

# audience research 

# for improving family planning communication programs 

JANE T. BERTRAND

Media Monograph 7

Communication Laboratory Community and Family Study Center University of Chicago

## THE MEDIA MONOGRAFH SERIES

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Jane T. Bertrand

## Chapter One

## AUDIENCE RESEARCH AND THE SYSTEMATIC APPROACH TO I-E-C FOR FAMILY PLANNING

The family planning movement is well out of its infancy. Most countries in the developing world have had a family planning program for more than a decade, ${ }^{1}$ and many are beginning to see the results of their efforts. ${ }^{2}$ Indeed, much useful knowledge has been accumulated-often through trial and error-about the running of an effective family planning program. For example, the delivery of services through clinics is gradually being supplemented by more accessible commercial and community-based distribution systems. ${ }^{3}$ Cumbersome statistical record systems are being replaced by simplified means of data collection with emphasis on truly useful statistics. ${ }^{4}$ Techniques of voluntary surgical contraception for both men and women have been improved and simplified, making permanent solutions to fertility control more accessible to couples all over the world.

Just as there have been improvements in the delivery of services, so too has there been an evolution in information-education-communication (I-E-C) programs for family planning. In contrast to the carly days when family planning communication was often an ad hoc process of hastily designing a pamphlet, poster, or radio spot, today there is a much greater tendency to develop an $I-E-C$ strategy for reaching the target population. ${ }^{5}$ The audience is no longer considered as a homogeneous whole, but rather as a series of subgroups each requiring specialized messages directed to its specific interests. The endless repetition of the "small-family-happy-family" theme has been replaced by a much broader motivational appeal, based on such elements as family finances, women's rights, infant health, environmental protection, and also specific motivational appeals regarding the convenience and safety of the methods themselves.

An integral part of this evolution in I-E.C for family planning has been the increased use of a systematic or research-based approach to communication. This approach, diagrammed in Figure 1-1, allows the communicator to design, implement, and evaluate an I-E-C program on the basis of concrete, objective information about the target population rather than on speculation and hunch. Three types of research useful to I-E-C programs include:

1. Audience Research-- to be carried out before designing a new I-E-C program or a new round of communications. Its purpose (specified in greater detail in Chapter Two) is to define appropriate content, identify subaudiences, detect obstacles, and determine potentially effective channels of communication. (Audience research is sometimes referred to as "diagnostic research," in that it attempts to "diagnose" the current family planning situation, including existing obstacles, and to prescribe strategies for making I-E-C efforts more effective.)
2. Pretesting*--to be performed after preliminary message desizn and before final production and diffusion. Its purpose is to determine the extent to which the intended audience understands and accepts the messages. Pretesting helps eliminate an ineffective communication before large amounts of money are invested in its production and diffusion.
3. Evalution-- to be conducted at a certain period after the communication is in the field. This period can range from a few weeks after the onset of the program (to obtain feedback on how it is being received) to a year or longer afterwards (to monitor its effect over time). Its purpose is to measure the effect of the 1-E-C program on the target audience in terms of changes in knowledge, attitudes, and practice. It can also be used to obtain feedback on the program itself regarding the reach of distinct communications, the audience reaction to these messages, the relative impact of different messages or spots, or subgroups within the larger population who have been reached to a lesser extent than others.

The purpose of this manual is to describe how to carry out audience research, analyze the results, and incorporate them into an I-E-C program for family planning. Readers interested in knowing more about pretesting are re-

[^0]

Figure 1-1. Research-Based Approach to I-E-C for Family Planning: Steps in the Process.
ferred to a similar manual written by this author, Communications Pretesting (Chicago: Community and Family Study Center, Tiee University of Chicago, 1978). The third volume in this series on evaluation of communication programs is scheduled for publication at a later date.

## Notes

> ${ }^{1}$ Nortman, Dorothy L. and Ellen Hofstatter. Population and Family Planning Programs (New York: The Population Cour.cil, 1978).
> ${ }^{\mathbf{2}}$ Tsui, Amy O. and Donald J. Bogue. "Declining World Fertility: Trends, Causes, Implications." Population Bulletin 33, Number 4, October, 1978.

${ }^{3}$ Foreit, James R., Martin E. Gorosh, Duff G. Gillespie, and C. Gary Merritt. "Community-Based and Commercial Contraceptive Distribution: An Inventory and Appraisal." Population Reports, Series J, Number 19 (1978).
${ }^{4}$ Elkins, Henry and Olivia Schieffelin Nordberg. "Service Statistics: Aid to
More Effective Family Planning Program Management." Population Reports,
Series J, Number 17 (1977).
${ }^{5}$ Rogers, Everet! M. Communication Strategies for Family Planning (New York: Free Press, 1973), p. 94.

## Chapter Two

## THE PURPOSE OF AUDIENCE RESEARCH

The chief goal of family planning organizations is to improve the well-being of the family by providing a means to avoid unwanted pregnancies. It is well documented that excessive childbearing is detrimental to the health of the mother, especially in areas where nutritional standards are low. The birth of each additional child can further strain the limited resources of the family, with the result that the family has increasing difficulty providing the basic necessities for each child.

Whatever the type of family planning organization-governmental or private, "integrated" with other health services or "vertical" (in which the sole purpose is family planning)-the major objectives are first to inform and educate the population about family planning, and second, to make contraceptives readily available to as large a sector of the target population as possible. The result of the goals being reached is generally referred to as increased contraceptive use.

In countries where family planning programs are just starting, their efforts nay be initially directed toward women with high-risk pregnancies only. However, in the majority of countries, family planning is promoted for the humanistic reason of improving the health and well-being of the family. In those countries where demographic pressures are exacerbated, family planning is advocated for nationalistic reasons as well. In short, one major objective of most family planning organizations is to increase the number of couples who use family planning.

Consequently, the purpose of audience research is to aid in developing an I-E-C strategy for increasing voluntary contraceptive use. Theoretically, "audience research" could be applied to any of the distinct subaudiences for family planning:
(a) Active reproducers (generally considered to be men and women 15 to 45 years old)
(b) Leadership "controllers" who set local policy and influence opinion
(c) "On-coming reproducers" (young people in and out of schools)
(d) Personnel responsible for providing family planning information and services
(e) The public at large.

However, the major portion of I-E-C efforts in most family planning organizations is directed toward the audience of active reproducers; therefore, this manual deals with audience research in the context of active reproducers.* Specifically, it is important for audience research involving individuals of reproductive age to:

1. Assess the current family planning situation, not only in terms of use, but also in terns of knowledge and attitudes, beliefs, motives, values about family size and spacing, and the methods of contraceptives.
2. Identify factors that influence the acceptance or rejection of family planning within the given population, since these data will serve as a basis for the I-E-C strategy, especially in terms of content.
3. Identify the most effective channels of mass and interpersonal communication; determine the media habits and preferences of the target andience, as well as channels of interpersonal communication-information which will serve as a basis for logistic decisions regarding the diffusion of information.

Audience research combines elements from several different types of research, and yields a unique collection of information that is useful in designing an I-E-C strategy. Readers familiar with the World Fertility Study and contraceptive prevalence studies will recognize certain elements regarding reproductive behavior and contraceptive use. Those familiar with market research will note similarities in terms of detecting current use patterns as well as media habits and preferences. However, relatively little previous work has been done on combining these different approaches in order to provide a tool for improving family planning 1-E-C.

The rationale for obtaining the three types of information is as follows.

## 1. Assess the current family planning situation

In this first aspect, audience research is similar to (though more sophisticated than) the knowledge-attitude-practice (K-A-P) surveys of the 1960s and early 1970s. Many of the items included in the questionnaire contained in this manual were originally used in K-A.P surveys in different parts of the world. The difference between K-A-P surveys and audience research is that

[^1]audience research goes far beyond K-A-P surveys in determining the reasons for lack of contraceptive use and in identifying effective means of reaching the target population in an attempt to counter these barriers.

In comparison to K-A.P research, which was of ten considered academic in nature, audience research is much more dynamic in that it exists to be used. The questions (variables) to be included are selected on the basis of their usefulness in developing an I-E-C strategy for increasing contraceptive use. (It should be emphasized that this practical approach also yields new insights on a number of theoretical, academic questions.)

## 2. Identify factors that influence acceptance of family planning

This second objective represents the most challenging aspect of audience research, since the situation is often complex. According to other literature on family planning, three sets of factors (see Figure 2-1) can be shown to explain attitudes and use of family planning, as follows:
A. Sociodemographic variables. It is widely ducumented that acceptance of family planning is greater among those with a higher standard of living. Indicators of socioeconomic status include educational achievement, family income, and occupational status, as well as type of housing, nutritional intake (in developing countries), and other indirect measures of income.

Certain demographic variables also predict fanily planning acceptance in some countries. For example, in most developing countries, contraceptive use


Figure 2-1. Three Major Factors Affecting the Acceptanse of Family Planning.
is higher among women in their late 20 s and 30 s who have already had three or more children.

Finally, other social factors such as racial (or ethnic) group and religious sect have been documented as influencing this process in a number of different countries.
B. Social psychological variables. It is widely acknowledged that certain attitudes and beliefs of the target po, ulation (often based on supposition or rumor) are key to the acceptance oi family planning. While the list of possible attitudes representing barriers to family planning is long (see Donald J. Bogue's Twenty-five Communication Obstacles to the Success of Family Planning Programs ${ }^{1}$ ), not all attitudes exist with equal intensity in a given country. Indeed, audience research attempts to identify those attitudes and beliefs which prevail among a given target group and the relative importance of each for family planning adoption.

It should be stressed that audience research can be valuable in initially detecting and then countering particular rumors about family planning methods or services. Specific questions regarding methods and services can be included in the questionnaire (or in a highly condensed questionnaire if there is interest in performing a quick survey) that can indicate the nature of prevailing rumors or attitudes affecting family planning acceptance.
C. Factors related io service delivery. I-E-C programs are of little measurable practical value where family planning services are not available. Moreover the type of family planning service may also greatly influence its acceptability: clinical distribution versus commercial distribution (pharmacies) versus community-based distribution. Finally, the variety of available contraceptive methods must be considered. For example, voluntary surgical contraception is increasingly popular among women who reject the temporary methods as being ineffective or inconvenient. However, such acceptance is of little practical value if surgical services are not available.

## 3. Identify the mest effective channels of mass and interpersonal communication

In developing an I-E-C strategy, it is crucial to know what types of media are readily available to the target population, what amount of contact the target population has with each, and what audience preferences are for programs, stations, and listening times (for radio and TV), or favorite titles and types of articles (for newspapers and magazines). Moreover, it is important to identify the interpersonal channels that could be useful in diffusing the message, such as home visits, group meetings, or informal communication with opinion leaders.

## The use of data in developing an I-E-C strategy

Chapter Three contains a sample questionnaire, designed to provide data
on these different aspects of family planning for a specific target population. How can these data be used to develop an I-E-C strategy? Although this question is answered in more detailed terms in Chapter Six, the following overview of the different uses for these data suggests their value in the planning of future I-E-C efforts.

Assessment of the current situation. These data enable the communicator to abide by a basic rule of communication theory: know the audience. In this case, "knowing the audience" refers to assessing the current level of acceptance for family planning so that the communications program can be designed accordingly. The messages appropriate for a population with almost complete acceptance and high levels of use are far different from those needed in an area where family planning is not readily accepted and/or its acceptance faces serious obstacles. While persons with years of experience in a family planning program may be able to speculate on levels of knowledge and use, the results of audience research provide a concrete basis for communication design.

Moreover, these data may provide unexpected insight into the dynamics of a family planning program that might otherwise be neglected. For example, the data could reveal a relative lack of knowledge about a particular method which program planners had thought was well publicized. Similarly, some of the less widely promoted methods (such as the injection) may prove to have great popular appeal among the target group, a factor which should not be overlooked by the local family planning association.

Finally, the data regarding attitudes and use of specific methods can be valuable in revealing sources of resistance and/or motives for discontinuance of a method. While communications should not dwell on the negative aspects of the given prorluct, a counter-campaign-especially as part of person-toperson activities-can be indispensible in dispelling unfounded rumors.

As such, the data on the current family planning situation serve as a means of determining the potential receptivity of the audience to family planning messages and the degree of knowledge/use among the target population; in addition, they suggest content of the messages aimed at dispelling rumors and reducing discontinuance.

Sociodemographic factors. This information is very useful in identifying subgroups or segments of the target population who are potentially most receptive to family pianning, as well as those most resistant to the concept.

There may be grea: disparities from one ethnic or regional group to another. Indeed, according to a study conducted in Guatemala, the differences between the Spanish-speaking "ladinos" and the Indian groups were so great that a single "blanket" campaign was ruled out as inappropriate. ${ }^{2}$ Rather, it was found that the ladinos were ready for straightforward messages about methods and sources of contraceptives, whereas the Indian groups needed more basi messages about the existence of family planning and its benefits.

Finally, these data on socioeconomic factors relating to family planning may suggest motivational appeais that could be incorporated into messages. For example, if the data reveal tnat contraceptive use is higher among working women than among those with no paying job, this would indicate a felt need on the part of some women to avoid a pregnancy that might interfere with their jobs. If some women demonstrate this tendency, it is likely that similar motivations exist among other working women who may not as yet be contracepting. In short, one can capitalize on a phenomenon which is already apparent and which can be extended with a positive result.

Social psychological factors. This section of the analysis, while most difficult, is also the most useful in providing meaningful content for family planning messages. Indeed, since there is increasing criticism of "small-family-happy-family" propaganda, many communicators are asking themselves what should be used in its place.

The inventory of social psychological obstacles to family planning, provided by audience research, indicates the problem areas to be tacliled through a communicator's program. While the research may reveal some topics too sensitive to attack (such as religious and moral beliefs), it shows that most topics do lend themselves to messages via one medium or more. In fact, the creative department of ar organization, or even an outside advertising agency contracted to do a family planning campaign, may indeed welcome the new approaches provided by audience research.

In short, the main use for this information on social psychological obstacles to family planning is content of the communication program. It especially helps a communicator to determine the relative importance of different obstacles (as well as to identify those factors which apparently do not represent obstacles) so that appropriate attention can be given to the different topics.

Service-related variables. These data provide valuable feedback on previous family planning program activities, and suggest the reach and effectiveness of distinct activities. For example, if few people have received a home visit, but those who have are far more likely to be contracepting, then this activity could be given higher priority in planning the overall communication program. By contrast, if a relatively large percentage of respondents have received a visit, but they are no more likely than others to be using contraceptives, then the program director might want to consider making such visits more effective or investing those funds in other activities. Responses to the open-ended questions on the different activities may provide suggestions.

This section of the diagnostic study also provides information on the allimportant question of perceived availability of contraceptives. If the target population does not know local sources for obtaining contraceptives, then the effect of a motivational campaign will be small indeed. In such a case, the communication progran should focus heavily on sources of contraceptives. On the other hand, if most respondents could name one or more sources of contraceptives but are not using them, then it becomes necessary to identify
the reasons for this nonuse. Many of these reasons will be apparent in other sections of the questionnaire.

Mass and interpersonal channels of communication. This final aspect of the study is invaluable in making decisions regarding the use of the media. For example, the findings indicate the frequency with which the target population is exposed to the various media and thus would be potential recipients of family planning messages. For organizations with limited budgets, the findings suggest media that could be eliminated from the media mix to be used in the campaign, and indicete priorities to be given to one over another.

Once the overall priorities are determined, these data will provide gsidelines for the placement of family planning messages. For example, if radio proves to be one of the most important media to be used, then the communicator will need to know the peak listening times, popular stations, and favorite programs, in order to capture as large an audience as possible for the messages.

The sample questionnaire also provides feedback on existing media efforts that may aid in planning for future campaigns. For example, an organization with a limited budget may u.nly be able to afford four messages a day on the leading radio station. The I-E-C chicf may worry that this is not enough to have an impact, and that other activities should be neglected so that radio coverage can be improved. However, if the research reveals that the vast majority of respondents report having heard a family planning message at least once a day, then ${ }^{2}, 1$ I t e. hief might want to reconsider and (for example) invest the art.tuonal funds in more person-to-person activities.

Finally, it is important to identify patterns in interpersonal communication. If a given family member or community figure emerges as a key link in informal communication on family planning, then future program activitiesespecially those involving person-to-person comrinunication-could try to capitailize on this individual's natural role in the communication process.

The questionnaire that provides information on these different aspects of family planning among the target audience is presented in the following chapter.

## Notes

${ }^{1}$ Bogue, Donald J. Twenty-five Commmication Obstacles to the Success of Family Planning Programs (Chicago: Community and Family Study Center, The University of Chicago, 1975).
${ }^{2}$ APROFAM and $C^{C}$ SC. Perspectivas para la Planificación Familiar en Areas Rurales de Guatema!a (Clicago: Community and Family Study Center, The University of Chicago, !978).

## Chapter Three

## SAMPLE QUESTIONNAIRE

The purpose of this sample questionnaire is to indicate the range of possible items that can be included in an interview. The actual amount and type of information to be collected will depend on three factors: available resources, local circumstances, and other sources of information.

Available resources. Before undertaking this type of study, the researcher should assess the available resources in terms of personnel, time, and funds. If the personne! to be involved in conducting the field work and analyzing the data have had only limited experience in this area, it might be advisable to shorten the interview by omitting certain questions or sections, and thus simplify their task. If time is a factor, it might be necessary to shorten the questionnaire in an effort to cut down on the time required not only for interviewing, but also for coding and tabulating. Shortening the required time would also reduce the overall cost of the study, and should be considered if there are financial constraints to carrying out the research.

It should also be mentioned that one relatively inexpensive means of obtaining data is to "piggy-back" (add on) family planning questions to a questionnaire used for research on a related topic such as health, nutrition, or agriculture. While this method can yield a large savings, it has the disadvantage of limiting the number of questions that can be included; it also makes it difficult to control the research process.
Local circumstances. In the following nuestionnaire, an attempt has been made to include as many items as possible in order to give an idea of the large range of available topics. However, not all will apply to every country or every situation. For example, if there is only one existing religion in an area, questions about religious sects would be meaningless since everyone
would be expected to answer in the same way (no variance in response). Likewise, if television has not yet come to the area, it would be useless to include items on this topic; even if a handful of respondents have seen television elsewhere, it does not represent a potiatial channel of communication for the target population.

Other soures of information. It is possible that some of the information which the researcher wishes to obtain has already been collected and reported in connection with other studies of the target population. Thus, it may not be necessary to devote as much attention to these items; instead, the researcher can concentrate on other "unexplored" areas.

The items inculed in the sample questionnaire represent possible questions to be included in a diagnostic interview. Each individual researcher should be selective in choosing what to include in any particular study.

The questions in the following questionnaire are arranged in an appropriate order for actual interviewing, rather than the exact order in which these topics were presented in Chapter Two. However, the items are reorganized by topic in Chapter Five in discussing procedures for analysis.

## SAMPLE QUESTIONNAIRE


*Usually the name and address of the respondent is also obtained, but not coded.


8. Are you currently pregnant?

1. $\qquad$ yes
2. $\qquad$ no
3. $\qquad$ maybe, unsure
4. (IF UNCERTAIN) When was your last menstrual period?
$\overline{88 .}$
weeks ago
$\longrightarrow$ NA
BASED ON THIS INFORMATION, THE INTERVIEWER RE-CHECKS with the respondent on the following totals
5. Total Number of Live Births (Items $1+4$ )
6. Total Number of Pregnancy Losses (Items $6+7)$ $\qquad$
7. Total Number of Pregnancies (Items $1+4+$ $6+7$ ) (NOTE: UNLESS THERE HAVE BEEN MULtiple births or the respondent is currently PREGNANT): $\qquad$
8. So you think you could becone pregnant now if you wanted to?
9. $\qquad$ yes (fertile
10. $\qquad$ no (aterile)
11. $\qquad$ uncertain (possible sterile)
12. (IF "NO" OR "UNCERTAIN") Why?

|  |
| :--- |
| 88. ___ $\quad$ NA |
| 99. |

E. Number of Children (FOR MEN ONLY)

1. How many children do you have (in your current marriage)?
$\qquad$ children
2. How many children have you had (In this marrlage) that have died?
$\qquad$ children have died
F. Desire for More Children
3. Do you want to have another child (or to have children, If NEVER PREGNANT) scme day, or do you have all you want?
4. $\qquad$ Wants at least one more
5. $\qquad$ Doesn't want any more
6. $\qquad$ Whatever God senda
7. $\qquad$ DK
Code






## M. Popular Beliefo sbout Family Planning

- Do you belleve that family planning goes againat God's will?

1. $\qquad$ yes
2. no
3. $\qquad$
4. Do you belleve that family planning encourages couples to be unfaithful to each other?
5. $\qquad$ yes
6. $\qquad$ no
7. $\qquad$ DK
8. Do you believe that teenagers learn about family planning, more of them will have premarital relations?
9. $\qquad$ yes
10. no
11. $\qquad$ DK
12. Do you belleve that teenagers who want to have premarital relarions ulli do во, whether or not they know about family planning?
13. $\qquad$ yes
14. $\qquad$
15. $\qquad$ DK
N. Knowledge and Previous Use of Contraceptive Methods
(NOTE: FOR EACH OF 12 CONTRACEPTIVE METHODS, IT is of interest to determine:
a) Knohledge:
1) R. spontaneously mentions it

1I) R. remembers hearing about it when INTERVIEWER MENTIONS IT
1ii) R. has never heard of it (Even WHEN INTERVIEWER MENTIONS IT)
b) USE:
i) R. has (EVER) USED the Metiod i1) R. has never used the method
this information can be obtained by asking the following questions and circling the numbers in the appropriate colum in the table below.)
a) What family planning methode do you know? (PROBE: Do you know of any other things which people take or do to keep from getting pregnant?)



[^2]| 27. Of all the methods you know, which do you believe is the most reliable (aside from sterilization): | rasde |  |
| :---: | :---: | :---: |
|  | No. of cols. |  |
|  | 2 | - |
| 99. |  |  |
| 28. Are you or yoar spouse currently using any method of family planning? |  |  |
| 1. $\longrightarrow$ yes | 1 | - |
| 2. no |  | - |
| 29. (1F YES) What method are you currently using? |  |  |
|  | 2 | - |
| A8. $\quad$ NA (not using FP) |  |  |
| 30. How long have you been using this method? |  |  |
| $\ldots$ (CODE IN IUNTHS) | 2 | - |
| 88. |  |  |
| 99. _ DK |  |  |
| 31. Where d. you obtain your contraceptives (pills, condons, etc.)? |  |  |
| 1. FP center or clinic | 1 | - |
| 2. Health center or post |  |  |
| 3. Pharmacy |  |  |
| 4. P_ Private doctor |  |  |
| 5. Community-based) Distributor |  |  |
| 6. $\qquad$ Other (specify) $\qquad$ |  |  |
| 8. |  |  |
| 9. DK |  |  |
| 32. (If respondent has used some method before BUT IS NOT NOW ASK) What was the last method you used? |  |  |
| A | 2 | --- |
| 88. _ NA |  |  |
| 99. $\quad \mathrm{DK}$ |  |  |
| 33. Why did you stop using it? |  |  |
|  | 2 | --- - |
| 88. NA |  |  |
| 99. $\quad$ DK |  |  |






4. Why (was it useful or not useful)?

5. Have you ever attended a public meeting about family planning? (i.e., a meeting that was announced to the general public, to be held in a school, commuity center or other meetint place)

1. $\qquad$
2. $\qquad$ no (go to guestion s-9)
3. (IF YES TO Q. 5) How many public meetings on family planning have you attended?
B. NA
4. DK
5. Was this public meeting(s) useful or not useful?
6. $\qquad$ useful
7. $\qquad$ not very useful
8. $\qquad$ Na
9. $\qquad$ DK
10. Why (was it useful or not very useful)?
11. $\qquad$ N
12. $\qquad$ DK
13. Have you ever attended a small group discussion on family planning (i.e., where you personally were invited to discuss this with some friends ur other people)?
14. $\qquad$ yes
15. $\qquad$

16. (YES TO Q. 9) How many times have you attended a small group discussion of fanily planning?
$\qquad$ times
17. 

....... NA
9. $\qquad$ DK
(ar.

12. Wh! (was this discussion useful or not very useiul)?
88. $\qquad$ NA
99. $\qquad$ DK
T. Informal Compunication on Family Planning

1. In general, do you feel that women can talk to each other about family planning without being embarrassed?
2. $\qquad$ yes
3. $\qquad$ no
4. DK
5. In general, do you feel that men can talk to each other about family planning without being embarrassed?
6. $\qquad$ yes
7. no
8. DK
9. In general, do you feel that husbands and wives can talk to each other about family planning without being embarrassed?
10. $\qquad$ yes
11. ___ no
12. $\quad \mathrm{DK}$






13. (IF "YES":) About how often do you hear something about FP on TV?
14. $\qquad$ several tines a day
15. $\qquad$ once a day
16. $\qquad$ at least once a week
17. $\qquad$ at least once a month
18. $\qquad$ less than unce a month
19. $\overline{\text { HAVE ACCE }}$ ABOUT FP)
20. $\qquad$ DK
21. Are there newspapers in this tow?
22. $\qquad$ yes
23. $\qquad$ no (go to guestion v-30)
24. How often do you get a chance to read the newspaper?
25. $\qquad$ every day
26. $\qquad$ several times a week
27. unce a week
28. once every two weeks
29. _once a month or less
30. never (or not applicable)
31. $\qquad$ DK
32. What newspaper do you usually buy or read?
33. ........m
34. $\qquad$ DK
35. Have you ever seen anything on FP in the newspaper?

36. How often do you see something on family planning in the newspaper?
37. $\qquad$ every day
38. several times a weck
39. ____ once a week
40. once every two weeks
41. once a month or less
42. __- never (or not applicable)
43. $\quad \mathrm{DK}$
$\left[\begin{array}{c|c}\begin{array}{c}\text { No. } \\ \text { of } \\ \text { cols. }\end{array} & \\ \hline 1 & \\ 1 & \\ 1 & \\ 1 & \\ 1 & \\ \hline\end{array}\right.$



## 43. When was the last time you saw a poster on family planning? (CODE IN MONTHS) <br> $\qquad$ months ago

W. Perceprions of Infant Mortality

1. If a waman in this town gives birth to ten children, how many do you think will live to grow up?
$\qquad$ children
2. DK

2 If a woman in this tom gives birth to five children, how many do you think will live to grow up?
$\qquad$ children
99. $\qquad$ DK
3. Do you believe that the number of infants who die today is greater or less than five years ago?
1.

| $\square$ | greater |
| :--- | :--- |
| less |  |
| $\square$ | same |
| DK |  |

4. If a woman wints to have three childeren, should she have four in case une dies or isn't this necessary?
5. $\qquad$ should have four
6. $\qquad$ isn't necessary
7. $\qquad$ DK
X. Awareness of the Effect of Pregnancy on the Woman's Health
8. Do you believe that having too many children can be harmful to woman's health or is thit just a rumor?
9. ___ can be harmful
10. ___ is just a rumor
$9 . \quad$ DK
11. Can it harm a woman's health to have her ibil dren one right after the other or doesn't it affect her health?
12. $\qquad$ harmful
13. $\qquad$ doesn't affect health
14. DK



15. Do you feel that children should support their parents during their old age or should the parents be ahle to support themsclves?
16. $\qquad$ children should support parents
17. 

 parents should support them-
9.
$\square$ DK
2. If the time arrives when you can no longer work because of age, to you plan to live with your children or will you live elsewhere?

1. $\qquad$ with children
2. $\qquad$ elsewhere
3. $\qquad$ NA (no children)
4. $\qquad$ DK
5. Does having a lot of children mean more security for one's old age, ur can one feel secure having just two or chee children?
6. $\qquad$ lots of children
7. _ two or three children
8. it's the same
9. 

DK
BB. Level of Aspirations for One's Children

1. If a son can make a better living (ear: …re money) in some other place, should tee leave home or should he stay with his tarill $\because$ :
2. $\qquad$ leave home
3. 

___ stay with family
3. __. indifferent
9. DK
2. Would you like your son (IF :0 SW: .: :.: : you had ene) to have the same trie $\because \because \because \quad \therefore$ his father (IF MLLE, ASK: as $\because a:$ :arel $\because$ would you like him to do somethr: etsi

1. $\qquad$ same
2. _.... something else
3. _-_ indifferent
4. $\qquad$ DK
5. (1F "SOMETHISG ELSE", hinat a: : . . $\because$.n. would you like him to howe:
6. 

SA
99. Dk



4. How wld are you (as of last birthday)?
$\qquad$
5. How old is your spouse?
$\qquad$ years
6. What is your religious affilistion? (To what religion do you belong?)

1. $\qquad$ Protestant
2. $\qquad$ Catholic
3. Jewish
4. $\qquad$ other
5. $\qquad$ no religion
6. Would you consider yourself to be a person who 13
7. $\qquad$ very religious
8. $\qquad$ somewhat religious
9. $\qquad$ not very religious
10. $\qquad$ NA (nas no religion)
11. $\qquad$ DK
12. Do you know how to read? For example, are you able to read a newspaper?
13. $\qquad$ yes
14. $\qquad$ no
15. (IF "YES" ASK:) Would you say that for you reading is:
16. $\qquad$ NA: doesn't read
17. $\qquad$ very difficult
18. somewhat difficult
19. not very difficult
20. $\qquad$ DK
21. How would you describe your spouse's ability to read?
22. $\qquad$ doesn't read at all
23. $\qquad$ reads with great difficulty
24. reads with some difficulty
25. reads with little difficulty
26. NA (no spouse)
27. $\quad \mathrm{DK}$
28. Did you ever stead school?
29. 

 yes
2. no
12. (IF YES) What was the last grade you completed?
$\qquad$ grade
00. - NA (didn't attend)
99. $\quad$ DK, don't remember
13. Dic your spouse attend school?

1. $\qquad$ yes
2. __ no 8. .___ NA (no spouse)
3. What was the last grade he/she completed?
$\qquad$ grade
4. $\qquad$ spouse never attended school
5. $\qquad$ NA (no spouse)
6. $\qquad$ DK
7. Do you do some type of work which allows you to earn money?
8. $\qquad$ yes
9. $\quad$ no
10. (IF YES) What is your current occupation?
11. $\qquad$ NA
12. Does your spouse do same type of work which allows him/her to eam me:ley?
13. $\qquad$ yes
14. 

 no
8. $\qquad$ NA (no spouse)
18. (IF YES) What is his (her) current oceupation?
88. $\qquad$ MA (no spouse or diesn't work)



## Chapter Four

## METHODOLOGICAL CONSIDERATIONS

This manual is not intended as an introductory text to social research. Rather, it assumes that those who will carry out the audience research will have experience in the following areas or will have access to experts to provide guidance in these aspects:

* basi: concepts of sampling
* pretesting the questionnaire to detect any questions not readily understood in their current form
* selecting, training, and supervising the interviewers who conduct the fieldwork
* precoding the questionnaire (as has been done on the sample questionnaire in Chapter Three), preparing a codebook for all open-ended questions
* data processing by computer (although the questionnaire could be tabulated by hand, the number of questions and respondents makes this option unrealistic; furthermore, the analyses outlined in Chapter Five are based on computer processing).
The current chapter focuses on issues that are particular to audience research and/or have proven to cause difficulties in previous fieldwork experiences.


## Sampling

The problem of sampling in audience research is not uncommon in other types of social researcli as well. On one hand, the researcher would like to take all possible measures to assure the validity of the data. In terms of sampling, the desire for such assurances would imply the need for a random
or "probability" sample of the target population. With an adequate sample size and rigorous sampling techniques, the research will yield representative data for which confidence intervals can be calculated. In short, random sampling allows for a high degree of confidence in the findings, if the fieldwork is conducted properly. However, the price of obtaining the random sample is often very high and the process time-consuming.

At the same time, family planning or other social development groups conducting audience research usually have very limited resources, especially for research. For audience research to be of real value to the organization, it must yield results in a relatively short period of time at a minimum cost.

Moreover, because of the applied nature of audience research, the researcher is often more interested in the general trends than in the specific percents and confidence intervals. For example, if a researcher found that 77 percent of the population were in favor of farnily planning, the implications of the finding would be the same whether the research showed the number to be 80 percent, 75 percent, or even 70 percent. The extra precision gained by having a probability sample will not necessarily translate into greater benefits for the program in terms of the actual use of the results.

In short, if the researcher has the resources of time and money to obtain a probability sample of the target population, he or she should certainly take advantage of the situation. The results will have greater precision and more measurable confidence intervals; in addition, they will be truly representative of the target population in the strict sense of the word.

On the other hand, if obtaining a truly random sample of the population represents too great a cost to the organization (making it impossible to conduct the research), then it is recommended that the sample be drawn in another way. Other methods are available that will yield results approximately the same as if a strict probability sample had been used.

One type of compromise sample is to make a "judgmental" selection of areas to be studied. For example, if the researcher wishes to collect data in order to design a nationwide communications program but has no resources for a national probability sample, then he or she might select several different states or departments in which to conduct the research. If the country is fairly homogeneous on ethnic or cultural traits, then the researcher would select according to geographical criteria. If there are several distinct ethnic or racial groups within the country, the researcher might select one area that would be typical of each group.

In making this "judgmental" selection, the researcher must be wary of unusual circumstances that would eliminate an area as being "typical." For example, if an intensive pilot project for community-based distribution of contraceptives has been initiated in a given area, then this area can no longer be considered as "typical" of the communities in the area.

Even if the judgmental approach is used to select areas, random sampling
should also be used to select the communities and even the actual households in which the research will be conducted. As a result, the research findings will be truly representative of the area studied, even if they can only be generalized to other areas with caution.

## Criteria for selecting respondents

Once the method for selecting households has been determined, the researcher must decide who should be interviewed.

For the purposes of audience research for family planning, both men and women should be included, since both play a significant role in the decision to practice family planning. However, this study is not designed so that both the husband and the wife would be interviewed. Interviewing couples is generally more time-consuming, since it is usually difficult to find both at home at the same time. Moreover, there are relatively few questions which take full advantage of matched data on couples. Instead, since both men and women are included, only the husband or the wife should be interviewed from a given household. There should be an equal number of male and female interviewers to interview respondents of their own sex, each conducting a specified number of interviews in each community included in the sample in order to yield the requisite number of interviews for men and women.

Moreover, in most cases the researcher will want to limit the sample to adults for whom family planning is a real issue: men and women of reproductive age, which might be approximated as 18 to 49 years for men and 18 to 39 for women. The decision to include only those people who currently have spouses (as opposed to single, divorced, separated, or widowed persons) will depend on the interests of the organization. The first option yields data from the true target group, whereas the latter provides a clearer reflection of "public opinion."

## Precoding of the questionnaire, including "NA" and "DK"

Especially on a long interview, it is extremely helpful-both for the interviewer and later for the coder-to have a precoded questionnaire. For every "close-ended question" (that is, for every question which has a predetermined number of answers), there should be a code assigned to the answer. Thus, the interviewer merely circles or checks off the appropriate response. For example:
A. Sex of respondent:

1. ___male
2. ___female
B. Do you approve or disapprove of couples' using family planning?
```
1.____________
2. ____disapprove
3._
    indifferent, neutral
```

(Note: Although the interviewer does not mention or suggest the neutral category, this is a valid response which can be expected from some respondents. Thus, it is far easier to include it as a possible code for the interviewer to check than to require the interviewer to write it in each time.)

The NA code. There are two other codes which appear on the sample questionnaire in Chapter Three. The first is "NA" or not applicable. This is checked-either at the time of the interview or afterwards when the interviewer reviews the questionnaire-for all questions that were not asked of the respondent. A typical case would be when there are whole sets of questions that are only asked of certain types of respondents. For example, specific questions on knowledge and attitudes are only asked of people who have ever heard of the pill; this section would be skipped for those who have not heard of the pill, and the response NA would be checked in each case.

A second common use of the NA is for follow-up questions. Often, a second question is asked as a "follow-up" to the first, and it should be answered only by persons who gave a certain answer to the first. For other persons who were not asked the question, NA should be checked. For example:

## First Question:

1. Do you do some type of work which allows you to earn money?

2. $\qquad$

## Second Question:

1-A. (IF YES) What is your current occupation?
88.__NA

Some researchers will argue that this type of coding for NA is unnecessary, that it can be done automatically by computer at a later time. However, such coding does have the advantage of every item in the questionnaire being filled in-even if it is with NA-which tends to minimize the number of questions accidentally skipped.

Finally, the response of NA is very different from DK (which stands for
"don't know"), explained below. Inexperienced researchers have a tendency to confuse the two, which can create a misleading result. If a person is not asked a given question, he or she should not be recorded as "don't know." Likewise, it is erroneous to check NA for a question that was asked of the respondent but which he or she was unable to answer.

The $D K$ answer. As most interviewers know, respondents are very prone to answer "I don't know" to questions. In some cases, they truly do not know the answei. However, it is often the case that "don't know" has several meanings:

1. The respondent is simply giving himself time to think. For example: "I don't know . . . (pause) . . I guess you could say I approve of that."
2. The respondent is hesitant to say what he really feels. However, with an additional probe by the interviewer, a respondent will usually express his true fecling. For example:

Interviewer: Do you approve or disapprove of couples using family planning?
Respondent: Oh, I don't know. . . .
Interviewer: Well, generally speaking, are you in favor of family planning or against family planning?
Respondent: Well, I really don't think it is a very good idea. . . .
3. The respondent doesn't want to give the wrong answer, even if he has a good idea of what the correct answer might be, and thus avoids embarrassment by answering, "I don't know." Again, a probe is in order. For example:

Interviewer: What should a woman do if she forgets to take her pill just one day?
Respondent: Let's see . . . they said something about that on the radio last week . . . (pause) . . . but I don't really remember. . . .
Interviewer: Think about it a minute. What should a woman do if she forgets to take her pill just one day?
Respondent: ...Oh, yes... she should just take two the next day.
In each of the above cases, valuable information would have been lost if the interviewer had readily accepted "don't know" as an answer. Thus, it is extremely important to train the interviewers to probe for more information and to accept "don't know" only when it is certain that the respondent does not have a better answer.

The reason for emphasizing this point is the inclusion of "9. $\qquad$
on the majority of items in the sample questionnaire, even for questions on which it is hard to imagine a person's not being able to give a concrete yes-orno answer. This possible response has been included in order to facilitate the recording of data during the interview and the subseque-nt coding. However, the very presence of it on the interview will cause inexperienced interviewers to assume that it is as good an answer as any other, when in fact probing will often reveal a more concrete answer. This point should be stressed repeatedly during interviewer training.

Spaces for coding. On the sample questionnaire, the number of spaces in the "code" column varies from one to four. As researchers familiar with computerized data collection will easily recognize, the number of spaces depends on the number of possible responses to a given question, as follows:

| Number of spaces or "column spaces" | Number of possitle responses |
| :---: | :---: |
| 1 | 1 to 9 |
| 2 | 1 to 99 |
| 3 | 1 to 999 |
| 4 | 1 to 9999 |

Most closed-ended questions will only require one space, since there are less than 9 possible responses (example: yes, no, DK; approve, disapprove, neutral; Catholic, Protestant, Jewish, other). The types of questions that require more spaces include the following:

2 spaces: age, last grade of school completed, reason for disapproving of family planning
3 spaces: age of last child, coded in months; case number for the study (both could casily be greater than 99)
4 spaces: income per month in pesos (which could be higher than 999).
If the data are to be processed by computer, it is important to check that each item has enough spaces (columns) for subsequent coding before the forms are printed for use in the field. If there is any doubt, it is better to have too many columns than too few. It is easy enough to write " 4 " as " 04 ," but there is no way to fit " 14 " into one space (column).

The meaning of 8 and 88,9 and 99. The codes associated with a given answer are arbitrary. It would be equally valid to have $2=$ yes and $1=$ no or the reverse. Generally, it is simply a matter of the researcher's preference.

Likewise, most researchers find it helpful to use the same numbers throughout the questionnaire for NA and DK, especially for computerized processing (as explained in the next chapter).

The convention used in this study is as follows:

NA $=\left\{\begin{array}{l}8 \text { (for one-column responses) } \\ 88 \text { (for two-column responses) } \\ 888 \text { (for three-column responses) } \\ 8888 \text { (for four-column responses) }\end{array}\right.$
$\mathrm{DK}=\left\{\begin{array}{l}9 \text { (for one-column responses) } \\ 99 \text { (for two-column responses) } \\ 999 \text { (for three-column responses) } \\ 9999 \text { (for four-column responses). }\end{array}\right.$
This point should also be checked carefully after the questionnaires are typed and before they are printed. If "DK" is accidentally coded as " 3 " on some questions and " 9 " on others, it tends to create confusion and complicate the data processing.

## Conclusion

The items covered in this chapter are isolated technical points that should be kept in mind when preparing for and carrying out the fieldwork. However, they are not intended as a guide to social research.

Organizations or individuals interested in conducting audience research but having only limited experience with social research will benefit from consulting local researchers who have conducted studies in related areas. It is generally easier to plan carefully and avoid errors than to correct for short-sightedness at a later date.

## Chapter Five

## GUIDELINES FOR ANALYZING THE SAMPLE QUESTIONNAIRE

One of the classic problems of survey research on family planning has been the quantity of data which has been collected around the world but never analyzed or analyzed but never applied. The purpose of this chapter is to show how the data in the sample questionnaire can be analyzed in a simple, straightforward manner. In the following chapter, these analyses are used in developing an I-E-C strategy.

There is no set formula for analyzing data. Although there are standard statistical techniques and tests that are used widely in the social sciences, each researcher usually takes a slightly different approach to the problem. Thus, it would be a mistake to suggest that there is only one way to analyze the data collected with the sample questionnaire (Chapter Three). At the same time, the amount of data generated by the sample questionnaire is considerable, and to provide no guidelines for possible analysis would be a disservice to those who are unfamiliar with audience research.

In short, the guidelines given below represent one possible approach to the analysis of this data for the purpose of designing an I-E-C strategy. However, these guidelines by no means constitute an exhustive list of possible analyses, and the individual researcher may want to adapt them to a particular situation.

While most readers will be familiar with the jargon of social research, a few key terms are reviewed in the next section before proceeding to the guidelines.

## I

## Key Terms in Social Research

## Level of measurement

The way in which a variable is measured determines in part the statistical procedure one can use for analysis of the data. There are four levels of measurement.

1. Nominal. The variable has two or more categories which have no special order (numerical relation) (i.e., one is not "larger" than the other). Example: Religious affiliation, with the categories "Protestant, Catholic, Jewish, other."
2. Ordinal. The categories have a numerical order or sequence, but the interval between categories is variable or nondetermined. Example: "How often do you listen to soap operas: often, sometimes, or never?"
3. Interval. The categories have a numerical order with a set interval between categories; however, there is no fixed "zero point" so that one score can be considered "twice as much" as another. Example: Temperature in degrees ( 60 degrees is not "twice as much" as 30 degrees; yet there is a set, nonvariable interval between one category and the next: one degree).
4. Ratio. The categories have a numerical order with a set interval between each and a fixed zero point so that the quantitative relationship between categories can be determined. Example: Age of respondent (a man of 60 has lived twice as long as a man of 30 years).
Nominal and ordinal level variables are also referred to as categorical or nonmetric. Interval and ratio level variables are referred to as continuous or metric. Certain types of analysis are appropriate for one level, whereas other levels require other types, as discussed in detail below.

Occasionally in social research, ordinal variables are treated as continuous because that allows for a great range of analysis. For example, a five-point scale for attitude toward family planning might have the categories "strongly approve, approve, neutral, disapprove, and strongly disapprove." It is not unusual to find such a variable treated as continuous, even though in rigorous statistical terms it is not a continuous variable.

## Collapsing categories

In some cases the researcher will want to convert a continuous variable to categorical form in order to do cross-tabulation, for example, with a manageable number of categories. One such case would be if a researcher were to cross-tabulate current contraceptive use by age of respondent, which could result in some 30 categories for age (the continuous variable). Instead, it is
frequently advisable to combine or "collapse" categories into a smaller number, so that age might then have only six sategories: less than $24,25-29$, 30-34, 35-39, 40-44, and 45-49.

## Dependent and independent variables

Often researchers are interested in determining the relationship between variables. For example, who would be more likely to approve of family planning in a country: men or women? Or, what factors influence the decision to use contraceptives?

In the above cases, the dependent variable rcfers to the condition or situation to be explained (attitude and use of family planning). The independent (or "explanatory") variable(s) refers to the items used to explain the condition or situation (sex of the respondent or the "factors" mentioned above such as availability of contraceptives, social psychological factors, etc.).

There is nothing about the variable per se that necessarily makes it dependent or independent: rather, it is the way in which it is used. In the above example, attitude and use were both dependent variables; however, if one asks, "Are people with favorable attitudes more likely to use family planning than those with unfavorable attitudes?" then attitude is independent, use is dependent.

## Dummy variables

Often, researchers wish to use a categorical variable in analysis which requires continuous variables, such as multiple regression. In this case, it is possible to resort to "dummy variables." Although this procedure will not be described herein, researchers who face the problem of wishing to incorporate categorical variables into a multiple regression or other analysis are referred to standard texts or the manuals for standard computer programs (e.g., Statistical Package for the Social Sciences).

## Hypothesis testing

In addition to describing a given situation (e.g., that 30 percent of the eligibie women in country $X$ are currently contracepting), it is also of interest to test certain hypotheses involving the variables under study. Specifically, the researchir may wish to determine if certain factors such as the use of contraceptives are related to others.

Most introductory statistics textbooks cover the topic of hypothesis testing in detail, and it will not be aiscussed in this monograph. However, it should be stressed that most of the cross-tabulations and the multiple regression procedures suggested in the plan of analysis in this chapter have tests of significance (of chi-square and the F-statistic, respectively). These tests of significance are the key to determining if the relationships found are statistically significant and to drawing valid conclusions from the data.

## II <br> Steps in Preparing the Data for Analysis

## Editing or "cleaning" the data

In a large study, it is inevitable that some mistakes will be made-when the interviewer records the responses, when the coder translates verbal responses to numbers, or when the keypuncher prepares the computer cards for processing. Thus, the first data processing task is to edit or "clean" the data. This cleaning task would be tedious if not impossible to do by hand for a large data set. Instead, it is recommended that the editing be done by computer. One such program that is very simple to learn and use is described by Henry G. Elkins in his manual, Mini-tab Edit, Mini-tab Frequencies, and Mini-tab Tables: A Set of Three Interrelated Statistical Programs for Small Computers (Chicago: Community and Family Study Center, The University of Chicago, 1971).

The Mini-tab edit program allows the researcher to define and then to locate within the data set three types of errors:

1. Out-of-range: Usually, only certain numbers are valid codes to a given question. Any others are "out-of-range." For example:

Sex of Respondent
1 = male
$2=$ female
If the researcher finds cases with $3 \mathrm{~s}, 4 \mathrm{~s}$, or 5 s , he or she can be sure that there is an error which needs to be corrected.
2. Arithmetic errors: In some instances, the values from two or more variables must add to the value of another variable; if not, there is an error. For rxample,

Number of male children

+ Number of female children
Total number of children

3. Logical errors: In some cases, the answer to a given question is logically related to a second question. As juch, the errors can often be detected if this "logic" is violated. An example would be if a male respondent reports having two pregnancies.
While many researchers are anxious to continue with the actual analysis and avoid this extra step in the process, editing of the data yields results that provide the researcher with fewer problems (what does one do with a third sex?) and results that inspire greater confidence in the final analysis.

## Preparing the computer program for processing the data

As mentioned above, the quantity of data generated by the sample questionnaire dictates that the data be analyzed by computer if the full benefit of
the research is to be realized. There are certain standard or "canned" computer programs that can be used for this purpose. The selection of one versus another depends in large part on what is available through the local computer facility. Two programs frequently used in the social sciences are SPSS (the Statistical Package for the Social Sciences) ${ }^{1}$ and SAS (Statistical Analysis System). ${ }^{2}$

However, these systems are not always available at computer facilities in developing countries since they must be run on large computers. One canned program appropriate for use on small computers which could also be used for processing the data for this survey is the Mini-tab program. ${ }^{3}$
$I^{\prime}$ the researcher is not familiar with computer programming, he or she should nonetheless be able to obtain assistance from the local computer facility in locating a person who can do the necessary programming for the project. The lack of computer programming skills should not be a deterrent to carrying out audience research.

## Defining "values to be excluded"

The researcher will usually want to know exactly what percent of respondents gave what answer to each variable. However, there will often be codes that the researcher does not want to include in later statistical procedures.

For example, suppose that in response to a question on "ideal number of children," 15 out of 100 respondents answered "don't know." This response would then be coded as " 99 " on the sample questionnaire. If the answers for all 100 respondents were included in a calculation of the mean (average) "ideal number of children," the result would be deceivingly high. That is, the 99s would have the effect of raising the average considerably. What the researcher really wants is to calculate the average, excluding the 15 respondents who "don't know."

Most of the standard programs for analyzing social science data have this option available, although the number of valuts (codes) that can be excluded on a given item varies. One convenient feature in several of these programs (such as SPSS) is that the percentage data will be calculated in two ways for each variable-once without recognizing the excluded values and a second time excluding them. Another important feature is that the researcher can request for the definition of the excluded values to be overridden for a given procedure, which is equivalent to never having defined values to be excluded in the first place.

Since this procedure of defining values to be excluded affects all subsequent analysis, it is recommended that these values be defined from the start.

Table 5-1 provides an abbreviated listing of all variables in the sample questionnaire, re-ordered for the purpose of analyzing these data as a basis for designing an I-E-C strategy. Also included is a listing of possible values to be excluded from statistical calculations. It can be argued that the category "don't
know" should be included in some cases (such as in cross-tabulations). Thus, the researcher is recommended to review carefully the list in Table 5-1 before deciding on values to exclude.

## III

## Frequency Distributions: A Preliminary Look at the Findings

The chief purpose of the first round of analysis is to familiarize the researcher with the data that has been collected. The easiest way to do this is to run frequencies (percentages) for every variable in the study (listed in Table 5-1). This process has the added advantage of revealing any (still uncoirected) out-of-range errors and allowing the researcher to recheck or reconsider the definitions of values to be excluded.

Frequency distributions contain large amounts of valuable information. They provide an overall idea of the opinions, attitudes, and beliefs of the audience which will aid in developing a project strategy. For example, what percent of respondents already know about family planning methods? What percent believe that children are an economic asset? What are the hours of the day when the greatest percent of the population listen to radio?

Also as part of the first round, it may be interesting to run cross-tabulations on some or all of the variables in the study by some key variable hypothesized to show considerable variance on these family planning and communication questions (for example, ethnic group, sex, or age).

Once the researcher has some feeling for the data, as well as for variation by ethnic group, sex, or other key variable, the in-depth analysis can begin.

## IV

## Appropriate Procedures for Analyzing the Sample Questionnaire

As discussed in Chapter Two, the types of information to be obtained from this audience research include:

1. An assessment of the current family planning situation (including current levels of knowledge and use of contraceptives)
2. Analysis of factors which relate to acceptance
(a) Sociodemographic
(b) Social psychological
(c) Variables related to family planning services
3. Most effective channels of mass and interpersonal communication for family planning.
All of the variables included in the sample questionnaire have been listed in summary form in Table 5-1; however, they have been re-ordered to reflect
the purpose of audience research and the different types of information it provides, as outlined in Chapter Two. This summary list is useful as a reminder of what data will be available for analysis.

The question remains, however, as to how to deal with this information. Unquestionably, some researchers will be more interested in certain aspects of the questionnaire, while others will have different concerns. There is no single format for analyzing these data. Nonetheless, in Tables 5-2 to 5-5, a series of "issues of interest" are listed for each of the different types of information provided by the survey (assessment of the current family planning situation, analysis of sociodemograplic and social psychological factors affecting family planning, etc.). This list of issues is intended to aid the researcher in identifying those questions that are of greatest interest.

In each instance, the "issue of interest" is also accompanied by the suggested statistical procedure for obtaining the desired information. Thus, once the researcher identifies the key points to analyze, he or she can select those statistical procedures that will provide such information. In this way, the researcher can avoid costly and unnecessary computer runs (or worse yet, hand tabulations) of information that is of little interest.

Since most researchers will want to get as much information as possible from their study without making it unduly tedious for potential readers, the following approach is suggested for synthesizing this sizable quantity of information into a digestable report. The areas to cover include the following.

## Assessment of the current family planning situation

The main information regarding knowledge and use of contraceptives can be obtained through a series of frequencies and cross-tabulations. The key questions to be answered about the current status of family planning among the target population are listed in Table 5-2, along with the suggested statistical procedures for obtaining the information.

## Analysis of factors which relate to acceptance

This section of the analysis is perhaps the most difficult because of:
(a) the quantity of hypotheses to test
(b) the different levels of measurement (categorical vs. continuous variables)
(c) the variety of possible definitions of "acceptance."

1. Hypotheses. The sample questionnaire provides data for testing both sociodemographic and social psychological variables in relation to acceptance. These variables are listed in Table $5-1$ and outlined again below. Even if the researcher thinks it is highly unlikely that a given variable is related to acceptance, he or she should put it to the test if the data are available.
2. Levels of measurement. If the relationship between two variables that

## Table 5-1. LISTING OF ALL VARIABLES IN SAMPILE QUESTIONNAIRE BY TOPIC AREAS.*

# Possible values to 

A. CURRENT FAMILY PLANNING SITUATION
be excluded

I-1. Knowledge of Concept of Family Planning (first question)
I-2. Knowledge of Concept of Family Planning (second question)

Knowledge of Contraceptives
$\mathrm{N}-1$. Knowledge of Pill
$\mathrm{N}-2$. Knowledge of IUD
$\mathrm{N}-3$. Knowledge of female sterilization
N -4. Knowledge of male sterilization
N-5. Knowledge of injections
N-6. Knowledge of condom
N -7. Knowledge of creams, jellies, foams
N-8. Knowledge of suppositories
$\mathrm{N}-9$. Knowledge of rhythm
$\mathrm{N}-10$. Knowledge of withdrawal
$\mathrm{N}-11$. Knowledge of diaphragm
$\mathrm{N}-12$. Knowledge of herbs, teas, etc.
$\mathrm{N}-13$. Knowledge of other
$\mathrm{N}-27$. Which method most reliable99

## Attitude

K-1. Attitude toward family planning
$\mathrm{K}-2$. Strength of family planning attitude: $\begin{aligned} & \text { approval }\end{aligned}$
$\mathrm{K}-3$. Strength of family planning attitude: $\quad 8,9$
K-4. Reason for disapproval 88,99
$\mathrm{K}-5$. Attitude of spouse toward family planning
Attitudes and Opinions about Pill

| 0-1. | Frequency--take the pill | 8,9 |
| :---: | :---: | :---: |
| 0-2. | If forgets pill one day | 8,9 |
| 0-3. | If forgets pill 3 or 4 days | 8,9 |
| 0-4. | Is the pill safe for most women? | 8,9 |
| 0-5. | In what way is the pill unsafe? | 88,99 |
| 0-6. | Would take pill or advise it | 8,9 |
| 0-7 | Reason: against taking pill | 88,99 |
| Attitudes and Opinions about IUD |  |  |
| P-1. | Where is IUD placed? | 8,9 |
| P-2. | How to tell if IUD is in place? | 8.9 |

[^3]
## Table 5-1. LISTING OF ALL VARIABLES IN SAMPLE QUESTIONNAIRE BY TOPIC AREAS (Continued).

Possible values to be excluded
A. CURRENT FAMILY PLANNLNG SITUATION (CONT'D).

Attitudes and Opinions about IUD (Cont'd)

| P-3. Side effects of IUD when inserted | 88,99 |
| :--- | :--- | :---: |
| P-4. Is IUD safe for most women? | $\mathbf{8 , 9}$ |
| P-5. Hould use IUD or advise it | 8,9 |
| P-6. Reason: against IUD | $\mathbf{8 8 , 9 9}$ |

Attitudes and Opinions about Female Sterilization
Q-1. Nature of female sterilization operation 8,9
Q-2. Effect of female sterilization on $\begin{gathered}\text { drivex }\end{gathered} \mathbf{8 , 9}$
Q-3. Effect of female sterilization on health 8,9
Q-4. What are hargiful effects of female steri- 88,99
Q-5. Would have female oterilization or advise 8,9
Q-6. Reason: against female sterilization 88,99
Attitudes and Opinions about Vasectomy
R-1. Nature of vasectomy operation 8,9
R-2. Effect of vasectomy on man's sex drive 8,9
R-3. Effect of vasectomy on man's health 8,9
$R-4$. What are harmful effects of vasectomy? 88,99
R-5. Would have vasectoury or advise it 8,9
R-6. Reason: against vasectomy 88,99
Atcitudes on Sex Education
CC-1. Boys: age to learn about sex 99
CC-2. Girls: age to learn about sex 99
CC-3. Attitude: sex education 9

## Use

$\mathrm{N}-14$. Has ever used pill
$\mathrm{N}-15$. Has ever used IUD
N-16. Has ever used female sterilization
$\mathrm{N}-17$. Has ever used male sterilization
$\mathrm{N}-18$. Has ever used injections
N -19. Has ever used condom
N -20. Has ever used cream, jellies, foam
$\mathrm{N}-21$. Has ever used suppositories
$\mathrm{N}-22$. Has ever used rhythm
N-23. Has ever used withdrawal
$\mathrm{N}-24$. Has ever used diaphragm
$\mathrm{N}-25$.. Has ever used herbs, teas, etc.
$\mathrm{N}-26$. Has ever used other
N -28. Current use of a family planning method
$\mathrm{N}-29$. Method currently using

# Table 5-1. LISTING OF ALL VARIABLES IN SAMPLE QUESTIONNAIRE BY TOPIC AREAS (Continued). 

Possible values to be excluded
A. CURRENT FAMILY PLANNING SITUATION (CONT'D)

## Use (Cont 'd)

| N-30. Time-has used current method | $\mathbf{8 8 , 9 9}$ |
| :--- | :---: |
| $\mathrm{N}-31$. Source of contraceptives | 8,9 |
| $\mathrm{~N}-32$. Non-usera: last method used | $\mathbf{8 8}$ |
| $\mathrm{N}-33$. Reason for abandoning method | $\mathbf{8 8 , 9 9}$ |

B. FACTORS RELATING TO ACCEPTANCE: SOCIODEROCRAPHIC

A-6. State, department
C-1. Marital status
(Pregnancy history-women only)
D-1. Number of living children
D-2. Number of male children
D-3. Number of female children
D-4. Nunber of children tho have died
D-5. Age of last child in months
D-6. Number of miscarriages
D-7. Number of (induced) abortiong
D-8. Current pregnancy status
D-9. Number of weeks since last period 88
D-10. Total number live births
D-11. Total number pregnancy losses
D-12. Total number pregnancles
D-13. Currently fertile?
D-14. Reason for infertility
(Number of children--men only)
E-1. Number of living children
E-2. Number of children who have died
EE-1. Sex of respondent
EE-2. Ethnic or racial group
EE-3. Language spoken at home
EE-4. Age of respondent
EE-5. Age of spouse 88
EE-6. Religious sect
$\begin{array}{ll}\text { EE-7. Degree of religiosity } & \mathbf{8 , 9}\end{array}$
EE-8. Literacy
EE-9. Respondent's facility for reading 9
EE-10. Spouse's facility for reading 9
EE-11. Ever attended school
EE-12. Last grade of school completed 99
EE-13. Spouse--ever attended school 8
EE-14. Spouse--last grade of school completed 88,99
EE-I5, Respondent has paying job
EE-16. Respondent 's current occupation
EE-17. Spouse has payíng Job
8
EE-18. Spouse's current occupation 88
EE. '9. Average monthly family income
EE. ? 4. Number of persons living in house

## Table 5-1. LISTING OF ALL VARIABLES IN SAMPLE QUESTIONNAIRE BY TOPIC AREAS (Continued).

Pmsaible valuea to be excluded
C. FACTORS RELATING 10 acceptance: SOCIAL PSYCHOLOGICAL

Reproductive Ideals
B-1. Best age--girl to marry 99
5-2. Best age--boy to marry 99
B-3. Lelugth of time before first child 77,99
B-4. Ideal number of children-for couples in 77,99 community
B-5. Previously thought--how many children
B-6. (Homen only) Previously worried about 8 accidental pregnancy
B-7. (Women only) Extent of worry-accidental 8,9
B-8. Ideal number of children--if just married $\quad \mathbf{7 7 , 9 9}$
B-9. Ideal number--boys 77,99
B-10. Ideal number--girls 77,99
B-11. What is "too many children"? 99
$\mathrm{B}-12$. What is "too few children"? 99
B-13. Opinion: large va, small family 9
$\mathrm{B}-14$. Reasons for favoring large family 88,99
B-15. Reasons for favoring small. fanily 88,99
$\mathrm{B}-16$. Ideal length of eime--between births 77,99
Desire for More Children

| F-1. Wante more children? | 9 |  |
| :--- | :--- | :---: |
| F-2. Reason: vants more children | 88,99 |  |
| F-3. Number of children--when respondent had | 88,99 |  |
|  | "enough" | $77,88,99$ |
| F-4. How many more children deaired ? | 8,9 |  |
| F-5. Spouse wants more children? | 88,99 |  |

Itportance of Having One or More Sons
$\mathbf{G - 1}$. Importance of having at least one son 9
G-2. If 4 daughters, would try for son? 9
G-3. If 3 daughters and 1 son, would try for $g$ 2nd son?

Awareness of Demographic Problem

| H-1. Population increasing? | 9 |
| :--- | :--- | :---: |
| H-2. Number of people--too many? | 9 |
| H-3. Rate of population increase | 9 |
| H-4. Action to avoid population increase? | $\mathbf{8 , 9}$ |
| $\mathrm{H}-5$. What action should be taken? | $\mathbf{8 8 , 9 9}$ |

Table 5-1. LISTING OF ALL VARIABLES IN SAMPLE
QUESTIONNAIRE BY TOPIC AREAS (Continued). QUESTIONNAIRE BY TOPIC AREAS (Continued).

Possible values to be excluded
C. FACTORS RELATING TO ACCEPTANCE: SOCIAL PSYCHOLOGICAL (CONT'D)

Husband-Wife Communication
J-1. Discusses family-related problems with $\begin{gathered}\text { spouse }\end{gathered}$
$\mathbf{J}-2$. Has discussed ideal number of children 8,9
J-3. Has discussed family planning with spouse
J-4. Last time discussed faitly planning uith apouse

88,99
J-5. Number children when first discussed family planning

Social Acceptability of Family Planning
L-1. Extent of approval for family planning-- $\quad 9$
L-2. Perception of attitude: aunt 8,9
$\begin{array}{ll}\text { L-3. Perception of attitude: uncle } & 8,9\end{array}$
L-5. Perception of attitude: mother-in-1aw 8,9
L-6. Perception of attitude: facher-in-law $\mathbf{8 , 9}$
L-7. Perception of attitude: brother $\quad \mathbf{8 , 9}$
L-8. Perception of attitude: mother $\mathbf{8 , 9}$
L-9. Perception of attitude: father 8,9
L-10. Perception of attitude: grandmother B,9
L-11. Perception of attitude: grandfather 8,9
L-12. Perception of attitude: best friend 8,9
L-13. Perception of attitude: doctor 8,9
$\begin{array}{ll}\text { L-14. Perception of attitude: teacher } & 8,9\end{array}$
L-15. Perception of attitude: priest $\quad \mathbf{8 , 9}$
L-16. Perception of attitude: president of $\mathrm{B}, 9$
L-17, Perception of attitude: closest neighbor 8,9
Popular Beliefs about Family Planning
M-1. Family planning goes against God's will 9
M-2. Family planning encourages infidelity g
M-3. Family planning encourages premarital sex 9
M-4. Teens will have sex relations anyway 9
Perceptions of Infant Mortality
W-1. Of 10 infants born, how many will grow up? 99
$\mathrm{W}-2$. Of 5 infents born, how many will grow up? 9
W-3. Greater or fewer infants die now 9
W-4. Woman should bear 4 to get 3 g
Effect of Pregnancy on Homan's Health
$X-1$. Harmful to have too wany children 9
$X-2$. Harmful to have children too close to- $\begin{aligned} & \text { gether }\end{aligned}$


# Table 5-1. LISTING OF ALL VARIABLES IN SAMPLE QUESTIONNAIRE BY TOPIC AREAS (Continued). 

Possible values to be excluded<br>D. FACTORS RELATING TO ACCEPTANCE: SERVICE-RELATED (CONT'D)<br>Distance to Fauily Planning Location<br>N-43. Most convenient family planning location 88,99<br>N-44. Time required to get to most convenient 888,999 family planning location<br>E. CHANNELS OF COMMUNICATION: MASS MEDIA

U-1. Have radio or access to one?
U-2 to U-25-- Hours at which respondent listens to radio
U-26. Frequency of listening to radio 9
U-27. Hour at which radio is turned on 88,99
U-28. Favorite radio station $\quad 88,99$
$\begin{array}{ll}\text { U-29. Favorite radio program } & 88,99\end{array}$
$\mathrm{U}-30$. Frequency of 1 istening to: music, songs $\mathbf{8 , 9}$
$\mathrm{U}-31$. Frequency of listening to: news $\quad \mathbf{8 , 9}$
$\mathrm{U}-32$. Frequency of listening to: soap operas 8,9
U-33. Frequency of listening to: sports $\quad 8,9$
U-34. Frequency of listening to: religious programs 8,9
U-35. Frequency of listening to: advice to home-makers 8,9
U-36. Frequency of listening to: advice on agriculture 8,9
U-37. Frequency of 1istening to: education/health 8,9
U-38. Ever heard fanily planning on radio? 8,9
U-39. Frequency: hears family planning on radio 8,9
Other Mass Media
$V-1$. Have TV or access to one
$V-2$. Frequency of watching TV 9
$V-3$ to $V-21--$ Hours at which respondent watches TV
V -22. Favorite TV program
88,99
$\mathrm{V}-23$. Ever heard of family planning on TV?
$\mathbf{V}$-24. Frequency: hears family planning on TV
8,9
$\mathrm{V}-26$. Frequency of reading newspaper 9
$\mathbf{V}$-27. Name of newspaper 88,99
$\mathbf{V}$-28. EV'r saw family planning in newspaper? $\quad \mathbf{8 , 9}$
$V-29$. Frequency: sees family planning in newspaper 9
$\mathbf{V}$-30. Are there magazines in town?
$V-31$. Frequency of reading magazines 9
V-32. Name of magazine 88,99
$\mathbf{V}$-33. Ever seen family planning in magazine?
8,9
$V-34$. Frequency: sees family planning in magazin: $\quad 9$
$V-35$. Is there a movie theater nearby?
$V-36$. Frequency: goes to movies 9
$\mathbf{V}$-37. Ever seen family planning at movie theater? 8,9
$V-38$. Ever seen pamphlet on family planning?
$V-39$. Number of family planning pasphlets has seen 88,99
$V$-40. Last time: saw family planning pamphlet 88,99
$V-41$. Ever seen family planning poster?
$V$-42. Where: saw family planning poster 88,99
V-43. Last time: saw family planning poster 88,99

## Table 5.1. LISTING OF ALL VARIABLES IN SAMPLE QUESTIONNAIRE BY TOPIC ARE SS (Continued).

Posaible values to be excluded

## F. CHANNELS OF COMMUNICATION: PERSON-TO-PERSON

T-1. Can women discuss family planning easily? ..... 9
T-2. Can men discusp family planning easily?9
T-3. Can husbands and wives discuss family planning easily? ..... 9
T-4. Has ever discussed fanily planning with: spouse ..... 8,9
T-5. Has ever discussed family planning with: wother ..... 8,9
T-6. Has ever diacuased family planning with: father ..... 8,9
T-7. Has ever discussed family planning with: aunt or uncle ..... 8,9
T-8. Has ever discussed family planning with: other female relatives ..... 8,9
1-9. Has ever discussed family planning with: other male relatives ..... 8,9
T-10. Has ever discussed family planning uith: close friends ..... 8,9
T-11. Has ever discussed family planning with: neighbors ..... 8,9
T-12. Has ever discussed famliy planning with: doctor ..... 8,9
T-13. Has ever discussed family planning vith: nurse ..... 8.9
T-14. Has ever discussed family planning with: miduife ..... 8,9
T-15. Has ever discussed family planning with: health promotor ..... 8.9
T-16. Has ever discussed family planning with: pharmacist ..... 8,9
T-17. Has ever discussed family planning with: priest ..... 8,9
T-18. Number of ,reople: discussed family plari- ning in past month ..... 99
T-19. Give or receive family planning advice? ..... 8,9
Desire to Learn More About Family Planning
DD-1. Desire to learn more about family planning
DD-2. Reasun: does not want more information ..... 88,99
DD-3. Attitude: public meeting on family planning ..... 8,9
DD-4. Attitude: home visit on family planning ..... 8,9
DD-5. Attitude: radio and TV on family planning ..... 8,9
DD-6. Attitude: written material on family planning ..... 8,9

Table 5-2. ASSESSMENT OF THE CURRENT FAMILY
PLANNING SITUATION.

| Issues of interest | Statistical procedures |
| :---: | :---: |
| What percentage of respondents have ever heard of family planning? | Combine I-1 and I-2 into a single variable; run frequencies |
| Are these differences in knowledge by some key variable (ethifc group, religion, sex)? | Cross-tabulations of knowledge (combine I-1 and I-2) by the key variables |
| What methods are best-known and how widespread 15 this knowledge? | Run frequencies for $\mathrm{N}-1$ to $\mathrm{N}-13$, 1 ist all in a single table in order of most-to-least frequently mentioned |
| What method is fudged most reliable (apart from sterilization)? | Run frequencips for $\mathrm{N}-27$ |
| What are the most common misconceptions or rumors concerning certain methods? | Run frequencies for $0-1$ to $0-5, \mathrm{P}-1$ to $\mathrm{P}-4, \mathrm{Q}-1$ to $\mathrm{Q}-4, \mathrm{R}-1$ to $\mathrm{R}-4$ |
| Which methods are most widely approved? Least approved? Why? | $\begin{aligned} & \text { Run frequencies for } 0-6,0-7, P-5 \text {, } \\ & P-6, Q-5, Q-6, R-5, R-6 \end{aligned}$ |
| What percentage approve of family planning? | Combine information from $\mathrm{K}-\mathrm{I}, \mathrm{K}-2$, and $K-3$ into a single 5 -point attitude scale; run frequencies |
| What are the chief reasons for disapproval? | Frequencies for K-4 |
| Do respondents and thei: spouses generally agree on family planning? | Cross-tabulation of $\mathrm{K}-1$ by $\mathrm{K}-5$ |
| What percentage of respondents are currently using family planning? | Frequencies of $\mathrm{N}-28$ |
| What percentage of respondents have ever used famlly planning? | Frequencies of $\mathrm{N}-28$ and $\mathrm{N}-32$ |
| What methods are most widely used? | Frequencies of $\mathrm{N}-29$ |
| On the average, how long have these people used family planning? | Frequencies of $\mathrm{N}-30$ |
| What are the chief sources of family planning? | Frequencies of N-31 |
| Are there differences in use by ethnic group or region? | Cross-tabulation of $\mathrm{N}-36$ by key variables |
| What percentage of respondents has ever tried the different methods and how widespread is this experimentation? | Run frequencles for $\mathrm{N}-14$ to $\mathrm{N}-26$; 11 st all in a single table in order of most-to-least frequently mentioned |
| What are the chief reasons for abandonang a family planning method? | Cross-tabulation of $\mathrm{N}-32$ by $\mathrm{N}-33$ |
| What are the prevalent attitudes toward sex education? | Run frequencies for $\mathrm{CC}-1, \mathrm{CC}-2, \mathrm{CC}-3$ |

Table 5.3. ANALYSIS OF SOCIODEMOGRAPHIC FACTORS AFFECTING FAMILY PLANNING.

| Issues of interest* | Statistical procedures |
| :---: | :---: |
| What are the characteristics of family planning acceptors (1.e., what sociodemographic variables relate to contraceptive use)? | Cross-tabulation of $\mathrm{N}-28$ by all sociodemographic variables of interest, which could include: <br> A-6. State or department <br> C-1. Marital status <br> D-1. (E-1) Number of living children <br> D-4. (E-2) Number of children who have died <br> EE-1. Sex of respondent <br> EE-2. Ethnic or racial group <br> EE-4. ABE of respondent** <br> EE-5. Age of spouse** <br> EE-6. Religious sect <br> EE-7. Degree of religiosity <br> EE-8. Literacy <br> EE-9. Respondent's facility for reading <br> EE-10. Spouse's facility for reading <br> EE-11. Ever attended uchool <br> EE-12. Last grade of school completed <br> EE-13. Spouse ever attended achool <br> EE-14. Spouse last grade completed <br> EE-15. Respondent--paying Job <br> EE-16. Respondent's current occupation <br> EE-17. Spouse--paying job <br> EE-18. Spouse's current occupation <br> EE-19. Average monthly family income (or divide this by EE-20 to get per capita monthly income) |

[^4]
# Table 5-4. ANALYSIS OF SOCIAL PSYCHOLOGICAL FACTORS AFFECTING FAMILY PLANNING. 

| Issues of interest | Statistical procedures |
| :---: | :---: |
| What social poychological factors represent obstacles to the acceptance of family planning? | Cross-tabulations of $\mathrm{N}-28$ by each of the variables or indices listed below (which may be collapsed to 4 or less categories as necessary) : <br> Ideal family size: B-4 or B-8 <br> Concern for pregnancy and childbearing: $B-5, B-6, B-7$ <br> Attitude covard spacing: $\mathrm{B}-3, \mathrm{~B}-16$ <br> Importance of having sons: G-1, G-2, G-3 <br> Awareness of demographic problem: H-1, $\mathrm{H}-2, \mathrm{H}-3$ <br> Husband-uife commenication: s-1, J-2, $\mathrm{J}-3$ <br> Social acceptability of family plan- $\text { ning:* } \mathrm{L}-2 \text { to } \mathrm{L}-17$ <br> Religions/moral attitudes toward family planning: $\mathrm{M}-1, \mathrm{M}-2, \mathrm{M}-3$ <br> Perception of infant mortality:** $W-1$, $\mathrm{U}-2, \stackrel{\sim}{2}+\mathrm{H}-4$ <br> Auareness of health effects: X-1, X-2 <br> Perceived economic value of children: $Y-1, Y-2, Y-3, Y-4, Y-5$ <br> Children and security in old age: $Z-1$, $z-2, z-3$ <br> Aspirations for one's children: $\mathrm{BB}-1$, $\mathrm{BB}-2, \mathrm{BB}-4, \mathrm{BB}-5$ <br> Degree of informal communication:*** T-4 to T-17 |
| Which of these social psychological obstacles are most important is tinis country (or atudy area)? | Ascertain that all the above variables and indices are in continuous form; define family planning acceptance in cont inuous form. Obtain Pearson correlations and/or use multiple regression. |

[^5]Table 5-5. ANALYSIS OF SERVICE-RELATED VARIABLES AFFECTING FAMILY PLANNING.

| Issues of interest | Statistical procedures |
| :---: | :---: |
| What degree of contact has the target population had with fauily planning program activities? | Run frequencien for $S-1, S-2, S-5, S-6$, 5-9, S-10 |
| What has been the reaction to these contacts with program activities? | Run Erequencies for $5-3, S-4, S-7, S-8$, 5-11, 5-12 |
| To what extent does the target population know where to obtain contraceptives, and what are the most commonly mentioned sources? | Run frequencies for $\mathrm{N}-34$ to $\mathrm{N}-42$ |
| How convenient are family plauning service locations to potential users? | Run frequencies for N-43 and N-44 |
| Does the degree of contact with program activities or knowledge of contraceptive sources differ on some key variable (sex, ethnic group, etc.)? | Construct index for number of contacta (combining S-1, S-2, S-5, S-6, S-9, $S-10$ ) and for knowledge of sources (suming the number of "yes" responses on N-34 to $\mathrm{N}-42$ ); cross-tabulate these indices by the key variables. |

are both categorical is being tested, the logical choice of procedure is crosstabulation.

If, on the other hand, both variables are in continuous form, the researcher has several options.
(a) If each variable has four or less categories, use cross-tabulation
(b) If one or both have numerous categories, "collapse" these categories to four or less, and use cross-tabulation
(c) If one or both have numerous categories, determine the correlation between these variables rather than run a cross-tabulation (this latter procedure provides a convenient "summary" measure, but often means a loss of information).
3. Multiple items to measure a single social psychological factor. As shown in Table 5-1, most of the social psychological factors are measured by a series of three or four relevant questions. This measurement raises an additional problem as to whether each separate item should be tested in relation to family planning acceptance or combined into an index and then tested in regard to family pisnning acceptance.

The construction of indices has the great advantage of synthesizing this large amount of available data. By contrast, the testing of every variable becomes very tedious; readers of the final report may be so overwhelmed by small details that they lose sight of the main findings.

Thus, it is highly recommended that a single index be constructed for each social psychological factor.* This index can be made by combining the responses to the three or more questions on a given topic into an index score. For example, the index for "husband-wife communication" could be constructed so that it would range from " 0 " to " 3 ," with one point given for each "yes" answer to the following: $\dagger$

J-1: Has discussed family-related problems with spouse
J-2: Has discussed ideal number of children with spouse
J.3: Has discussed family planning with spouse.

The completed indices will have three, four, or five categories. This result is advantageous in that the indices can then be used in either cross-tabulations or correlations.
4. Definition of acceptance of family planning. This issue is both substantive and methodological. On the substantive side, the definition may depend on the current family planning situation in the country and the goals of the family planning program. For ex.mple, in the 1976 audience research done in. rural areas of Guatemala, there had been little previous promotion and iittle availability of contraceptives, so that actual use was predictably low. Thus, much of the analysis of "acceptance" was done in terms of the fivepoint attitude-towards-family-planning scale. By contrast, in a country where contraceptive use is fairly high, current use should be an integral part of the definition of "acceptance."

On the methodological side, it is preferable to have acceptance defined as a continuous variable, if possible. In this form, it can eventually be used in a multiple regression procedure, to determine the relative importance of the different sociodemographic and social psychological factors in the acceptance of family planning.

However, in some cases the single most important concern is current use of contraceptives, which is clearly a categorical variable ("yes," "no").

The two definitions of "acceptance" are included below for possible use in the analysis. Each researcher will want to select the one which seems most

[^6]
## Table 5-6. ASSESSMENT ON MASS AND INTERPERSONAL CHANNELS OF COMMUNICATION FOR FAMILY PLANNING.

| Issues of interest | Statistical procedures |
| :---: | :---: |
| What are the potentially most effective mase media for reaching the target population (i.e., what percentage of respondents have access to each media and with what frequency)? | Run frequencies for $\mathbf{U}-1, \mathrm{U}-26, \mathrm{~V}-1, \mathrm{~V}-2$, $v-25, v-26, v-30, v-31, v-35, v-36$ |
| What are the media habits and preferences of the turget population (which would suggest the best stations, programs, times, etc., to reach the audience)? | Run frequencies for $\mathbf{U}-2$ to $\mathbf{U - 2 5}, \mathrm{U}-27$, $\mathrm{U}-28, \mathrm{U}-29, \mathrm{U}-30$ to $\mathrm{U}-37, \mathrm{~V}-3$ to $\mathrm{V}-21$, $\mathrm{V}-22, \mathrm{~V}-27, \mathrm{~V}-32$ |
| To what extent have family planning messages used in the past reached the target population? | Run frequencies for $\mathrm{U}-38, \mathrm{U}-39, \mathrm{~V}-23$, $\mathrm{V}-24, \mathrm{~V}-28, \mathrm{~V}-29, \mathrm{~V}-33, \mathrm{~V}-34, \mathrm{~V}-37$, $v-38, v-39, v-40, v-41, v-42, v-43$ |
| In terms of interpersonal communication, with whom are respondents most likely to have discussed family planning? | Run frequencies for T-4 to T-7; list in rank order of importance |
| To what extent is family planning a difficult subject to discuss for this population? | Run frequencies for $\mathrm{T}-1$ to $\mathrm{T}-3$ |
| On the average, with how many people have the respondents discussed family planning in the past month? | Run frequencies for T-18 |
| What are the characteristics of family planning opinion leaders? | Cross-tabulation of T-19 by the list of sociodemographic variables in Table 5-3 |
| What percentage of the target population wants toore information on family planning? How would they like to receive it? | $\begin{aligned} & \text { Run frequencies for } D D-1, D D-3, D C-4 \text {, } \\ & D D-5, D D-6 \end{aligned}$ |
| What are the main reasons for not wanting more family planning information? | Run frequencies for DD-2 |

appropriate or to create a different definition more suited to particular circumstances.
(a) Attitude and use are treated separately as categorical variables. Both variables are used in their categorical form and tested with all sociodemographic and social psychological factors. This definition has the advantage of providing clear-cut evidence of the relationships by categories. It has the disadvantage of not permitting a final ranking of the order of importance of different factors; also, the results for each factor must be "presented twice" (once for attitude, once for use).
(b) Attitude and use are treated separately as continuous variables. Attitudes toward family planning is used as a five-point scale. "Use" is expanded into three categories: (1) never used, (2) has used but abandoned method, and (3) currently using. These two variables are then tested with all sociodemographic and social psychological factors.

This definition has the advantage of allowing for a ranking of importance of the different factors in each instance, using multiple regression. Its disadvantage is that results for each factor must still be "presented twice"; also, in rigorous terms, neither variable is strictly continuous.
The decision as to which of these options (or possibly others) to use rests with the individual researcher, and depends in part on the purpose of the research and the intended audience. For example, in a country where family planning acceptance is fairly widespread and the research report needs to be short and concise, the best option might be simply to report the relationship of each different variable to contraceptive use.

Summary. Before attempting to identify factors that affect family planning acceptance, the researcher will need to construct indicus for the social psychological factors as well as to define "family planning acceptance" and its level of measurement.

As discussed above, the sample questionnaire provides data on three types of factors that may relate to family planning acceptance: sociodemographic, social psychological, and service-related. Suggested plans of analysis for each type are presented in Tables 5-3, 5-4, and 5-5, respectively.

## Presentation of data on mass and interpersonal channels of communication

The analysis of the data is relatively simple in comparison to the above section on factors affecting the acceptance of family planning. It mainly involves frequency data and a few cross-tabulations. The main questions to be answered are listed in Table 5-6, along with the suggested statistical procedures for obtaining these answers.

## Notes

> ${ }^{1}$ Nie, Norman et al. Statistical Package for the Social Sciences (2nd ed.) (New York: McGraw Hill, 1975).

${ }^{2}$ Barr, Anthony J. et al. A User's Guide to SAS 76 (Raleigh, N.C.: Sparks Press, Inc., 1976).

[^7]
## Chapter Six

## APPLYING THE RESULTS TO AN I-E-C STRATEGY

The final and most important step in audience eesearch is to use the results in designing (or modifying) an I-E-C strategy. The end product of audience research should be more than an academic report with graphs and tables. Rather, it should indicate the implications of the findings for future I-E-C activities and should provide specific recommendations for the communication program. This result is especially true when the research has been carried out by a special research team or evaluation unit, with the implementation of the results being the responsibility of the I-E-C Division of a given organization.

It should be stressed that the research findings do not in themselves provide the "perfect formula" for an I-E-C program. One cannot, for example, translate the percent distributions obtained from this research into the number of spots needed on $x$ number of channels to motivate $x$ percent of the population to use family planning. Rather, the findings provide information about several different aspects of the I-E-C program-content, channels, audience characteristics, etc.-which can aid program designers in making appropriate choices and decisions.

This final chapter illustrates the way in which specific findings can be used to design or modify an I-E-C strategy. Key "issues" have been selected from the items listed in Tables 5-2 to 5-6, and hypothetical "research findings" are given to illustrate the types of recommendations that can be derived from the findings.*

[^8]The "research findings" presented below may be quite different from what the reader would expect to find if he or she were to carry out this type of audience research in his or her own country or state. Nonetheless, this section is included in order to provide a concrete example of how research findings can be translated into recommendations for an I-E-C program.

Again, it should be stressed that the findings themselves do not provide instantaneous answers or fixed formulas. Rather, the results require careful interpretation, with special attention to what each piece of information means in terms of the overall I-E-C program. Once information is available on the different aspects, then the researcher can begin to combine the different pieces of information into a comp:ehensive strategy. The different categories of information that will be useful in this process include the following.

## A. Current family planning situation

- If the audience research yielded the following results (left column), one could derive specific program implications (right column) as shown below:


## Research Findings

1. Ninety percent of the target audience have heard about family planning, but only forty percent can name at least 3 contraceptive methods.
2. The best-known methods are the pill, condoms, and rhythm; the majority do not know of the more effective methods such as voluntary contraceptive surgery or the IUD.
3. The majority ( 75 percent) believe that the pill is the most reliable method. However, many report that it can cause cancer or seriously harm a woman's health. There are no damaging rumors about inc stater methods that are mentioned by more than a few respondents.
4. The vast majority of those who have heard of family planning approve of it ( 80 percent). Among those who disapprove,

## Program Implications

There is a need for more information on the various contraceptive menods.

Special attention should be given to iniorming and educating the public about voluntary contraceptive surgery and the IUD.

The program should try to counter the rumors regarding the pill, by emphasizing its effectiveness and the large numbers of women who use it safely, and stressing the availability of different methods and the need to find the one which "suits you best."

Same as above; also, emphasize that family planning improves health by preventing closelyspaced or excessive preguancies.

## Research Findings

Program Implications
the chief reason is because it could afı',l a woman's health.
5. Although the majority approve of family planining, only 25 percent of the fertile-aged women are using contraceptives at the time of the interview. Another 25 percent have experimented with contraceptives, especially the pill, but have stopped taking it for fear of health effects.

The program needs to determine if ther are other obstacles to family planning use, in addition to fear of negative effects on health (see social psychological obstacles in section $\mathbf{C}$ below).

## B. Sociodemographic factors and acceptance of family planning

## Research Findings

1. The women are much more favorable than men toward family planning.
2. Acceptance of family planning (hoth attitude and use) is higher among couples with 3 or 4 children than among those with less than 3 or 5 or more.
3. Simildrly, acceptance is higher among women 25 to 34 than among younger or older women.
4. People in the western region of the country are less favorable to family planning than those in the eastern region, even though the two groups are similar in ethnic and socioeconomic characteristics.

## Program Implications

Special programming should be designed that would be directed toward and would appeal to men; it should be broadcast at times when men are able to listen.

Communications should emphasize the desirability of spacing children from the start; also, that older v.omen should protect themselves against unwanted pregnancy that coulc he harmful to their health.

Same as above.

I-E-C efforts in this geographical area should be intensified; at the same time, efforts should be made to identify obstacles unique to this area.

## C. Social psychological factors and acceptance of family planning

## Research Findings

Contraceptive use is higher among:

1. Couples who have discussed desirable family size than those who have not.
2. Women who worry about accidental pregnancy than those who passively accept it.
3. Those who consider that it is easier to care for a small rather than a large family.
4. Those who discuss family planning with friends or neighbors than those less apt to discuss it.
5. Those with greater aspirations for their children than those with less aspirations.

## Program Implications

The content of communications should be designed in accord with these findings. Sample messages include the following:
"Do you know how many children your spouse wants to have? Fird out so you too can plan your family."
"Today smart women have their children when they want them, when they decide to have them. Think about it . . . the decision is yours."
"With the high cost of living today, many couples are grateful for family planning. If you too want the benefits of a small family, consult your local family planning center."
"One good way to learn more about family planning is to ask someone who uses contraceptives. Ask your friends to find out more."
"All parents share one wish for their children: that they can get ahead in life. Many parents are finding that it's easier to help their children if they don't have too many. That is one reason why family planning is becoming more and more popular every day."

## D. Service-related factors and acceptance of family planning

## Research Findings

1. The use of family planning is twice as high among women who have attended a family planning talk than among others; yet only 20 percent of the tar. get population have had this contact.
2. Women who have received a home visit on family planning are no more likely than others to be favorable toward or to use family planning.
3. Women who have attended public meetings report them to be useful because they allow women to 'lear about others' experiences. In contrast, those who have recieved home visits objected to being "singled out."
4. Only 50 percent of the respondents can name at least one location at which to obtain contraceptives. The percentage is even lower among those in the western region.
5. Most people mention health clinics as the source of contraceptives, yet they do not like using this scrvice. Few people mention community-based distribution, yet those who did spoke favorably of ic.

## Program Implications

Efforts should be made to expand this interpersonal component of the communication program.

The activity should be reconsidered and resources should perhaps be channelled into other more productive activities.

Same as above (although these descriptive data provide an explanation of the above phenomenon, to be taken into account in future programs).

Future communications should stress the locations at which family planning information and services are available, and additional messages should tie programmed for the western region.

Messages shculd stress that there are various outlets for obtaining family planning services. Also, interpersonnel communication efforts should be intensified in areas with CBD programs for greater use of these services.
E. Mass media and interpersonal channels for reaching the target population

## Research Findings

1. A total of 85 percent of the target audience own a radio, whereas 15 percent own or have access to TV. Also, while literacy is 60 percent, only 20 percent have frequent access to newspapers or magazines.
2. The most popular radio stations, in order of importance, are
3. 
4. $\qquad$
5. etc.
6. The target population reports a preference (in this order) for:
7. Music
8. Soap operas
9. News
10. Homemakers' program
11. etc.
12. Peak listening hours are:
13. 7-8 a.m.
14. $12-2 \mathrm{p} . \mathrm{m}$.
15. 6.7 p.m.
16. Previous family planning communication programs have reached the following percent of people via the different channels:

$$
\text { Radio. . . . . . . } 55
$$

TV. . . . . . . . 5
Newspapers. . . . . 11
Magazines . . . . . 4
Posters . . . . . . 7
Pamphlets . . . . . 10

Program Implications
The potentially most effective medium for reaching the target audience is radio. Since the majority are literate, one could complement radio programming with simple posters and pamphlets. However, TV, newspapers, and magazines will not be effective in reaching the target group.
Radio programming should be concentrated on the most popular stations.

Radio spots should be broadcast in cornection with preferred programming.

Scheduling should also take listening times into consideration.

Since none of the channels have even begun to have their potential effect, further I-E-C is indicated (especially via the channels described earlier as having the greatest potential reach).

Research Findings
Family Planning Workers at Clinic . . 40
Family Planning Workers- Home Visit . ..... 15
Family Planning Workers-

$$
\text { Public Meeting. . . } 20
$$

Other . ..... 7
6. Sixty percent of the population would like more information on family planning, and the preferred ways to receive it are:

1. Public meetings with a family planning worker
2. Pamphlets describing the methods
3. Radio programs or spots.

Program Implications

There is still a felt need among the target population for I-E-C on family planning; this need should be met (to the extent possible) through public meetings, pamphlets, and radio programs.

## Conclusion

In summary, percent distributicns and cross-tabuiations alone do not provide a very useful blueprint for designing or modifying an I-E-C program. Rather, each must be interpreted in light of its significance to the overall I-E-C program. In drawing together this body of information provided by the audience research, the researcher can make informed decisions regarding:

Content of the messages
Necessary information to be diffused
Motivational themes to be emphasized
Obstacles to be addressed
Rumors to be combated

## Audience characteristics

Special subgroups to be reached
Sociodemographic traits that may affect acceptance

## Channels to be used

Potentially most effective media
Most popular programs, stations, listening times
Indicated types of interpersonnel activities.
The ultimate value of diagnostic research depend's not only on the care with which the questionnaire is designed, the fieldwork conducted, or the analysis completed. The final step in the process is to present the findings in
intelligible form and to draw the implications of the findings for a communications program. Without this final step, there is a strong possibility that the research results will never be incorporated into the ongoing programs and little will be gained for all one's efforts. In contrast, the researcher who provides a concrete information base for a program's I-E-C workers as well as specific suggestions regarding content, audiences, and channels will be performing a valuable service to the organization as a whole. Such a researcher is likely to have the satisfaction of seeing his or her research applied to ongoing and future communication programs.


[^0]:    *This use of the word "pretesting" should not be confused with the "pretesting of a questionnaire," that is, the standard procedure of administering a questionnaire to a small number of respondents prior to the interviewing for the actual study, to determine if all the questions are readily understood; the questionnaire is then revised if necessary. Indeed, those who use the sample questionnaire included herein will want to "pretest" it to make sure that the wording and concepts are appropriate to local circumstances (as described in Chapter Four).

    In contrast, pretesting commmications refers to the process of assessing an audience's reaction to, and comprehension of, a given communication (radio or TV spot, pamphlet, poster, etc.) before it is produced in final form.

[^1]:    *Organizations interested in focusing on leaders, adolescents, or other special groups might use the methodology outlined in this manual for studying their target populations, but should modify the questions in the sample questionnaire to fit their own interests.

[^2]:    - For coding and tabulation purposes, the questions on use are numberad from 14 to 26; example: use of p111 - 14, use of IUD - 15, ...use of other - 26.

[^3]:    * The numbers on this list correspond to the questionnaire in Chapter Three.

[^4]:    *If contraceptive use is very low, the researcher may wish to focus on attitude instead of actual use. In general, however, use is the key concern.
    **If both men and women are interviewed, the reaearcher may prefer to tabulate age of husband (be it a alale respondent or a female respondent's husband) and age of wife (be it a female respondent or a male respondent's uife) rather than of respondent and spouse, since the latter tends to obscure the effect of sex of the respondent. This may also be done for the literacy and education variables.

[^5]:    *Recommendation for constructing this index: Calculate the proportion of people on the list $\mathrm{L}-2$ to $\mathrm{L}-17$, who would approve of family planning (ex.: 8 of $16=$ 0.50 ). "Not applicable" responses should be excluded from the denominators (ex.: a respondent who did not have a grandmother or grandfather would have a total of 14 for the denominator; if 8 people vould approve, the proportion would be 8 of 14 , or 0.57 ). These calculations can all be done by computer.
    **Recommendation for constructing this index: Give one point for each of the following answers:

    To W-1. 8 or less will live
    To W-2. 4 or less will live
    To W-3. More die now than before
    To H-4. Women should bear 4 to get 3.
    The resulting index ranges from 0 to 4 , with 4 indicating atrong perceptions of infant mortality.
    **ARecomendation for constructing this index: Follow same procedure as for index of social acceptability of family planning.

[^6]:    *Those with experience in factor analysis may wish to construct an index by running a factor analysis of all variables under question, determining which items group together ("load high") on a single concep", and possibly discarding those which do not load on any factor, thereby obtaining the social psychological indices to be tested. For a concrete example of this, see J.T. Bertrand, Maria Antonieta Pineda, and Fidel Enrique Soto, Communicating Family Planning to Rural Guatemala (Chicago: Community and Family Study Center, The University of Chicago, 1978), Chapter Two.
    $\dagger$ "Follow-up questions" that are only asked of some of the respondents, according to their response to the previous question, should not be included in indices. They tend to bias the index by automatically "lowering" the index scores of people who were not asked the question.

[^7]:    ${ }^{3}$ Elkins, Henry G. Mini-tab Edit, Mini-tab Frequencies and Mini-tab Tables: A Set of Interrelated Statistical Programs for Small Computers (Chicago: Community and Family Study Center, The University of Chicago, 1971).

[^8]:    * For an account of this implementation process in an actual family planning program, see Jane T. Bertrand, Maria Antonieta Pineda, and Fidel Enrique Soto, Communicating Family Planning to Rural Guatemala (Chicago: Community and Family Study Center, The University of Chicago, 1978).

