings, for example, of typical questions, fears, rumors etc. from men and women (especially drop-outs) about family planning, and alternative responses by model field personnel could be developed and shipped to local clinics for training purposes. Alternative media are too numerous to list, but include film loops, 8mm films, 16mm films, slides, etc.  
(See further details on p. 122 ff. of Volume III; see also Section by C. Ray Carpenter and Section on Use of Media)

Key Policy Decision Points:

Colombia at the national or agency level will have several key decision points affecting such a training program:

- a) Should the training programming be produced by each agency for its own members or by a separate agency such as the Communications Instituto described in Overall Programs for Colombia?
- b) What media should be used (radio, television, other media, and in what combinations or sequence of program development)?
- c) Should training be de-centralized or conducted in central locations or both.
- d) What should the training content be and how does the content govern the selection of the media; what content is appropriate for broadcast?

5) Integration of Family Planning Communications into an Agricultural Extension Program (details, p. 124ff, Volume III)

The Coffee Grower's Association in Colombia has recently integrated family planning education into its agricultural extension program on a pilot basis. Cafeteros are distributing (selling) condoms and in some cases, their wives are distributing pills (for a small fee). The program has just started and needs educational materials.

The Role of the Communications Media: 1) Broadcasts to be coordinated with field program: A "Farm School of the Air" or a "Rural Family Life Program" addressed to farmers, specifically coffee raisers, and their families could be broadcast on the radio at times when cafeteros can gather men in a local center. He can then prepare them for the broadcasts and follow it up with a variety of other media and materials - from slides and film strips to simple booklets and other material to take home.

Training: The communications media could play an important role in training cafeteros initially and in giving them new information over time. The smaller technologies, e.g., tape and single concept film loops can be used. Even broadcast can help train cafeteros in certain skills, such as how to coordinate their work with all media, including general family planning broadcasts - for instance, about responsible parenthood.

Family Planning Consulting Strategies: AID Key Policy Decision Points

A. Unilateral Foreign Aid of Mutual Assistance

The U.S. has several alternatives in working with Colombia in the field of family planning. It can give "unilateral" aid to Colombian institutions or can work in a cooperative way for the mutual benefit of both Colombia and U.S. populations.

Cooperation can be implemented through programs that 1) tap successful models of family planning efforts in Colombia to derive applications benefiting U.S. populations, and 2) conduct simultaneous or parallel research or programs in the U.S. and Colombia, utilizing communications media for family planning. For example, the cafetero program designed to reach rural men in Colombia may be examined and program applications derived for migrant workers and possibly Indian populations here.

The use of the communications media for family planning in the U.S. has scarcely been developed to its full potential. Parallel media programs could be implemented in both the U.S. and Colombia to inform and motivate developing populations.

B. Alternative Choices For Agency to be Assisted

The need for assistance in the area of communications for family planning has been expressed by organizations in both public and private sectors in Colombia, including PROFAMILIA, ICA, INCORA, and ACOVOL, etc. Bienestar Familiar has asked the assistance of PROFAMILIA in training its personnel to be better family planning communicators.

The U.S. has quite a few options for direct assistance to Colombia in this area. It also has the alternative of channeling all its funds through international organizations, which is a lower-profile alternative to channeling all funds through IO's.

#### NUTRITION EDUCATION STRATEGIES FOR COLOMBIA

(Further details are on pp. 137-192 of Volume III.)

##### 1) Media as a Multiplier in Rural Nutrition Education Programs

Media could be used to extend Colombia's already well-developed nutrition programs into rural areas. Media programs would be directed to general audiences; used in training programs; and used for communications purposes between field areas and the central office in Bogota or provincial centers.

Use of media to train local rural people as field workers (i.e., as multipliers, mothercraft center monitors, etc.) Core materials, such as those now being used by the Direccion de Nutricion, or developed specifically for the extension of activities into more remote areas would be used initially in the training of local multipliers. Evaluation and feedback from the field could result in more specific and effective core materials for regional broadcast or films for use in group presentations, etc. Other AV materials might most appropriately be developed in the field situation by representatives of the Direccion de Nutricion in coordination with local field workers. (See p. 188 of Volume III for further implications and details.)

##### 2) Utilizing Media to Supplement and Extend the National Nutrition Education Training Program at All Levels:

a) Providing More Complex Materials for Professionals via Media: For example, work being done in the Research section of the Direccion de Nutricion could be brought via tapes, closed circuit TV, etc. to the Nutrition program at the University of Cauca. (See pp. 170ff, Volume III)

b) Use of media-presented materials for training sub- and para-professional nutrition education workers (in health centers, etc.) might follow the lines suggested on pp. 170ff of Volume III.

##### 3) Media Programs for General Audiences

Additional use of the broadcast media might be made in order to reinforce more detailed nutrition education activities and to increase the level of awareness of nutrition education on the part of general audiences. These would essentially follow the lines suggested on pp. 161ff of Volum III, although adaptations more specific to the Colombian situation might consider such tactics as incorporating a "multiplier" as a sympathetic character in a soap opera.

U.S.-COLOMBIA COOPERATION - "REAL MUTUAL ASSISTANCE":  
STRATEGIES FOR AID/COLOMBIAN WORKING RELATIONSHIPS

The U.S. and Colombia constitute a useful example of potential collaboration in the interests of both nations as well as other TDN's. Such collaboration could include experimental application of strategies for the mutual benefit of both nations, and joint activities in working with third parties.

There are several significant bases for such collaboration. Colombia is representative of the latter stages of a developing nation. There is an organizational structure within her government (Bienestar Familiar) that can provide the interdigitation of services and staff required to implement such a collaborative program and can be instructive to U.S. national and state governments. Another basis for collaboration is Colombia's excellent experimental work in rural areas, such as the work of extension agents in the coffee industry.

It would be worthwhile for the U.S. to develop a cooperative relationship with the Colombian government or with key Colombian agencies, around our desire and need to draw on "centers of strength" that have or could be located in Colombia. These "centers of strength" include the nutrition education capability in Dr. Paez' Institute and in Dr. Rojas' unit, including Dr. Cobos, whose research and development work is of the highest caliber. Unlike most aid programs, collaboration might be developed with the assistance of domestic American agencies, e.g. HEW or NASA, and be conducted in American as well as Colombian settings. SENA could also be used as a model whereby Americans could learn for applications in the United States.

Another benefit for the U.S. from such a cooperative program would be the ability to develop comprehensive communications programs to serve domestic needs - remote communications links to serve, for example, migrant workers, Alaskan Eskimos and remote Indian populations. Such programs could also offer a model to or might involve Canadian government agencies in their work with the much larger Indian population in Northern Canada.

It should be emphasized that this cooperative theme and search for "centers of strength" abroad that can be applied in the domestic American situation, has value both in terms of improving our relationship with the developing country and in terms of the relationship with the American people and Congress, who may begin to find evidence of profit for the United States in foreign aid programs.

13/10/20

INDONESIA

## OVERALL STRATEGY FOR INDONESIA\*

Strategies for the application of the communications media to the improvement of the quality of life in Indonesia are heavily determined by certain national characteristics and needs.

As a huge sprawling archipelago 3000 miles long, Indonesia is composed of an extremely heterogenous population from highly civilized ancient Sumatra and Java to neolithic cultures in West Irian and Kalimantan and stone-age groups in West Irian. It is multi-lingual, yet within this century it has taken huge strides in the acceptance and use of a single Indonesian language. Religion is equally diverse with large numbers of Moslems and sizeable Christian, Hindu and animist populations. Most people live in the countryside, but a number of large cities exist and a steadily widening stream of migration to the cities seems to defy the government's efforts to stem or reverse it.

Approximately 70% of the total national population is estimated to live in rural areas, but the distribution of population is by no means even among the islands. Java, with 7% of the land contains some 66% of the population. The various health, welfare and education programs are perhaps inevitably concentrated in the three most heavily populated islands of Java, Madura and Bali. The outer islands tend to have inhabited coasts and relatively impenetrable forested interiors, posing special broadcast transmission problems.

Such diversity of cultures and population distribution suggest the critical importance of an effective communication system to unify the nation, yet it poses an extremely difficult challenge to the communications and systems manager.

### Training Strategies

The Indonesians have been sensitive to the perhaps excessive role of foreign consultants in the management of Indonesian programs. This, and the lowering profile of U.S. involvement, suggest that training of Indonesian personnel is a high priority activity. This view is supported by the readiness and ability of Indonesians to learn and adapt American and European skills.

If this is a program of choice, then the site and the foci of training become prime policy decision points. It has been suggested in Volume II that a strategy for training professionals, scientists and administrators in their native land, in situ, should be considered. The reasons, including the inappropriateness of Western university behavior settings as sites for learning to solve TDN problems, seems to operate in this case. Another factor, the "brain drain", offers an equally compelling reason for providing for on-site education and training of Indonesians, both in the program areas and in the use of communications. A number of alternatives for

on-site training of higher level personnel within the TDN are discussed extensively in Volume II in the chapter on Training (p.103). These include:

- a visiting professor program in which the TDN is at once a laboratory for the demonstration and working out of communications, public health, educational, etc., problems, and the scene of actual strategy and program production;
- a visiting professors team strategy in which two or three professors work in a similar way with a seminar of TDN university students;
- an interdisciplinary, problem-solving format to be carried out within TDN universities.

The latter approach may be particularly appropriate in holistic Indonesian culture which nevertheless appears to suffer at the present time from a colonial-model, tightly departmentalized university structure which is not well suited either to the culture or to the program needs of the country in education and public health.

Training strategies for lower level personnel and field workers are also discussed in the same Volume II chapter. A full chapter in Volume II, "Training Field Workers In and Through Media Use", (p.51) is devoted to communications media strategies for field worker training. Both may be highly applicable to Indonesia. They include:

- A youth corps model in which young persons in the nation are dedicated during a period of national service to manifold educational and public health purposes of the TDN. The media provide the core of training and of the actual field program, thereby ensuring continuous training for corps members. Indonesia has started her own youth corps program (described later in this chapter) which might benefit by such a media training component.
- Strategies for using broadcast and smaller audiovisual technologies to furnish the basics in initial and ongoing training of field workers, as well as to provide the most important skeletal elements of the field programs for the target audience.

#### Consultation Strategies

Such training strategies for Indonesian personnel involve determination of appropriate consultation strategy alternatives. It will be necessary to learn the nature of the most acceptable types and sources of foreign aid. A key decision point for both AID and for Indonesia revolves around the nature of consultation

channels chosen: whether to work through appropriate international organizations, or private institutions (e.g. foundations, university-to-university programs), or agencies of the governments.

#### An Illustration of a Best Wedge Approach for Indonesia

To make optimal use of the broadcast media in the programs we are seeking to assist - family planning, nutrition education, and basic education - it may be useful to determine which of these if any may stimulate the greatest interest and response in the people, and in the decision makers who must approve and implement the programs.

Family planning, despite the need for such programs and strong government interest in them, is not a high priority program either in the government hierarchy or among the people. Indonesians are extremely fond of children, and they play a significant part in the economic plans and aspirations of the adults. This is especially true of agrarian people who must depend on their children to farm or work as they grow older. Education, on the other hand, is a high priority program, to the individual and to the nation. Via education the individual achieves higher status and/or income. Nutrition and public health as positive values seem to rank ahead of family planning.

It would therefore appear that the best points of entry may be education and nutrition, and that family planning programs should become associated with those higher valued areas. In relating to those who will implement the programs, a key policy decision point will be which other ministries and agencies in addition to those working on family planning, to involve - the Ministry of Information and Motivation, for example.

The association of good nutrition and family planning with the behavior of the educated individual, or those who will be eligible for education, forms the basis for a useful communications strategy. In addition, communications technologies themselves bring status to any health or informal education effort with their upper class and modern aura.

If we may accept the alternative of building programs very largely through education, it is necessary to resolve the possible conflict between the image of the modern educated Indonesian and the maintenance of a traditional life style. It is believed that this is not difficult in the actual setting, but it may be a problem in urban situations.

#### Models and Leaders for Innovative Media Programs

As a result of possible dissonance between modern and traditional images, and because of the extreme heterogeneity described above, credibility, identification and involvement require that very high status individuals such as political leaders and their wives, god figures and sports heroes be employed as models and endorsers of programs. However, the selection of such "heroes" requires care. Sheer position (e.g., the important politician's wife) will not guarantee the charisma which can overcome the barriers of diversity in Indonesia. Such personages need to be those who take a lead in making changes, who have the capacity to project themselves before the public, who have a certain flair which focusses

continuing interest on their activities and interests.

In addition, it may be fruitful to begin to build centers of support for new media programs among those who may profit from the changes achieved by the broadcast, viz. pharmacists who sell contraceptives, the teachers who benefit from positive orientation to education, the food vendors who can be informed of ways in which they benefit from improved nutrition patterns. In addition to self-interest, patriotism and responsibility and possible status can be used to elicit further cooperation from such gatekeepers. It also becomes even more necessary than usual to have the acceptance and involvement of such local gatekeepers as the local dukun, the midwives, the village head, etc., who are the ones who will interpret somewhat foreign materials as friendly, benign or malevolent. Therefore, any communications program must be very sensitive to the attitudes, values and vested interest of local political, religious and economic leaders.

The military, the Pertamina (national) oil company and the universities are powerful agents in Indonesian society whose help can be enlisted to produce, to sponsor or to support mass communications programs in the three subject areas. The military and Pertamina have already demonstrated their interest in public service programs in the nation, and the universities will be powerful centers from which to influence the elite reference groups of the nation in changing nutrition and family planning behavior.

### Modern Communications in Indonesia and Media Selection

Radio appears to be the medium of choice, especially for the highly imaginative Indonesian who enjoys mulling over and picturing for himself what is suggested by audio broadcast or the merely suggested figures visible in the Shadow Plays. Radio is lower in cost than television, it avoids differences in appearance, background scene and clothing. It delivers its signal over a wide area and reaches people in more different conditions, e.g., peddling a bicycle, in the kitchen or field, or at work. Transistor radios are inexpensive and can even be used as incentives for some of the family planning and educational programs, thereby compounding the effects. Television can be expected to spread only slowly as purchasing power increases.

In addition, radio is a well established Indonesian medium which has already been extended to informal education in the large cities. The point is worth emphasizing for two reasons;

- because the radio infrastructure is already well developed, offering an economically viable starting point for new programs;
- because the existing indigenous use of radio provides a culturally comfortable starting point for innovative efforts.

Culture shock is often the result of using relatively new media for new purposes in a TDN. Almost inevitably the programming will imitate foreign models, grossly neglecting links with the non-technological communications systems of the society. Programs may even be made up largely of inappropriate, translated foreign materials. The backlash, as well as the waste, of this type of effort can be severe-particularly in a nation like Indonesia where there is such mistrust of the potentially harmful effects of a Western "technological way of life".

In developing radio and smaller audiovisual technologies in educational and health programs, care must also be taken to assure that programs are responsive to national and individual need and that they are consistent with reality. Educational programs must prepare people for real jobs; family planning information must be followed up by a real worker or incentive payment for utilizing services. Each step forward by the audience must lead to an opportunity for another step, and these must be geared to real national growth and value.

The development of a communication industry will benefit and be benefitted by the development of such strategies. National decision-makers should ensure that at least a minimal capability does grow in the nation. To ensure that an archipelago-wide involvement be developed, rather than one restricted to Java and

Sumatra, the Communications Scouts strategy suggested for Zaire (see description in this volume under Zaire) is also recommended for Indonesia. This would increase youth involvement in communications through the several parts of the Republic, helping to build the sense of national unity while preparing needed communications personnel. Scouts in contact with other Communications Scouts in the Celebes, West Irian, Java, etc., would be taking an active part in national communications to supplement the passive listening to national and patriotic broadcasts.

The advent of a satellite in the next decade is highly probably, since thus far only a satellite can provide the transmission for a national television system for the Indonesian archipelago. Because of this, and also because of the perhaps vague, but nonetheless deep, sense of mistrust encountered in many educated Indonesians at the advent of such a powerful and unknown technology, it is important for the nation to begin now to plan for satellite use. Simulations in two or three places of various kinds of programming that would be transmitted by satellite - a full systems staging - would force attention to the development of appropriate software. The problems and potentials of heterogenous audiences, modularization, etc., would be worked out in advance of the advent of the technology. Evaluation, careful monitoring and feedback will be critical aspects. Effectiveness can be illusory: cheating on incentives is rampant. Rumors spread rapidly and change field conditions, and leaders frequently continue to operate on inaccurate or hopeful information.

#### Media Strategies Tailored to Indonesia Migration Problems and Policy

An Integrated Rural Strategy: Radio is clearly the best broadcast medium currently available for reaching the countryside through dramas. It can be used to bring stories that demonstrate the potential of the life in rural areas when an effort is made to improve rural life quality by:

- improved education leading to better agricultural methods and marketing skills;
- spacing of children to permit healthier mothers and children and better educated families;
- improved public health, assuring the benefits of smaller family size.

The new role of the government and social security can be dramatized to assure the understanding of the lessened need for large families. Opportunities in rural areas, or in new industrial or commercial areas (petroleum industry sites, new towns, etc.) can be offered to both rural and urban listeners. Sympathetically presented, either as

fiction or non-fiction, these dramas can lay the basis for acceptance of government efforts in education, family planning and nutrition education. Services, however, must reach the rural audience in close association with the broadcast lest the non-fulfillment of promises undermine the credibility of the programs. Links with the traditional social communications system is probably of unusual importance here: by referring people to local rural leaders, who probably are also opposed to migration, the cooperation of those leaders towards the goals of the program can be achieved.

Key policy decision points which required special consideration for this strategy are whether to broadcast on national (government) or local radio stations or a combination; whether to present dramas in Indonesian only, or also provide local language versions; whether or not to make special efforts to adapt dramas culturally to the various local regions.

A Rural Counterpart: For those who do migrate, the city offers many problems. Therefore, a communications program at the city end of the migratory trek may be a high priority to assist in accomodation and adjustment to the unfamiliar and often confusing living conditions of the cities. Jobs, housing, public health, marketing-plus-nutrition education, general educational and other information can be delivered via radio, or strategically placed public television receivers. Or centers can be set up for city neighborhoods on the model of those detailed in Volume III under "City Community Centers" (pp. 37-39). The broadcast and other media parts of the city community center in Indonesia should also publicize improvements in rural life opportunities at the same time that city skills are taught. An important policy decision point concerning this strategy is whether to maintain all-Indonesian broadcast and training, or to include native language components--especially concerning the rural opportunities in the effort to induce return migration to home villages.

#### Basic Education

Radio courses in foreign languages are already popular in Indonesia. Following this model, and emphasizing her superb resource of a common Asiatic language which is uniting the speakers of many different regional languages, broadcast literacy programs could be added for the undereducated segments of the population. In the process of teaching Indonesian via radio, basic education elements could be included such as number concepts...useful simple mechanical skills... the use of measuring tools... Both broadcast and small audiovisual technologies would provide the core curriculum on the model discussed in Volume III (pp. 32,33) for literacy centers, and/or following the strategy to reach the young domestic servants and others who cannot assemble at frequent regular intervals for classes (see Volume III, pp. 46,47). Modularized materials may be helpful if literacy curricula are developed in the capitol in order to permit adaptation to regional languages and customs before transmitting broadcasts to the diverse parts of the country. It should also be noted that literacy materials are an excellent channel for dispersal of family planning and nutrition education information.

Vocational education may be an especially appropriate area of focus in developing basic education media programs in Indonesia. Capable blue collar persons from urban areas could be sent as skill trainers for electricians, plumbers, oil field workers, etc., to appropriate rural areas. This strategy would take advantage of the current rise in status of technologically sophisticated blue collar work in Indonesia. These experts would simultaneously be part of new industrial development as that development spreads, and vocational trainers. They would be supported by media materials after an initial training period. The transfer of a SENA model from Colombia could be an alternative to this strategy: providing on-the-job education (literacy and basic education components) at factories. Similar strategies might be applied by the military in areas around military locations which require maintenance personnel of many kinds. Such vocational programs would have great potential for introducing family planning and nutrition education elements to the male population, as discussed in Volume III in the family planning and nutrition education chapters. Key policy decision points about the sectors of national life in which to introduce vocational training/basic education strategies will be strongly influenced by the relationships between the relevant ministries, the military and industry. Also, such programs will probably require the help of consultants and programmers outside the nation since the vocations involved are so new and so little represented in Indonesia.

Parent/Child centers, described in Volume III in the chapter on basic education, might be an appropriate broadcast-mediated strategy in Indonesian urban areas. However, the details of cultural fit, of adaptation of the strategy to the nation would require further study in the country.

### Family Planning

The family planning acceptance problem in Indonesia is complicated by a swift rumor system reporting any negative aspects, and by the reliance on establishing clinics to which it is hoped clients will come. There has been little follow-up and few outreach programs. Media strategies to help remedy this situation, detailed in Volume III, "Family Planning" include:

#### - Media in Outreach Programs

Mobile clinics, using small media, to travel from village to village and to go between islands by boat or plane (with assistance from military craft)

Postpartum approaches: these have had a small trial in a few hospitals with such success that radio programs to reach mothers who do not deliver in hospitals are recommended.

- **Media As a Tool in Working Via Existing Social Structures**  
Media to reach previously bypassed key gatekeepers to induce acceptance of family planning programs (village heads, dukuns, etc.) The strategy involves presenting leaders with tape recorders, cassette film projectors, etc., along with appropriate child-spacing materials.
  
- **Media to Train Field Workers and Managers**  
The gap to be filled is in upgrading the training of field workers to familiarize them with the goals and techniques of shifting emphasis from an exclusive one on initial adopters to new approaches: follow-up and dropout problems, coping with rumors, etc.
  
- **Small Media as a Crisis Intervention to Combat Rumors**  
The distribution of booklets, special slide shows, etc., may be needed on a flexible basis in different areas at different times to prevent negative rumors from having destructive effects on programs.
  
- **Field Worker Contests in Original Media Program Materials**  
This incentives program, which may include cash rewards or simply publicity for success, is designed to encourage the involvement of the field worker, and the indigenous development and use of technology in family planning programs. Further benefits include the consequent more thorough training of the worker in the use of the media.
  
- **Broadcast Media: Indirect Family Planning Approaches**  
Telenovellas, or radio dramas in which the spacing of children and consequent benefits to the family are an integral part of the program.  
Radio discussions - "musjawarah" or Indonesian discussion searching for consensus - would focus on family planning information, benefits, problems, etc. This culturally appropriate strategy could take into account rumor problems as well, and over time present a balanced picture of the potential of family planning practices.  
Shadow Plays as well as less traditional radio dramas may be able to incorporate family planning benefits as an integral part of the show. As discussed in Volume III, this strategy is somewhat controversial and more research is required.

### Nutrition Education

Indonesia is a rice-producing nation which at present is obliged to import the grain in order to feed her people. Some segments of the population live at such a subsistence level that education in the choice of appropriate foods may be unrealistic. However, there are other areas where the removal of certain food taboos (such as the prejudice against allowing pregnant women and small infants to eat eggs) would be most helpful. Also, media approaches to the elites of the nation who form the reference groups for the population at large are discussed.

Indirect media approaches, via both the urban radio dramas and the shadow plays enjoyed by the agrarian parts of the population, over time can help to change attitudes about nutritionally harmful taboos. Special emphasis on these points would be included in any programs geared specifically to women.

Small technologies, such as slide shows and short films could be shown at the various kinds of women's clubs, to be followed by discussions about food habits and the appropriate choice of foods.

In radio cooking programs, warnings can be made against investing in expensive foods (e.g., imported canned baby foods) when the family budget will not be able to provide enough for proper nourishment. Low-cost recipes for making similar foods can be emphasized as an alternative.

Literacy program materials can emphasize good nutritional habits, as mentioned above.

Training in good nutrition education can be extended to all health center workers on the multiplier model which has been developed by Colombia. (See Volume III, Colombia). In addition, media in the form of small technologies - nonverbal booklets, picture recipes, etc., can be used to help the current Pramuka Movement in which boy and girl scouts are trained to help villagers improve food production and consumption habits.

Such booklets and picture recipes can also be distributed through other programs and at any public health and educational centers.

Finally, industrial feeding programs can be the focus of an approach to the father of the family where essential notions about better nutrition and appetizing picture recipes can be made available to him to bring home.

Key policy decision points concerning these strategies have been detailed along with the discussion of the strategies in Volume III. All the strategies involved, however, will depend heavily on Indonesian policy decisions concerning the selection of media for these programs, the choices available concerning public or private agencies to work through, and the availability of local program talents and outside consultation and programming help.

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THE REPUBLIC  
OF ZAIRE

## THE REPUBLIC OF ZAIRE

Zaire offers an interesting problem in media selection. Certain conditions and needs operate within the country:

- it is a large country, with terrain ranging from high mountains to river deltas;
- there is a need for weather, market and aircraft communications;
- it needs internal government communications with remote areas of the nation;
- it must develop agribusiness and industry;
- it must contend with the declining trade balance on the price of copper;
- there is presently a slow GNP growth rate;
- there are presently few adequate transport facilities;
- it needs labor-intensive approaches to development programs;
- there is a need for formal and informal educational networks to reach remote sections of the country;
- it has the objective of unifying the nation, overcoming tribal and linguistic separateness;
- it is faced with a choice among French, English and major tribal languages;
- there are insufficient hardware facilities to support a communications system;
- no adequate infrastructure exists at the present time to support a communications system;
- there are inadequate training facilities to develop the needed infrastructure.

The educational process, both formal and informal, is central to the development of the Republic of Zaire. It cannot be treated independently of other investment costs, nor can it function apart from the

industrial, agricultural, manpower needs, social and human development aspects of the society and its major demographic characteristics. Methods for assuring that planning to this end takes place, must be provided, before meaningful educational objectives can be established. There is a need for a sequenced series of steps leading from an understanding of the needs of the nation to the development of educational reform and construction.

These steps should involve the development of a communications and educational technology capability that will facilitate the development of formal and informal education, as well as education in nutrition and maternal and child health (and ultimately in planning families), in order to help deal with the shortage of trained personnel.

Rather than offer recommendations for a single specific program, we have been responsive to the evident desire of the Zairian government and people to make the necessary decisions and to implement the programs in their own manner. We therefore offer a pattern of options and alternatives. The decision-maker can choose among these, employing his own criteria of nature, program, scope, quantity and timing. The implications of many of the alternatives are discussed, including the requirements that must be fulfilled if the alternative is selected.

This overall approach is in itself demanding. It requires that the policy workers and the decision-makers:

1. obtain and maintain a sound and comprehensive baseline estimate of the needs of the nation and of education;
2. maintain an inventory of possible solutions to these problems and needs. That this inventory be prepared in a manner that maintains awareness of:
  - a. the effects of any alternative choice on the system and the people who are part of it;
  - b. an understanding of the financial, human, and sometimes political costs of any decision;
  - c. the effects of any choice on the other alternatives and on one's degrees of freedom under the now changed circumstances.

The relevant alternative decision points include a choice of media, educational method, administrative style, etc.

Several observations and recommendations are pertinent:

1. the advantage of lower risk, lower cost media like radio;
2. the advantage of beginning with pilot "growth centers" wherein experimentation and training can be carried on;
3. the significance of the development of an adequate support system including:
  - a. necessary level of technological infrastructure;
  - b. attention to dissemination of supporting educational materials, including non-broadcast, small technologies;
4. the value of a national communications development capability that is:
  - a. composed of the necessary mix of required professionals;
  - b. engaged in development activity;
  - c. exposed to significant feedback;
  - d. sufficiently pragmatic in its approach;
  - e. provides a behavior setting that encourages problem solving and creativity;
  - f. has necessary political support and interministerial cooperation;
  - g. is geared to the needs of the economy and society.

Consultation Strategy Considerations suggest at least two of the following:

1. an extended consultation visit by a capable, broadly sensitive and imaginative educational planner to work closely with the Minister of Education, the Minister of Information, and other relevant government leaders;
2. a meeting, preferably in Zaire, of a small group of specialists who can confer for three to five days with the leaders of Zairian education to discuss needs, alternatives, their implications and effects;

3. a high level meeting of Zairian decision-makers directed to practical and feasible decisions regarding:

- a. the objectives of Zairian education;
- b. initial broad direction and character of the program to fulfill these objectives;
- c. machinery for continuing problem solving, planning and feedback of progress.

Some policy decisions concerning consultation have recently been taken by the Government of Zaire indicating an interest in multilateral, team consultation through UNESCO. In other cases, the government has chosen to work directly through AID. The appropriate mix of consultants for informal education and public health media programs may be strongly influenced by the need for French speaking foreign consultants.

Given these conditions and needs, one component strategy of media system selection might be to develop radio for wide use at the present time, with TV development as a maturational outgrowth of radio, for wider use later, perhaps when satellite transmission is available. The implications of such a strategy, which allows development of a wide communications net over time, while satisfying immediate national needs and priorities with the best developed media system presently available, would include:

- the immediate transmission and most rapid delivery of an already operating system to the widest audience and learning population;
- a cost-effective development program, in that radio would 1) be a less expensive basis for developing skills and infrastructure through the spread of radio technology and the wide spread of the programs to be transmitted; 2) be a lower hardware and programming cost now while serving long-term development needs. Heavy investment in TV equipment and programming at this time would exhaust available funds while reaching only limited audiences.
- the service of internal communications needs of the Ministries of Education, Information, Agriculture and Transportation;
- simultaneous R&D to develop and satisfy the needs of both radio and TV (not one at the expense of the other), providing an ultimate TV communications resource which will be 1) widespread and 2) have developed as a Zairian TV system.

A second component strategy of communications media system development in Zaire might be the establishment of Communications Growth Centers. These "centers of excellence" would promote the planful development of TV as an outgrowth of radio, and would have a gradual development pattern as adequate facilities and personnel become available. Since most resources in the communications area are fragmented at the present moment, these centers would aid in building the nation's skills and in developing Zairian personnel, materials and methods at all levels of the communications system. This strategy could be implemented in two ways: 1) centers could be planned in relation to existing communications centers (such as Bunia, Star and Telestar) and 2) they can be planned in terms of new modes of educational communications development.

A key decision point here involves internal political considerations about emphasizing government versus private communications centers. The availability of skilled manpower for programming, and of hardware resources, as well as national budgetary considerations must, of course, be taken into account.

Another example of a new communications growth center might be the expansion of the Foyer model fully described in Volume III under Basic Education. The Foyers are well established in urban areas of Zaire, and include nursery or kindergarten for children and informal classes for women in home arts skills, etiquette, French and typing. Combined with media, the Foyer could be expanded in its existing form, with specific emphasis on basic education for little children and mothers. In addition, since the neediest women seem to have the least contact, Foyer centers could be expanded into the slum areas of the cities and upgraded in rural areas. Radio broadcasts into the center could help to train staff and field workers in core curriculum elements, such as conversational French or "counting" songs for children.

Also, a "Foyer of the Air" could supplement the outreach of the center by reaching those who have no access to it. Although the material would have to be more limited without classes and field workers, the Foyer of the Air may be more appealing as mothers are instructed about improved nutrition, basic skills and certain home arts.

The concept of the Foyer has a number of important implications for the development of Zaire:

- it is sensitive to the priority of building national and cultural unity;
- it is based on a Zairian institutional model, with a particular Zairian flavor;
- it has Zairian leaders and therefore personal models;
- the unity-of-the-family approach engendered by the Foyer is important to the Zairian sense of tribal, family and personal orientation;
- it becomes a transmission belt for the new (e.g., basic education) while at the same time continuing to preserve the old (e.g., the Zairian family sense), transmitted in a particularly Zairian style;
- it would serve an immediate need for instruction in basic skills (both adult and child), nutrition and home improvement while being a potential center for establishing family planning programs and for nurturing new societal roles, skills and careers for women in the future.

The "media-alone" approach of a Foyer of the Air may be a particularly suitable policy decision in Zaire. This media strategy

lengthens the reach of a successful, culturally appropriate program in a limited way, pending the development of more Foyer centers in rural and the poorer urban areas. At the same time, the national interest in promoting a feeling of unity throughout the country is fostered as an increasing proportion of the population realizes that it is enjoying the benefits of a high-priority and well established national program.

Other new modes of educational communications development might be:

- A National Comprehensive Government Broadcast Communications System through 1) National Radio Program, with a core program of civic education (combined with basic education and nutrition), supplemented by localized segments designed for a heterogeneous population (tapping local languages, food, dress, and local needs and goals);
  - 2) Popular Education Programs, which already exist and could add basic educational materials to their civic education format;
  - 3) Men's Clubs, centering on literacy, mechanics, the history of Zaire, sports, etc. with a radio broadcast of core material to a centrally located center.

Key policy decision points arising in relation to such a comprehensive strategy are diverse. Choice of foreign or international assisting agencies, the option of long-term institution building rather than relying solely on a series of crash programs, decisions about working through public or private Zairian agencies or both, determination of working relationships among the various relevant ministries - all will be involved. A pivotal programming decision point will be the extent to which the clubs, radio courses, and radio programs integrate education and public health. The subject areas for prime emphasis in each can probably best be determined in terms of the needs and motivations of the particular audiences to be reached for the various kinds of broadcasts, and in the various parts of the nation.

A third component strategy would be that of developing alternative video formats for use with radio frequencies, which would give radio a fuller potential. There are a number of alternative media and communications methods such as "radiovision", a slow scan system at much lower cost and longer range than television, which may also better fit the cognitive style of the Zairian people. The use of an alternative would utilize the existing media cost-effectively, while developing manpower and materials for a more complex system later.

The fourth component of media systems development might be the development of software at the same pace or ahead of hardware and more effectively related to it. In doing so, programmers could

reach to other settings for selected training in skills needed, such as non-verbal communication (Indonesia, U.S.), early childhood education (France, U.S.), etc., in addition to training in the techniques of working with the hardware itself. Such a strategy has the implications of: 1) building up an infrastructure sensitive to the characteristics, not only of the media but of the tasks the media is assigned to perform, the behavioral principles governing the messages of the media, and the culture and cognitive style of the audience; 2) building a programming infrastructure that, because of these sensitivities, may avoid the costly errors or educational programming that occur when haphazard or lopsided planning takes place.

This strategy can be implemented through the development of Growth Centers, through an eventual Communications Institute of Zaire (see Colombia recommendations), and/or a National Laboratory for Educational Communications. Since all three institutions will be concerned with the training of technically competent personnel, the concomitant research and development of software and training of personnel to develop it would seem a natural and essential function.

The National Laboratory for Educational Communications would be a central institute located at the combined National University with its various campuses (Kinshasa, Lumumbashi, Kisangani). It would begin to build a centralized research and development process uniting the scarce research capability and the energies of the nation. It would help Ministries of Information, Education, Agriculture, Social Welfare, Industrial Development.

At the Laboratory level first, then through pilot operations, education programs would be developed bridging the psychological and sociological processes that produce motivation, learning, the application of skills, and problem solving. These programs must become a unique blend of what may be universal educational techniques with the culture of Zaire, and built upon the capabilities and potential of Zaire (e.g., verbal and poetic skills as a basis for communications).

The Laboratory would be center for research in child and social development in particular, and responsive to new problems arising from the Laboratory's need assessment of the nation's education.

Implications of a strategy such as the National Laboratory for Educational Communications would be:

- tapping the Zairian sensitivity to the human aspects of development and education;
- the building of a centralized process of, and mechanism for, development;
- the design and trial of pilot programs and the research in education, psychology and sociology, which will create a uniquely Zairian approach to such processes as motivation, learning, application of skills and problem solving;
- a particular blending of what may be universally educational techniques, but consistent with the culture of Zaire, built upon Zairian capabilities and potential;
- the development of center for research, not only in communications, but in child and social development;
- the development of a body of research about the Zairian and African people - and thereby software approaches that would be most effective in media programs;
- the development of an educational, psychological, anthropological infrastructure.

A key decision point emerging from the strategy of establishing a National Laboratory or Communications Institute concerns the level of initial effort:

- kinds of media to begin to work with
- extent of initial need assessment research
- relationship between the Institute and the National University as well as with Telestar.

The availability of talent within the National University of Zaire, including expertise in anthropological, sociological and psychological research needed for need assessment research are relevant factors. As the research center develops over time, decision points will arise concerning extending the loci of the center - perhaps to some or all National University campuses, for instance - and concerning choices about training high level personnel within the nation or abroad. The latter point is discussed and a number of alternatives offered in the chapter on Indonesia in this volume, as well as in Volume II in the section on training (p. 103).

The relationship to Telestar will depend on the direction and pace of development of that agency as well as the extent to which the Laboratory or Institute becomes involved in production of materials. There is a clear basis for relationship between the two functions.

A fifth component of communications media systems development may be to develop new, culturally relevant and viable special/educational institutions for the development of a technological infrastructure. Such institutions would serve a number of purposes: in addition to training for technically skilled personnel, they could indirectly provide instruction in basic skills and perhaps other areas, while encouraging national cooperation and pride.

One illustration of such a strategy would be the development of a communications scouting system of Zaire (a Boy Scouts of Communication), which would encourage the learning of a spectrum of communications and related skills. Such a strategy builds on the existing positive characteristics of the nation:

- since Zaire has until very recently been based on a tribal community, both parents and teenagers having an intense need for group or clan experiences would be able to satisfy it through their activities with the scout troop;
- on the other hand, since the scout system has a style of organization which, while being competitive in encouraging individual or group achievement, is also highly cooperative in that boys are encouraged to work together in a constructive manner, it is thereby one method of satisfying a national priority for unity;
- the communications scout, through the fact that the nature of the activity is that of making radio contact with another, is further reinforced in cooperative behavior, since it is the nature of radio that there must be two ends to the dialogue that establishes communications.

The role of such a system from the national point of view would be a very useful one in that:

- it would contribute to the eventual technological infrastructure that is needed in electronics and communications;
- on a more immediate scale it would provide a resource to the nation for communications in the event of crisis;
- in the more remote areas it would perhaps even provide a cadre of teenagers who could operate the radio system for a small school or school system that does not have other technicians available;
- it would provide through informal education but with a qualifying examination a group of Eagle Scouts who might be qualified for university level education in communications.

The scouting system would be valuable for the Zaire schools in that it would:

- encourage a greater investment and commitment to education and the school system, especially if the scouts were audio-visual technicians for their schools or school systems;
- demonstrate to the school and students the value of student participation and cooperation in behalf of the school;
- provide a relatively low-cost, labor intensive solution to much of the communications service problem of Zairian development.

For the scouting youths, and therefore for the nation's future, there are a number of implications:

- it would provide some basic education for participants from the time they were "cubs", in that they begin to learn with media in a "hands-on" way;
- it would provide for the practical use of numbers and spatial concepts, the development of simple physical principles such as leverage and resonance, and later the more sophisticated understanding of physics and mathematics as well as simple elements of chemistry, metallurgy, and ultimately for advanced learners, high energy physics, geophysics and other advanced theoretical subjects;
- as the dialogue procedure of ham radio activity increases, interaction with others becomes an important part of the process and thereby gives scouts more experience with and encourages interest in other parts of Zaire and then other parts of the world;
- ultimately there might be a branching and convergence of two kinds of educational experience: 1) the hard technology experience and 2) that derived from communication with other human beings and cooperation in the performance of projects and tasks.

Implications for the economic future and social structure of the nation might be projected:

- as new industry develops in Zaire, there will be a high reward for those with electronics and communications capability;
- there would be an infrastructure of persons with a trained capacity for working together, for having a broad understanding of communications, with a national outlook;

- skills learned in the communications scouting program can be generalized to other fields with high potential in Zaire, such as hydroelectric and transportation industries, as well as social science and journalism;
- while the introduction of such skills may make some youngsters dissatisfied with semi-skilled or remote rural agricultural activity, there is also the possibility that many of them will establish sound positions of value and worth to the communities in remote areas, and be willing to forego city white collar jobs for the more prominent positions in remote areas.

Other strategies or approaches have been described in Volume III. These include:

Basic Education through the National Language: Zaire is in need of a common language with the ability to unite and motivate its people. Many people, especially in the rural areas, speak their tribal language on arrival at school and are taught French before they can proceed with much formal education. This may contribute to the high drop-out rate (2, 3 years). Most rural people have a smattering of French, some simple arithmetic and a little ability to write. Therefore:

- the teaching of French should be heavily infused with elements of basic education;
- the broadcast media - radio, television where available - as well as the smaller technologies (single concept films, tapes, etc.) should be employed to upgrade the quality of teaching in the primary grades as a way of:
  - a) saturating that period with new skills;
  - b) retaining a larger number of learners.

In addition, each setting in which French or any other national language is taught (via radio, adult classes, etc.) lessons should be saturated with other learning experiences, e.g., categories, sorting, planning, etc.

A number of labor intensive approaches are described in the section on Basic Education in Volume III. These are designed to take advantage of the capacity of the communications media to prepare and maintain large numbers of now unskilled persons who might be trained as field workers.

Among such labor intensive approaches might be:

Teacher Aide Corps: There would be school drop-outs who could be trained as education aides. These "near-peers" would be of assistance in teaching pre-school and primary grade children in a more individualized manner. In the process, the thinking skills and knowledge of the "near-peer" improve rapidly.

Rural Life Workers: Field workers trained for integrated education/nutrition family life programs. Radio (possibly two-way) would be an invaluable tool for the continuing education and training of such workers, as well as a method for maintaining administrative and other program communication. Close relationship with agricultural extension and public health departments is in order.

Family Planning programs are practically non-existent at this time in Zaire. No infrastructure exists and little public awareness. This is discussed in the section (Volume III) on family planning in Zaire. However, the possibility of a change in public policy does exist. Should this take place, there will still be a shortage of personnel to take up the task for Public Health, and education people are scarce in Zaire. The communications media and the smaller technologies may be given the task of alerting those in need to the availability of the service as well as training the lower level of workers and aides for the program.

A number of strategies have been described that may be implemented on the basis of the national policy:

- a. integration of family planning education into extension education;
- b. integrate family planning into rural life extension programs with communications assistance;
- c. integrate family planning into the Foyers and supplement with a "Foyer of the Air;"
- d. use the communications and AV media in post-partum programs;
- e. use the media in MCH and other public health clinics and programs.

These and other strategies are developed in the Volume III section on Family Planning, and in the general presentation in Volume III.

What begins to emerge, then, is a communications net and system designed to serve the Zairian situation at the present time, yet geared to change for the future. It becomes evident that the media selection or prescriptive process dovetails with the process of developing a national program strategy; whether beginning with prescriptions of program or prescriptions for media, a full system will consider all aspects and implications of program, media, and specific country. Such a communications program in Zaire, then, would have a number of implications for the present and future of the nation:

- it would assist in the internal communications and organization of the national Ministries;
- there would be a basic standardization of materials and information thereby furthering the unification of Zaire today;
- it would develop a communications infrastructure through interest in and stimulation of work with communications materials;
- it would have great effects on individual development and the ego through a system which encourages the employment of Zairian cognitive process and cognitive skills in education, etc.
- it would tie the nation together through communication and the reinforcement of cooperation and national pride, giving psychological unity;
- it has the projected ability to allow Zaire to export its communications and related expertise to nearby or similarly developing countries;
- it will give assistance to local industry and agriculture, and therefore the economy, through 1) the development of small clean electronics industry and 2) its educational broadcast programs;
- it will aid in the development of transport systems, as a precursor, a motivator and as a related training area for many aspects of the transport infrastructure;
- such a planned system would fully utilize the resources, both material and human, of Zaire while building a stable potential in communications, industry and agriculture.

Thus a full system would emerge, having taken into account the needs and conditions of the country and its people, the program possibilities and needs, merged with the capabilities of certain hardware systems; the system fulfills present, immediate needs while allowing for the future development of the nation. While all of the component strategies mentioned need not be implemented, and while they have alternatives, they are nevertheless functioning parts of a system whole, designed to create a unity of all aspects of the media prescription.

**SECTION C: SOURCE COMPILATION**

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\*Consultants seen in Washington ("Consultants") and those contacted during the domestic and foreign site visits are listed with their names, titles, and organizations. In addition, the subject area of their input to this project is indicated in an overall way according to the following code:

- Ag - Agriculture
- B - Basic Education
- Cm - Communications
- Cp - Consulting Process
- MCH- Maternal/Child Health
- N - Nutrition
- FPl- Family Planning
- PH - Public Health

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Radio-Visual Services Division

UN

(Cm)

Mr. Michael Heyn

Project Assistant

Program Division

United Nations Development Program

Mr. Lloyd Mason

Project Officer

Program Division

United Nations Development Program

Professor Alexander Szalai

Deputy Director for Research

UNITAR

San Antonio, Texas

Texas University

Dr. and Mrs. (Dr.) Rene Ahumada

Visiting Professors, School of Medicine

(Community Mental Health, Comparative Education - cognitive studies)

Washington, D.C.

Governmental Affairs Institute  
Population Services  
(Seminar: William Sweeney and Hiram Phillips, Speakers)  
(FP1)

National Academy of Sciences  
Mr. Jay J. Davenport  
Professional Associate  
Office of the Foreign Secretary  
(B, Latin America)

Dr. LeRoy Vorhis  
Executive Secretary  
Food & Nutrition Board  
(N)

Dr. James Zavitosky  
Professional Associate  
Office of the Foreign Secretary  
(B, Latin America)

NICHD

\* Dr. Sidney Newman  
Behavioral Scientist Administrator  
Center for Population Research  
(FP1)

Office of Economic Opportunity  
Mrs. Joy Frechtling  
Specialist, Parent/Child Center Program  
Office of Research  
(B)

Mrs. Mary Robinson  
Compensatory Education  
Office of Experimental Research  
(B)

Pan American Health Organization  
Dr. Roberto Rueda-Williamson  
Nutritional Regional Advisor  
(N, MCH, Colombia, Latin America)

UNICEF Information Service  
Mrs. Ann Gray  
Director  
(N, MCH)

\* Multiple Visits

U.S. Department of Agriculture  
Dr. Joseph Matthews  
Assistant Administrator  
International Office of Extension  
(Ag, Cm)

Miss Helen Strow  
Extension Specialist  
International Office of Extension  
(N, MCH)

U.S. Department of Labor  
Miss Helen Bjorklund  
Dr. Stephanie K. Hoyt  
Dr. Charles Nolley  
Dr. Bette C. Soldwell  
Job Corps Central Office  
(B)

Mr. Judah Drob  
Chief  
Division of Research and Development Utilization  
Manpower Administration  
(B)

World Bank  
Dr. Duncan Ballantine  
Director  
Educational Projects

Dr. Zaidan  
Population Projects Officer  
(FP1, CP)

Site Visits Addenda

A. FOREIGN

March 1 - March 19, 1971: UNESCO Paris and the Congo

The Congo

Mr. Max Egly  
Television Scolaire du Niger  
(B, Cm, Niger)

B. DOMESTIC

Berkeley, California

University of California at Berkeley

Mr. Maman Abdurrachman  
Djurusan Geografi  
F.K.I.S. - I.K.I.P.  
Bandung  
(CP, Indonesia)

Dr. Joseph Fischer  
Professor of Sociology  
Institute of International Studies  
Center for South and Southeast Asia Studies  
(CP, Indonesia)

Mr. Saifullah Mahjudin  
Fakultas Sosial and Politik  
Universitas Gadjah Mada  
Jogjakarta  
(CP, Indonesia)

Mr. Djeni Marsinih  
Fakultas Ekonomi  
Universitas Andalas Padang  
Djalan Djati 77  
Padang, Indonesia  
(CP, Indonesia)

Mr. Max H. Waney  
F.K.I.S. - I.K.I.P. Manado  
Kampus Kleak  
Manado, North Sulawesi  
Indonesia  
(CP, Indonesia)

Honolulu, Hawaii

East-West Center

Mr. K. Adamsom  
Economist  
Population Institute  
(FP1)

Dr. R.W. Armstrong  
Food Institute  
(N)

Dr. James E. Banta  
Public Health  
Population Institute  
(FP1, PH)

Dr. John Bystrom  
Communications Institute  
(Cm)

Mr. Alan B. Chalkley  
Senior Publications Officer  
Population Institute  
(FP1)

Dr. Lee-Jay Cho  
Associate Professor of Sociology  
Population Institute  
(FP1)

Dr. Paul Demeny  
Director  
Population Institute  
(FP1)

Dr. Huber Ellingsworth  
Senior Fellow  
Communications Institute  
(Cm)

Mrs. E.S. Purnaman Pandi, M.D., M.P.H.  
Head, Medical Service Division  
National Family Planning Coordinating Board  
Djakarta, Indonesia  
(visiting participant in population seminar  
held at the East-West Center)  
(FP1, Indonesia)

Dr. R. Michael Pearce  
Associate Director  
Technology and Development Institute  
(Cm, Indonesia)

Dr. Florangel Z. Rosario  
Assistant Professor of Speech Communication  
Population Institute  
(FPI)

Mr. Saegeng Waloejo  
Provincial Family Planning Coordinating Body  
Bali, Indonesia  
(visiting participant in population seminar  
held at the East-West Center)  
(FPI, Indonesia)

Dr. Dale Webster  
Director  
Communications Institute  
(CI)

Dr. Robert Worrall  
Communications Institute  
(CI)

University of Hawaii  
Dr. Guy Kirkendall  
Director  
International Programs  
(CI, Indonesia)

Dr. Edward Ryder  
Chairman, Speech and Communications Department  
Chairman, University-wide Communications Committee  
(CI)

Hawaii State Government  
Dr. George Kanahole  
Administrator  
Hawaii International Services Agency  
State of Hawaii Department of Planning and  
Economic Development  
(CP, Indonesia)

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