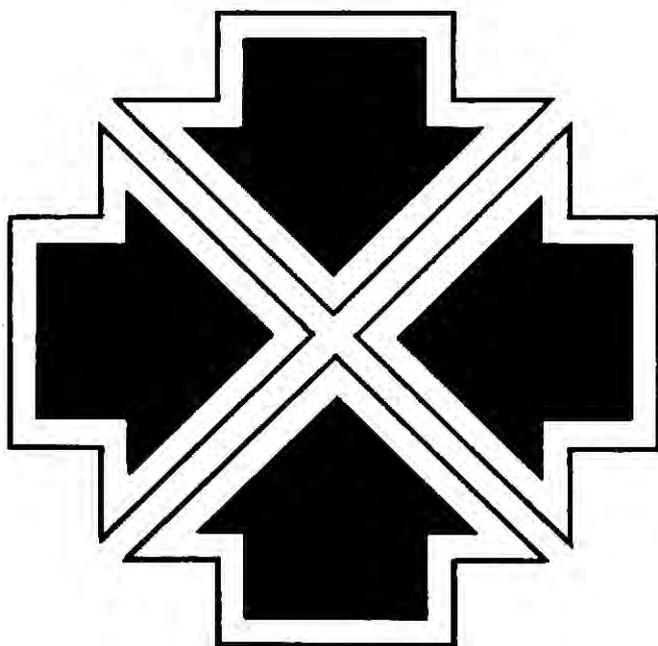


**A SYNTHESIS OF POPULATION
COMMUNICATION EXPERIENCE**

PAPER 6

**PROFESSIONAL AND TECHNICAL INFORMATION
FOR POPULATION PROGRAMS**

**David J. Radel
Sumiye Konoshima**



**West Center
West Communication Institute**

THE EAST-WEST CENTER—officially known as the Center for Cultural and Technical Interchange Between East and West—is a national educational institution established in Hawaii by the U.S. Congress in 1960 to promote better relations and understanding between the United States and the nations of Asia and the Pacific through cooperative study, training, and research. The Center is administered by a public, nonprofit corporation whose international Board of Governors consists of distinguished scholars, business leaders, and public servants.

Each year more than 1,500 men and women from many nations and cultures participate in Center programs that seek cooperative solutions to problems of mutual consequence to East and West. Working with the Center's multidisciplinary and multicultural staff, participants include visiting scholars and researchers; leaders and professionals from the academic, government, and business communities; and graduate degree students, most of whom are enrolled at the University of Hawaii. For each Center participant from the United States, two participants are sought from the Asian and Pacific area.

Center programs are conducted by institutes addressing problems of communication, culture learning, environment and policy, population, and resource systems. A limited number of "open" grants are available to degree scholars and research fellows whose academic interests are not encompassed by institute programs.

The U.S. Congress provides basic funding for Center programs and a variety of awards to participants. Because of the cooperative nature of Center programs, financial support and cost-sharing are also provided by Asian and Pacific governments, regional agencies, private enterprise and foundations. The Center is on land adjacent to and provided by the University of Hawaii.

THE EAST-WEST COMMUNICATION INSTITUTE concentrates on the role of communication in economic and social development and in the sharing of knowledge across cultural barriers. The Institute awards scholarships for graduate study in communication and related disciplines, primarily at the University of Hawaii; conducts a variety of professional development projects for communication workers in specialized fields of economic and social development; invites Fellows and visiting scholars to the Center for study and research in communication and to help design projects; offers Jefferson Fellowships for Asian, Pacific, and U.S. journalists for a semester at the Center and the University of Hawaii; conducts and assists in designing and carrying out research; arranges conferences and seminars relating to significant topics in communication; assembles relevant communication materials with emphasis on Asian and Pacific material and makes these available for students, scholars, and practitioners at the Center and elsewhere; and publishes papers, reports, newsletters, and other materials emanating from the above activities.

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July 1977

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ABSTRACT

This paper reviews technical publication programs, libraries, and other activities that produce, store, and distribute professional and technical information in support of population/family planning programs, and discusses some of the key audiences and program uses for this type of information. To meet professional/technical information needs, a large number of relevant activities have been developed in the population field, including "in-house" libraries, special clearinghouses, and information analysis centers that prepare "state-of-the-art" compilations. In addition, several countries have initiated programs in research utilization. The authors trace the development of networks linking various population information sources at national, regional, and global levels and examine the several bibliographic retrieval systems (mainly developed at U.S. universities) that search computerized data bases and endeavor to serve the needs of developing country programs.

The authors identify gaps and problems in current population information services such as uneven distribution of information, inadequate information about information, the need for transformation of information for certain key audiences, and excessive dominance of academic styles and approaches. The paper concludes with some guidelines for a comprehensive population information service.

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SERIES PREFACE

In 1970, the East-West Communication Institute undertook to develop and carry out a special program, involving numerous activities in the area of population and family planning communication under a major institution building grant from the United States Agency for International Development (USAID). Its activities for the past six years have included research; the development of innovative professional development activities for family planning communication specialists; international conferences and workshops; a variety of information sharing activities and services; and a large publications program that has produced: a population/family planning communication newsletter, research case studies, conference reports, an inventory of family planning communication activities and needs in 20 countries, a series of reports on donor and technical assistance agencies in the field, reference tools on sources of population information and materials, and 12 modules for family planning communication training.

As a final activity in its six-year program in population communication, the Institute has undertaken to publish a series of 11 papers which summarize developments in population communication over the last several years. The Synthesis Papers, as they have come to be called, cover the various public-oriented components of population/family planning communication programs--formal, in-school population education; education for adults and out-of-school youth; public information activities; use of mass media; and field extension programs--as well as the organizational and administrative concerns of national family planning programs including training for family planning communication personnel; the operation and strategies of family planning programs; the conduct and utilization of program-related research; professional and technical information services in support of population activities; and the integration of family planning with other development sectors. In addition, two of the papers survey the international and regional activities that have

had a significant impact on the overall development of national family planning programs and activities: technical and economic assistance, and meetings and conferences.

The papers are written by experts in the field--people who have had close personal involvement with the development and evolution of national and international programs over the years. In these papers, the authors have attempted to address several major questions: How have population communication programs developed? What has been accomplished? What has been learned? What do past experiences suggest for future efforts?

The Synthesis of Population Communication Experience Project was planned and initiated by Dr. Robert P. Worrall, who directed the East-West Communication Institute's activities in population communication from the beginning of the program in 1970 until he left in July 1976 to become Vice President of the Population Reference Bureau. Under his leadership, the Institute established contact with people in 133 countries and territories and involved in its programs more than 500 middle- and upper-level specialists in information, education, and communication.

Mr. Lyle Saunders, former Ford Foundation Program Officer in Population was a Visiting Researcher at the Institute from November 1975 to November 1976. During that year he was closely involved in the planning and implementation of the project. He has continued to serve as special advisor and consultant to the project, and has been one of the two substantive editors of the Synthesis Papers.

Dr. James R. Echols, former President of the Population Reference Bureau and now Population Communication Consultant to several organizations, has also served as Project consultant and as the other substantive editor for the papers.

Barbara Yount, Writer/Editor of the Institute's IEC Newsletter, which under her editorship grew from a 4-page to a 28-page quarterly newsletter reaching 8,000 people, has been general editor of the series.

Millicent Sanchez assisted the general editor with the copyediting and the seemingly never-ending bibliographic work such a project requires.

Kay Garrett, EWCI Publications Officer, has been responsible for the design, production, and distribution of the series.

Alison Miura, Karen Katayama, and Roberta Morgan typeset the papers; Jill McEdward and Louise Good cheerfully helped with the volume of proofreading.

Shana Hurst has served as Secretary to the Project since 1975 and has taken care of a million necessary details.

To all of these people, including the writers themselves, I owe an immense debt of gratitude for their time, effort, and dedication to the Synthesis Project.

Elizabeth Buck
Assistant Director for
AID Activities

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CHAPTER 1

Introduction: Professional/Technical Information Services and Population Communication Programs

Frequently, technical publication programs, libraries, and other activities that produce, store, and disseminate information for professional and technical audiences are not treated as part of an overall population communication program. The communication arm of a population program frequently sees various "public" audiences as the key groups to be reached--and rightly so--but there is often a failure to identify the full range of audiences both within the program and beyond who require information in order to participate in or cooperate with the program. Besides the general public, many other audiences are important to the success of a population program: policy-makers, various professional groups, government officers, etc. Often these audiences require what is being called in this paper professional/technical information, that is, they need information that is relevant to their professional responsibilities, information that helps to link their present concerns and professional goals with population matters.¹

In practice, of course, there is no hard and fast line that distinguishes between this kind of information and the factual information that might be conveyed to the public by the family planning program regarding, for instance, the relative effectiveness and safety of different contraceptive methods. Indeed, the population communicator often needs access to technical information, which can then be rewritten as simplified, focused messages for the general public. Although a continuum exists--from highly technical information understandable to specialists at one end to very general information understandable to nearly everyone at the other end--there are important differences between the ways the two ends of the continuum have been traditionally handled.

Simplified information for the general public--be it in the form of mass media materials or a talk given by a fieldworker--is considered the domain of communication specialists, whereas

technical information for the professional or program official is considered the domain of the information specialist (librarian, information officer, information scientist). Although some population programs have begun to bring these two approaches closer together or at least are beginning to treat both as important elements of the program, typically the area of professional/technical information is given scant attention by programs. Instead, it is often a local university or the office of an international agency that is involved in the area. This is understandable, of course, since this type of information is what universities and international agencies generate and use in their own work and consequently they can most readily share it with others as well. In addition, the kinds of people that these types of organizations typically work with--policy-makers, skilled professionals, and other national elites--are the very ones who can themselves use professional/technical information in their work.

This division of labor is not all bad, of course, since it does involve those who are closest to the production of certain forms of technical/professional information with its dissemination. There are two major problems with this strict dichotomy, however. 1) The information disseminated by universities and international agencies tends to be suitable for only a very small portion of the audiences that could make good use of professional/technical information. For example, university research centers often produce highly technical research reports that are suited only to the needs of other researchers. International agencies, on the other hand, are often more oriented to program problems and their solutions than are those who prepare research reports, and typically, they orient their informational materials to cross-national audiences and issue them in an "international language," generally English. This limits both their applicability to a particular country's situation and the degree to which they can be understood and used by anybody except highly educated elites.

2) Neither of these activities is included under the umbrella of one basic population communication strategy. If they were, there would be benefits to both areas of work. Both are (or should be) conveying information to various audiences in order to gain their cooperation with and participation in the program. There is a natural continuum to the information conveyed by the two approaches. Practitioners of each would benefit from closer interaction with the other. Those concerned with the dissemination of professional/

technical information, who tend to rely on a limited range of traditional dissemination methods, would be exposed to new methods through contact with communicators. In turn, communicators would benefit from access to technical information that can be transformed for dissemination to their "traditional" audiences. The program as a whole would be improved through the development of a unified approach to all audiences whose informed participation and support are crucial for its success. Rational planning that involves all audiences would make better use of scarce resources. Perhaps the most important contribution of this merger to professional/technical information would be the increased application of communication theory and experience to its production and dissemination activities. This deficiency, as will be shown in a later chapter, is one of the major weaknesses in professional/technical activities today.

The full integration of the two approaches will be difficult to achieve because of the different professional backgrounds and allegiances of the practitioners. The authors feel, however, that such integration should be a goal of population programs (and other development programs). There will always be the need for certain special skills for each approach--for instance, book cataloging or scriptwriting--thus, we are not thinking of some single, homogenous profession. Just as each area has its own internal structure now, this will certainly need to be true in the future. The integration that we envision would involve overall organization, strategy formulation, resource allocation, and the creative amalgamation through action of the best of each. For example, it might make the library part of the overall communication program rather than its "distant cousin" and bring a communication orientation to the work of the library.

Most of the ongoing professional/technical information activities that are described and analyzed in this paper are not yet part of such an integrated population communication strategy. There is a movement in this direction, however, and the information activities of some national family planning programs, particularly several in Asia, come closest to integrating professional/technical and public-oriented information activities. Initially, most professional/technical information activities in the population field were either initiated by international organizations to generate awareness among elites of the need to expand family planning services and of the nature of the world's population problem, or by university population centers

as a resource for their staff and students. Only gradually did workers in this area begin to appreciate the conceptual relationships between international agencies and the university centers, which involve, as they do, publication programs, libraries, etc. Some integration of these types of professional/technical information sources has been accomplished. Integration of the information and communication components is now beginning to occur and should be accelerated.

However, there are still questions: To what extent should all professional/technical information services be integrated into the overall population IEC strategy? How can this integration be carried out in practice? What unit of the program should be the central coordinating and controlling body for these activities? Should population information be linked with parallel activities beyond the project and sector level and, for instance, be integrated into an overall national scientific and technical information policy?

The major purpose of this paper is to assist the managers of population programs to consolidate the gains from the first form of integration (within the area of professional/technical information) and to begin realizing those possible through the second (between professional/technical information and IEC for the public)--in order to give more impact to communication and information programs.

CHAPTER 2

Information Activities in Population: An Historical and Policy Review

Before the 1960's there were few centers providing technical and professional information services. The centers existing in the 1950's and earlier primarily comprised private sector organizations. Of the 130 agencies and organizations that have libraries and information services for professional and technical personnel, 104 were established after 1960 (Konoshima, Radel and Buck, 1975; Gleiter and Fogle, 1972). During this early period, the International Planned Parenthood Federation (IPPF) played a dominant role on all continents at the national, regional, and international levels. IPPF did major work in motivation and education in countries where there were no government programs at all. The audiences for this educational and informational work included family planning personnel as well as leaders and policy-makers. Those government information service units established before 1960 covered mainly statistical, demographic, and economic information as part of information support for national statistical institutes and census bureaus. In addition, medical, public health, and university-related institutions and agencies provided information services prior to 1960, but again, these were extensions of already well-established institutions and their information services.

It was not until the 1960's, with the proliferation of population/family planning programs, that technical and professional information activities expanded greatly at all levels. As the number of population and family planning programs grew, more information on all aspects of population/family planning was required by the planners and administrators of the programs. In recognition of this need, and even perhaps of the value and usefulness of information exchange across and within programs for carrying out newly-created programs, official policy statements and recommendations on information dissemination and exchange were made by national governments and regional and international bodies.

OFFICIAL INTERNATIONAL AND REGIONAL SUPPORT FOR INFORMATION SERVICES

In 1963, the delegates to the First Asian Population Conference urged that a system of information exchange among programs be developed. The World Health Organization (WHO), at about the same time, was given a broad mandate to work on health aspects of human reproduction, family planning, and population dynamics. The development of information services paralleled the broadening of the mandate. Other international agencies followed suit. UNESCO approved a program in population education that included dissemination of relevant information and documentation. The International Labour Organization (ILO) began promotional and educational activities; an integral part of these activities was the provision of information services to extension and workers' educators. At its first official meeting in 1970, the Inter-governmental Coordinating Committee, Southeast Asia Regional Cooperation in Family and Population Planning (IGCC) was given a mandate to provide clearinghouse facilities for information on all policies, programs, projects, and studies, and their effects on the economy of the region. Delegates to the Second Asian Population Conference, in 1972, urged that population policies and programs make provisions to ensure that all pertinent information reaches policy-makers and opinion leaders and that it be shared at all levels of society. The World Population Plan of Action, adopted at the World Population Year conference in Bucharest in 1974, contains numerous references to information activities at the international and national levels. It mentions the international exchange of information, together with research and assistance, as basic elements. The Plan states that its primary aim, besides expanding and deepening the capacity of countries to deal effectively with their population problems, is to promote an appropriate international response to the needs of countries "by increasing international activity in research, the exchange of information, and the provision of assistance on request" (World Population Plan of Action, 1974, paragraph 15). In general terms, the Plan also affirms, "international organizations, both governmental and non-governmental, should strengthen their efforts to distribute information on population and related matters . . ." (Ibid., paragraph 91).

Thus in the 1970's, with the rapid growth of population and family planning programs throughout the world, official voices in support of information services were heard.

SUPPORT FOR INFORMATION SERVICES ON THE NATIONAL LEVEL

At the national level, there were very few, if any, statements of official policy on information services before the rapid increase in the number of country programs in the late 1960's. Even though the family planning program in India began in the 1950's, it was only in 1966 that a Family Planning Programme Evaluation and Planning Committee, appointed by the Government of India, stated that in its opinion, data processing, documentation, reprography, and information and consultation services are essential elements of research activities. The Committee recommended that this service be provided by the Central Family Planning Institute (Documentation Work Done at the Central Family Planning Institute, New Delhi, India, 1970).

A number of other countries, among them Indonesia and the Philippines, have policy statements regarding information services and systems for population/family planning programs. In the Philippines, an act establishing a national policy on population and creating the Commission on Population, states that one of the functions and duties of the Commission is "to assemble and disseminate technical and scientific information relating to medical, social, economic and cultural phenomena as these affect or are affected by population" (Philippines, 1971).

In Indonesia, based on a Presidential Decree (No. 8 in 1970) and later modified by a Presidential Decree (No. 33 in 1972), the Bureau of Reporting and Documentation of the National Family Planning Coordinating Board (BKKBN) undertook the design and development of a system for reporting and recording program data. The system was implemented in 1972 as the forerunner of today's national information network on family planning/population (Indonesia, National Family Planning Coordinating Board, 1975).

THE "BOOM" YEARS FOR INFORMATION ACTIVITIES: 1965-1975

In 1966, as many as 25 countries were developing national family planning programs. A substantial and significant body of information existed, but much of the material was either unavailable

to many administrators, or, if available, it was presented in a form that was not focused on the decision-making process. The time had come to develop a more comprehensive service for the professional/technical workers in programs (Jaffe and Shelley, 1966).

After 1965, discussions increased among the various agencies and units in family planning programs. Attention focused on bringing some order to various information activities. The United Nations and other international, multilateral assistance agencies gave initial support to information services for professional program material rather than for public IEC. Private foundations, for example, the Ford Foundation and the Population Council, also provided information to program professionals, and especially to those who were involved directly with projects supported by these agencies.

In 1968, a core of librarians and other professional workers involved in population/family planning information activities met at the University of North Carolina to establish the Association for Population/Family Planning Libraries and Information Centers (APLIC). It became the catalyst for further development of information services in many parts of the world.

In the early 1970's, in an attempt to identify the scattered information sources in existence, a number of directories and compilations of information centers, of libraries, and of institutions, as well as available materials in population were published; Planned Parenthood/World Population's Guide to Information Sources, which is issued periodically and is a compilation of periodicals, indexes, abstracts, directories, bibliographies, reference materials and addresses of organizations, is an example.

REGIONAL AND INTERNATIONAL COOPERATION AND COORDINATION

Recommendations on information activities and services made at various conferences and meetings finally began to be implemented with the convening of the Working Meeting on Asian Resources for a Population Library Information Network in Bangkok in 1973. One hundred twenty-eight participants from libraries, documentation and information centers, and funding agencies recognized the importance of information service activities in support of research,

policy-making, and program efforts. They recommended that national, regional, international, and inter-governmental organizations take the following action: improve the status of libraries and documentation centers; give due responsibility to such units; train information personnel; establish a regional professional association; make information materials available; produce basic information tools; and develop networking and cooperative activities among the information service units (UN/ECAFE, 1973[a]).

The Bangkok meeting further encouraged not only regional and international action but also national population/family planning programs to begin developing professional and technical information services within their countries. Members were selected at the Bangkok meeting for a regional task force to carry out the recommendations. In the following months national networks in Indonesia and Korea were established and plans for networks in many other countries were discussed.

Soon Latin American countries began similar regional activities. Their efforts have created DOCPAL (Sistema de Documentacion sobre Poblacion en America Latina) whose services are available to all institutions that produce or use published or unpublished documents on demography, population, and topics related to population policy or programs. DOCPAL collects copies of all bibliographic materials written since 1970 in Latin America or concerning Latin American demography, population, or its policies or programs. It provides computerized bibliographies on request, periodically publishes an abstract journal, and supplies copies of documents when permissible ("Organization of Information Population," 1976).

INFORMATION SERVICE--WHERE IS IT AND WHERE IS IT GOING?

By the year 1977, new developments in information networking have encompassed communication technology, such as using international telephone linkups via satellite for bibliographic searches and transmission of data, and discussions have taken place on a possible computerized, worldwide information network. Specialized groups within the population field have met and talked about cooperative efforts for this worldwide system, beginning with a meeting in Mexico City in September 1975. Computerized data bases, such as

the one at George Washington University's Population Information Program, are now accessible from remote terminals, which could be located anywhere in the world. Because of the problems of handling special types of material (for example, audio-visual materials and research data) several attempts have been made to establish audio-visual clearinghouses and systems for data handling.

Although the impetus for information services came from international and regional agencies, the consensus suggests that it is to the national level that the bulk of resources now should go. Yet, there is continued discussion on this issue, and activities at the international and regional levels abound.

Information network systems in other fields (such as medicine, agriculture, and health) have been considered as possible models for a population information system. In addition, several thesauri of population and family planning have been developed for use in conjunction with networks.

In 1977, the reassessment of policies on information services is beginning, especially by agencies that support such activities. Some funding agencies will be working with fewer resources, and certainly, most are faced with increasing competition for those resources that they do have. Those agencies that may have greater resources may or may not consider information services worthy of funds sufficient to provide such services. In the meantime, some key factors in the development of these services are fading from the picture. The next few years will show what, if anything, is done to fill the vacuum.

CHAPTER 3

Information Services:

Potential Benefits to Population Programs

In Chapter 1 we noted that professional/technical information activities and public-oriented communication activities should be integrated and brought under a single, broad, population communication strategy. In that context, we pointed out that a number of audiences within and beyond a population program are potential users of professional/technical information. In this chapter and the next, these audiences and their information needs will be examined more closely. Chapter 3 emphasizes the contributions that professional/technical information can make to the improved functioning of a program regardless of the audience or user group involved; Chapter 4 looks at the information needs of specific audiences.

There are at least six distinct ways in which professional/technical information services--both those provided by an outside agency and those operated by the program itself--can be beneficial to a population program. Among other things, information services enable the staff of one population program to learn "at a distance" from the successes and failures of other programs. Information services permit program staff to apply research findings that were generated at another time and perhaps in another place. Information services also provide information that can become part of the content of population communication materials being prepared for other audiences, for example, for the general public. These and other contributions to improved program planning and implementation are reviewed in more detail below.

LEARNING FROM THE EXPERIENCES OF OTHER PROGRAMS

The importance of sharing experiences among action programs was recognized early by leaders in the population field. Initially, when little information on the operation of a population

program was available, there was almost no alternative to a first-hand examination of the few operational programs by policy-makers or senior officers involved in launching programs in their own countries. For several years a number of visitors, frequently sponsored by the Population Council or the Ford Foundation, flocked to the pioneering countries: India, Korea, Pakistan, and Taiwan.

Other measures were designed to aid the exchange of experiences among population programs. As more countries launched national programs, international meetings were held to bring the leaders together to exchange experiences. Thus, in 1965 the first international meeting of representatives of national family planning programs took place in Geneva. About this same time, various university population centers were being established, largely in the United States, for training program managers, research and evaluation specialists, and other professionals required for the operation of a full-scale program. Key courses were often given by foreign advisors or others with first-hand experience in the pioneering countries.

As useful as these various methods were--and still are--they were not totally satisfactory. First-hand exchange of information is expensive and consequently must be limited to a few people and to a few occasions. The need for information, however, is constantly growing as a program evolves. More efficient mechanisms for information exchange are required. One of these, of course, is the printed page. One of the important early contributions made by the Population Council to the exchange of information among population programs was the establishment of its periodical publications: Studies in Family Planning, Reports on Population/Family Planning, and Country Profiles. In time, other organizations have developed activities to facilitate the exchange of information among programs.

These publications describe program activities, especially their innovations so that another program might adapt the ideas. Because it is difficult to get busy practitioners and administrators to write, these descriptions are often prepared by foreign advisors or short-term advisors. No matter who prepares them, there is a clear and understandable bias against presenting failures. Indeed, success stories often omit the unpleasant side--the bureaucratic struggles, personality conflicts, etc. that occurred. In addition, the write ups of program activities and innovations often leave out,

or at least play down, the administrative "nuts and bolts"---information that might be very helpful to somebody who wants to implement a similar activity. In spite of these and other drawbacks, such information can be valuable; consequently, attention should be devoted to the problems associated with the collection, storage, retrieval, and dissemination of program information between nations. Many developments in information services that are relevant to this need are reviewed in subsequent chapters of this paper.²

USING INFORMATION GENERATED AT ANOTHER TIME

In addition to facilitating the movement of information from one place to another, information services can assist programs in identifying and applying relevant information that has already been generated. By systematically indexing the information contained in, for instance, research reports and by preserving them for future use, an information service can provide program operators with research findings and other data that may be relevant to their present problems.

Because of inadequate information storage and retrieval facilities, it has often been necessary to conduct fresh research or to reconstruct an existing body of data. Even though some problems can obviously only be solved through the application of fresh, relevant data to the present situation, there are many cases when recent information can represent at least a partial substitute for generating costly and time-consuming new data.

In a sense, then, information services can represent part of the "memory" of an organization or program. For certain kinds of materials, a filing system serves a similar function, of course, and in fact at least one population organization, the international headquarters of IPPF, is using a parallel system for indexing and retrieving technical information and material from its basic files of correspondence, reports from its affiliates, etc.

GAINING INSIGHTS THROUGH COMPARATIVE ANALYSIS

Those with analytical minds can make good use of parallel

information drawn from many sources and countries to reach conclusions about the relationships between two or more variables. If, for instance, a country is interested in the possible impact of changing the laws governing the age of marriage fertility, it would be useful to have someone examine the research data linking these two variables from as many settings as possible. Such comparative analysis is almost impossible without access to some form of organized information service that permits one to identify and obtain relevant research reports and other information from various countries.

LEARNING MORE ABOUT RELEVANT LOCAL CIRCUMSTANCES

There are innumerable data and other forms of information about the social, cultural, and political environments of a program that can never be gathered directly by the program itself. Particularly relevant compilations of such information need to be identified and obtained by the program's information specialists, but in many cases, they simply need to know where various kinds of information can be obtained if and when they are needed. If, for instance, the head of the communication section wants the names and addresses of all the market research companies in the country, an information specialist should know where to obtain this information and be able to do so quickly.

CONVEYING INFORMATION TO CRITICAL PROFESSIONAL AUDIENCES

As indicated in Chapter 1, a major contribution of professional/technical information activities to a population program is reaching some of the audiences that ought to be part of a comprehensive population communication strategy. A careful examination of the political, bureaucratic, and professional contexts in which a population program needs to operate will indicate a number of special audiences whose support for the program will increase its likelihood of success. Crucial among these are the government officials in various ministries that control program resources: funds, positions, personnel to fill those posts, transport, supplies, and other material resources. For example, if a population program is going to rely on those people who already reach rural people--agriculture extension agents and

community development officers--those who control these workers need to be convinced that there is a population problem, that it relates to the goals of their own departments or ministries, and that their staff can make a useful contribution. To develop this level of understanding probably requires several different communication activities, but certainly a key one is the provision of straightforward, professional/technical information.

Many other audiences could be identified that have their own special interests and concerns. Typically the family planning service component of a population program requires, for example, the active cooperation of the medical profession. Indeed, this is so obvious that many activities are underway to keep physicians informed about the safety and effectiveness of particular contraceptives and other topics related to their professional work in family planning. There are major international activities providing such information (for example, the Population Information Program of George Washington University) and some national programs issue newsletters, journals, or reprint series to reach the medical profession within the country. Indeed, the medical profession probably represents the most clear-cut exception to the generalization stated in Chapter 1 that special audiences requiring professional/technical information are often neglected by population programs.

USING EXISTING INFORMATION IN MATERIALS FOR NEW AUDIENCES

As indicated in Chapter 1, there is no clear line between the kinds of information required by specialized technical and professional audiences and the general public. Some information, for example, on the management of a population program, would have little relevance to a layman, but in other cases the difference is primarily a matter of the degree of technical difficulty of the information and its presentation. Both the medical practitioner and the woman about to take an oral contraceptive are interested in its safety and possible side-effects, but obviously the vocabulary, complexity, and amount of detail needed to convey similar information to each audience differs.

Professional/technical information can also be useful to a population program by serving as the basis or background for messages that are designed for the general public (or other audiences

that are not able to use the information in its original form). Since the subject matter of a population program--the impact of population growth on both individual and collective welfare and the possible solutions to these problems--has important technical aspects, it is inevitable that many of the messages that describe the problem and its potential solutions will need to consist of, or be based on, various kinds of technical/professional information: scientific analyses, research reports, vital statistics and census data, etc.

The next chapter will examine briefly the information needs of some of the key audiences for professional/technical information.

CHAPTER 4

Population Information Needs and Key User Groups

Although information specialists often talk about the importance of considering the information needs of one's users in the design and operation of an information service, little is actually done to measure those needs. This is certainly true in the field of population information. This chapter examines the few data available on this subject, but much of the content will necessarily be based on informed opinions and even speculations that one typically finds in articles and other discussions about the needs of population information users.

Without getting into a theoretical discussion, it would be helpful to begin this review of information needs by considering the idea of "information need." Essentially, we are talking about the problem of getting the right information to the right person at the right time. In other words, there are three important clusters of variables relevant to an understanding of information needs: 1) the nature of the information itself; 2) the characteristics of users; 3) the timing of the application of the information.

THE NATURE OF THE INFORMATION

A review of various discussions on information needs in the population field suggest that there are three main characteristics of information that pertain to its usefulness: the topic or subject, the geographic source, and the format or method of presentation. The most obvious of these, and consequently the one most frequently mentioned, is the topic or subject matter. For a given user-group (for example, for program managers), it has been postulated that topics of interest will vary to some extent from country to country depending on the state of development of policy and program and from level to level, but that, in general, the managers would share an interest in given topics. We shall return to this topic later.

A second aspect of information is the geographical source of that information. For certain types of information, the country of origin has (or should have) no bearing on its relevance. In the population field this would probably include information about basic research on human reproduction and certain kinds of contraceptive methods. In general, however, information users are interested in the source of the information since they feel that the cultural and social context of a policy, program, or research project is relevant to the outcome being reported, and that information about it must be interpreted accordingly if it is to be applied meaningfully. In some cases, of course, prejudice in favor of or against a given country influences one's reaction to information from that country. Surveys by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the UNESCO Regional Office for Education in Asia, and the East-West Communication Institute (EWCI) have included questions about their users' geographical interests.³ As with most of the relatively few studies on information needs, these surveys were specific to each organization's clientele. Hence very little can be generalized from them. One can say, however, that people are interested in obtaining information on nearby countries that are considered to be culturally or programmatically similar to that of the requestor and on countries that are perceived to have made important strides in the area under consideration, for example, India in the area of incentives. There is little desire to treat more developed countries as sources of program-related information; in practice there is often little choice since much of the readily available information, especially published documents, comes from the more developed countries.

A third important feature of information is the format in which it is presented. In her pioneering study of information needs among various categories of practitioners in Asian population programs, Lois E. Bradshaw asked several questions about the "preferred format" for published materials.⁴ According to her findings, the crucial consideration is length: about two-thirds of her respondents expressed strong preference for newspaper-style articles of no more than two pages. Secondly, her respondents indicated that an item should give a clear indication of its content in a way that catches the eye. The use of illustrations, good paper, and quality printing all contributed to whether people would read something or skip it. Over 80 percent of the respondents acknowledged that these considerations influenced their decision to read something.

THE CHARACTERISTICS OF USERS

The second cluster of variables associated with the use of information is the users themselves. The standard way of categorizing users is by occupation, mixed, sometimes, with their level of organizational responsibility. For the purposes of her study, Bradshaw, for instance, categorized users in the following five areas: policy making and administration, clinical services, IEC activities, research and evaluation, and training. On the basis of her survey of population organizations in Korea, Joung-Im Kim has identified six categories of population information users: 1) policy-makers, planners, and evaluators; 2) administrators, government officials, program officers, and other practitioners; 3) fieldworkers; 4) academicians and researchers; 5) trainers and curriculum developers; and 6) students.⁵ In some studies of information use, it has not been practical to categorize people according to their own professional activities and so the institutions or units of organizations in which users work have been categorized instead. EWCI, for instance, has used a simple breakdown of organizations in several analyses: action program, training program/unit, research program/unit, and international assistance agency.⁶

The assumption behind the use of occupational categories to distinguish among groups of users with different needs is, of course, very straightforward. It is simply assumed that individuals across programs and across countries who have similar responsibilities will have somewhat similar interests. The few data we have seem to support the validity of this assumption. The information needs of Bradshaw's respondents did seem to relate empirically and logically to their areas of professional responsibility, for example, clinicians indicated that their greatest need was for information on family planning service delivery methodologies whereas IEC specialists indicated that they wanted information primarily on innovative IEC approaches.⁷ There are some exceptions to this rule, however.⁸

THE TIMING OF INFORMATION

The time dimension (in the sense of when information is to be applied) also plays a role in determining information needs. The two basic factors are: the "need" to keep up to date and to be generally informed in one's area of competence and, on the other hand,

specific needs for information when confronted with a particular problem. The types of information service that are most suitable to meeting these different needs are varied. Newsletters and general population magazines such as IPPF's People, EWCI's IEC Newsletter, and the Population Reference Bureau's Intercom can help with the first need; the second need requires a system that can retrieve information--old or new--on a given topic at the time the user identifies the need. Unhappily, many information needs, particularly in the context of an active and evolving program, come and go quickly. If the required information is not readily available, a decision is made without it, although, of course, it must be assumed that the confidence in such decisions would have been greater if the needed information had been at hand. Hence, meeting information needs of the second type requires a system that can quickly respond.

SPECIFIC INFORMATION NEEDS

Since most discussions of specific information needs are related to particular occupational categories, the remainder of this chapter will review the data and viewpoints relating to the needs of several key groups of users in the population field: policy-makers and program administrators, IEC specialists, researchers and academicians, and officers of international agencies.

Policy-Makers and Program Administrators

Table 1 shows the results of Bradshaw's study regarding the topics of interest to policy-makers and administrators and to the other key groups included in her study. She found that the topics of greatest interest to policy-makers and program administrators are the administration of population programs and "how-to-do-it" information. This is followed by information on the broader picture--the relationships between population and various aspects of social and economic development. Based on her experience in Korea, Kim concludes that policy-makers and administrators (as well as other practitioners) want information that is practical, action oriented, and timely, as well as concise and tailored to their needs. They also tend to want up to date and reliable statistical data on their own country.⁹ Similar views are expressed by Feliciano who notes that busy practitioners are partial to the condensed versions of research reports that present results "in capsule form, pointing out briefly the problem

TABLE 1. INFORMATION NEEDS OF DIFFERENT
CATEGORIES OF POPULATION PROGRAM
PERSONNEL IN SOUTH-EAST ASIA, 1973*

| Category of Personnel | Type of Information (in descending order of importance) |
|--|--|
| Policy-makers and program administrators | <ol style="list-style-type: none"> 1. General theory of program management 2. Methodology ("how-to-do-it") on service delivery etc. 3. Interdisciplinary aspects of population 4. Information, education, and communication 5. Research results |
| Physicians and others concerned with clinical services | <ol style="list-style-type: none"> 1. Methodology of family planning service delivery 2. Contraceptive technology |
| IEC specialists | <ol style="list-style-type: none"> 1. Innovative IEC approaches 2. Communication theory 3. Family life education 4. Interdisciplinary aspects of population 5. Program management |
| Research and evaluation specialists | <ol style="list-style-type: none"> 1. Research results in general 2. Case studies 3. Acceptor characteristics and continuation rates 4. Research methodologies 5. Directory of on-going research |
| Trainers | <ol style="list-style-type: none"> 1. Training materials in print and audio-visual forms 2. Evaluation reports on training activities |

*Based on Bradshaw, 1974(b), pp. 25-27.

under study, the methods and procedures used and a listing of the main findings.¹⁰

IEC Specialists

Bradshaw found that a major need among IEC specialists is for information on innovative IEC approaches (see Table 1). They also have much interest in communications theory and family-life education. David Radel reviewed the topics that were of greatest interest to the users of the EWCI's IEC Materials Service during the early period of its operation. Many of the users were IEC specialists. The topics of greatest interest were general communication strategies and the use of mass media. This is reflected in the titles of actual materials that were frequently requested by users. The four most popular in 1973 were "Ten Things We Know about Family Planning Information" by Wilbur Schramm (1971), "Problems and Prospects in Utilizing Mass Media and Interpersonal Channels in Family Planning" by G. R. Amritmahal (1970), "Communication Strategy for Family Planning" by Guy M. Roppa (1971), and "Use of Radio in Family Planning" by Harry L. Levin and Robert Gillespie (n.d.).

Researchers and Academicians

In his discussion of the development of demographic libraries, Everett S. Lee emphasized the need of population researchers for access to actual data. In particular he mentioned the need for census data from various countries in an inexpensive format (for example, on microfiche) and key data stored on computer tapes and ready for analysis.¹² In a study of the use of two computerized information retrieval systems by population staff at Johns Hopkins University, Jeanne S. Newman found that the people doing basic research tended to be less satisfied with the searches than were the more action program-oriented members of the staff. She attributed this to two factors: first, these researchers tend to have fairly well established means of obtaining, on their own, the basic literature in their area of expertise and hence generally did not learn anything new through the searches and, second, the materials on programs, which are often fugitive documents, tend to be more difficult to identify through conventional bibliographic sources and hence any search of a new collection is likely to turn up new titles that are new to those with program interests.¹³ The conditions in a

developing country university, with limited access to basic literature, might lead to a very different response.

The authors of this paper reviewed the nature of the documents requested by 88 researchers who used the East-West Communication Institute IEC Materials Service and found that they asked for relatively few materials on the topic of research and evaluation and, in terms of the number of items listed under different categories, they asked for the largest number under the heading of "use of mass media." In this study it was also found that researchers from developing countries--and this was found to be true too for other categories of users--asked for about twice as many documents each time as did those from developed countries. This finding surely reflects the greater difficulty encountered by researchers and others in the Third World in obtaining professional reading materials in comparison with their more informationally endowed colleagues in developed country institutions.¹⁴ In a similar vein, the 1972 UNESCO Experts Meeting on Research in Family Planning Communication called for the strengthening of information storage and retrieval systems in the developing countries in order to facilitate the flow of research findings among researchers. This, in turn, would contribute to the more efficient determination of unmet research needs.¹⁵

Officers of International Agencies

Dealing as they generally do with more than one country, often at a distance, the officers of international agencies have voracious appetites for information.¹⁶ An officer of the United Nations Fund for Population Activities (UNFPA), Petra Osinski, reviewed the population information needs of international agency personnel. She indicated that there are four basic types of information needed for the effective implementation of an aid program in population: demographic, scientific and technical, social and economic, and program. By demographic information she meant current data and projections on the sizes and structures of populations in terms of variables such as age, sex, place of residence, employment status, and level of fertility. Under scientific and technical information she included the results of research on the social and cultural factors influencing fertility as well as contraceptive technology itself. The third category is basic economic and social information on countries, with special reference to their relationships

with demographic variables. The final category--program information--is of obvious importance to international agencies. Essentially this refers to who is doing what, where, and how. To be useful, such information must be up to date and indeed it should be available when projects are still in the planning stage.¹⁷

IMPLICATIONS FOR FUTURE DEVELOPMENTS

The wide range of audiences for professional/technical information results in information needs encompassing a wide range of subject areas. In the development of information systems for population/family planning, coverage of all subjects of concern to users in the population field by central data base would present serious problems of unmanageable volume and scope. Questions of scope (coverage) of subject matter in this field are still plaguing the development of information systems. What should appropriately go into other information systems such as those for social sciences or medicine or general collections on development rather than into the population/family planning information system? This issue will no doubt continue to be discussed as information systems in population/family planning are developed.

A related problem is the relative scarcity of certain kinds of information that are being requested by users of population information systems, especially practitioners. Perhaps because of reluctance to admit mistakes openly, negative information about programs and activities rarely gets into the data base. And yet, there is a lot to be gained from information about others' mistakes.

It is generally conceded that the academic clientele have the best established services. Efforts have been made during the past few years by several agencies to correct the information imbalance between academics and practitioners by establishing services designed primarily for the latter. Recently, several of these services, which have been geared to program users, have discontinued their activities. There will be problems for their clientele until similar services can be set up elsewhere and become known to these users. Perhaps it is now time to make an effort to re-examine the type of support that is needed to stabilize the funding situation.

CHAPTER 5

Types of Information Activities and Services

Information activities and services are as varied as the types of agencies and programs in the population/family planning field. They range from small collections of materials shelved in an office for agency staff use to in-house libraries, documentation centers, publication programs, and computerized storage and retrieval systems.

IN-HOUSE LIBRARIES AND DOCUMENTATION CENTERS

A majority of agencies and institutions that have information or library units, have established them to handle their own program needs. They collect, process, and make materials and information available to their own staff. These in-house libraries tend to be specialized collections, working collections, or research collections. And to the extent that other institutions both within the country and abroad have similar interests or activities, the sharing of materials and information takes place. However, in most cases, the work load of the small, limited staff in servicing its own agency needs and a relatively small budget preclude any extended exchange or dissemination of information and materials. The East-West Population Institute library in Honolulu and the Institute of Population Studies in Manila are examples. Similar operations include: the Ford Foundation's Population Office, which provides information services to its field staff, and the USAID mission in Pakistan, which renders special services on a limited scale to population and family planning agencies within Pakistan.

Some agencies have documentation centers that identify materials on specific subject areas and record bibliographic details about these materials. Some centers collect these materials and disseminate information about them through accessions lists or

special bibliographies. Some answer requests for copies of documents, while others refer requesters to the original producers or publishers. Two examples of documentation centers are the Karolinska Institute's Biomedical Documentation Center in Sweden and WHO's Regional Centre for Documentation on Human Reproduction, Family Planning and Population Dynamics in New Delhi, India.

PUBLICATION PROGRAMS

A publication program is a common method for transmitting information from information services and centers to their clientele. Publication programs encompass many types of publications, from books and monographs to simple one-page information sheets.

A cursory examination of published literature would seem to indicate the following: lengthy books and monographs are published to a large extent by the more affluent agencies in the developed countries, are geared to researchers and academicians, and are written predominantly in English. However, more recently, books and monographs have become less technical and have been written for more generalized audiences. The following are examples of some of the more recent titles: Readings in Population Information and Education (Ford Foundation, 1973); and Taiwan Family Planning Reader: How a Program Works (Cernada, 1970). Generally, ones published in the local languages are more geared to program people.

Journals, newsletters, and other periodicals and information sheets are abundant in the population field. There are the journals that cater to specialized audiences of researchers and academic professional people, such as Demography; then there are magazines such as People issued by IPPF that cater to program professional people as well as to some sectors of the public.

Newsletters are a popular format; and a variety of organizations, from the smallest family planning associations to institutions and agencies working at national and international levels, issue newsletters. Again, quality and content vary with the issuing agency and the purpose of the newsletter. Many were started only to cease because of lack of funds. The Indonesian Planned Parenthood Association News (now defunct), the News Letter of the Family Planning Association of Nepal, the Iran Population and Family Planning

Bulletin, and Intercom are just a few examples of the large number of newsletters in population/family planning.

Flyers, headliners, and other information sheets, which attempt to disseminate population information quickly, usually rely on a "newsletter" format. In most cases, these are circulated to a limited, special group of people who are directly involved in programs. Examples of such publications include Population Headliners issued by the Population and Social Affairs Division of ESCAP and Washington Memo issued by Planned Parenthood/World Population.

A recent development for in-house, quick dissemination of information is the daily Open File system used by IPPF. The Open File consists of short items culled from all types of information reaching the central office. These items are printed daily in two to six pages of short paragraphs along with a "press highlights" section and a list of publications received. Items from the central Open File are selected each week for inclusion in a Regional File and distributed to the IPPF regional offices. The Open File system provides an important source of materials for IPPF's central information bank as well.

As population and family planning programs increased throughout the world, the number of publications also increased, although several have been short-lived. A perennial question concerning publications is: Are there too many publications in our field? Should there be some rationalization of this situation? If the answer is yes there are too many, then should some be combined or eliminated altogether? Yet there are complaints from some users that they do not get enough material. Or, is it a matter of too many publications of the same type aimed at only one type of user? Are some informational publications overburdened with public relations material for sponsoring organizations that seek more funding? These questions have no answers as yet, but some studies on information needs and uses now in progress may possibly provide a few answers.

CLEARINGHOUSES AND HOW THEY HANDLE INFORMATION RETRIEVAL AND DISSEMINATION

As more and more programs in population and family planning came into existence, the demand for and generation of information increased. No longer was it possible for programs to collect materials

on developments in all of the fields that make up population and family planning. The program people who rely on this information were faced with the problem of handling the volume in order to carry out their activities successfully.

Their attempts to solve the problem led to the establishment of a number of information clearinghouses. Such centers gather information and materials from multiple sources; process these materials in some way (for example, preparing them for storage and retrieval, abstracting, translating, cataloging, collating, selecting, simplifying); and identify appropriate audiences for the materials and disseminating the processed material to external users. Not all of these services are provided by all of the existing clearinghouses. Examples of a few clearinghouse operations include the UNESCO Regional Clearing House Service for Population Education and the ESCAP Population and Social Affairs Division's Clearinghouse (both clearinghouses are in Bangkok), the Korean Institute for Family Planning, and the UN Centro Latinoamericano de Demografia (CELADE), the Latin American Demographic Center's information activities.

Although a number of clearinghouses have been established in the past seven years, the situation in the field of technical information services for professional program staff, researchers, administrators, policy-makers and other persons associated with population/family planning work is far from satisfactory. The sheer volume of materials, the slow delivery of information, the glut of irrelevant materials attempting to fill specific information needs, and the great distances between the user or potential user and the source of information are problems that clearinghouses face. In the past several years they have begun to turn to the computer for assistance in solving some of these problems.

Clearinghouse staff have found that traditional storage methods are inadequate for large quantities and are becoming too costly. The greater storage capacity of computers potentially permits the less costly provision of information to users. Retrieval of information from voluminous data bases can be done more economically, accurately, and quickly by the computer. Expensive repetitive use of manpower to retrieve the same kinds of information can be bypassed once the data are placed in computer files. With the introduction of telecommunication technology, distant sources of information are made accessible to the user. A number of computerized

information services have been developed during the last three or four years: POPINFORM at the Population Information Program of George Washington University in Washington, D. C. ; PopScan at the Carolina Population Center's Technical Information Service; and CELADE's system, known as DOCPAL (Documentacion sobre Poblacion en America Latina). These services are described in more detail in the following chapters of this paper. Other computerized systems also exist that are not devoted entirely to population but that include information and data on some particular aspect of population and family planning. MEDLINE (a system for medical information) is an example. An international network (tentatively called POPINS), which would tie together various computerized services and other information centers, has been proposed and preliminary assessments for this worldwide network may be conducted by UNFPA. There is also a proposal to conduct an experimental, pilot connection between the Philippines' Population Center Foundation's Information Division and POPINFORM's data base in Washington, D. C.

FINDING THE APPROPRIATE INFORMATION

Parallel to the development of information services has been the development of a number of "tools" that enable information users and information suppliers to get at the specific information needed. Among such new tools are thesauri, which either broadly cover the population field or focus on a particular aspect. Users of information services usually request materials on particular subjects. But the multi-disciplinary nature of the population field lends itself to confusion and misunderstanding, particularly when persons in different subfields are involved. Until recently, there has been no common vocabulary through which requesters and information suppliers could communicate. Thesauri provide this common base. The thesaurus standardizes the vocabulary and shows the relationships between specific terms from each subfield and indicates how they are used.

Some of the major thesauri developed over the past few years include: Population/Family Planning Thesaurus (the Carolina Population Center), Fertility Modification Thesaurus with Focus on Evaluation of Family Planning Programs (K. H. Speert and S. M. Wishik), and Population/Fertility Control Thesaurus (Helen K. Kolbe and Rita Bergman).

BRINGING DOWN THE COST OF DISSEMINATION AND STORAGE OF MATERIALS

As the volume and flow of information between population programs and across national borders increases, postage expenditures of suppliers also go up. Moreover, the mass of materials creates costly storage problems for clearinghouses. In order to solve these problems, clearinghouses and information centers have begun using microfiche, usually a 4 x 6 inch sheet of film, which holds about 60 or more pages on one sheet. A number of clearinghouses, ESCAP, The George Washington University's Population Information Program (PIP), EWCI, and Carolina Population Center, to name a few, are able to provide materials on microfiche inexpensively to their users. In fact, the Carolina Population Center has placed the card catalog to its collection on microfiche and has distributed this microfiche catalog to a number of institutions throughout the world, thereby making its wealth of materials and information available to many programs in distant countries.

HANDBOOKS, DIRECTORIES, AND OTHER REFERENCE MATERIALS

Which organizations or institutions have training programs for demographers, for clinical personnel, etc.? Who is doing research on migration in Southeast Asia? Another invaluable service provided by many centers is the preparation of handbooks and directories that answer questions such as these. Examples of such reference tools are: ESCAP's Research, Teaching and Training in Demography: A Directory of Institutions in the ECAFE Region; UNFPA's Population Programmes and Projects, Guide to Sources of International Population Assistance: Inventory of Population Projects in Developing Countries Around the World, 1974/75; U.S. Interagency Committee on Population Research, Department of Health, Education and Welfare; Inventory of Federal Population Research; and EWCI's Directory of IEC Assistance and Services.

STATE-OF-THE-ART PAPERS: HELPING BUSY PEOPLE WITH THEIR INFORMATION NEEDS

Program people, and especially practitioners, are busy people who have little time to read all of the literature on the

particular aspects of population/family planning about which they need to be informed. "State-of-the-art" reports or papers help them keep current on new developments in the field. Generally, these reports cover a particular topic in detail, pulling together research findings over a number of years and showing recent developments and possible trends. There are some agencies, called information analysis centers, that are wholly devoted to producing such reports, as is the PIP program at George Washington University in the fields of contraceptive technology, family planning programs, law and policy, etc. Many other agencies produce this type of report, for example: the Population Reference Bureau in its Population Bulletin series; some of the Reports on Population/Family Planning and the Country Profiles of the Population Council; and IPPF in its Medical Bulletin. The Philippines Population Center Foundation's publication, Options for Policy and Practice pulls together research findings and presents them in a form suitable for policy-makers and administrators.

SPECIAL PROBLEMS: AUDIO-VISUAL MATERIALS, ACTUAL DATA, AND PROJECTS AND RESEARCH INFORMATION

A special problem, and one that might even be considered as "horrendous," is inclusion of audio-visual materials in information services. The total volume of audio-visual materials used for motivation and information campaigns, for training and educational programs, and for briefing top-level officials is awesome. Certainly, a comprehensive clearinghouse operation that would provide actual copies would be beyond the capability of any one institution. However, program people especially want access to examples of different types of audio-visual materials as models for their own materials or for use in training and educational programs.

Some attempts to present a comprehensive picture of audio-visual materials have been made on the national, regional, and international level. In the Philippines, there are lists put out by the National Media Production Center (NMPC), but these cover only those materials with which NMPC had direct production involvement. At the regional level, there are regional offices of international bodies that send lists of audio-visual materials (appropriate for the region) with information on the sources for obtaining rental copies or for purchasing such materials. On the international level, the

East-West Communication Institute collected materials in various formats from various country programs throughout the world. IPPF and UNESCO jointly created the International Audio-Visual Resources Service (IAVRS), which was intended to be the major clearinghouse in this area. After a few years of existence, however, IAVRS found it could no longer continue its program.

In the early stages of the development of national programs, there was much interest in obtaining audio-visual materials from other countries as a source of ideas for the development of new materials. Most programs are now at the stage where growing in-country resources and talents are available for materials' design, development, and production. There are also questions of the extent to which such materials can be used across cultures, and of the necessity of having an audio-visual materials clearinghouse on an international level. These are some of the important issues surrounding audio-visual materials, which go beyond the already difficult problems of handling, processing, and storing.

Other types of information that information services have not adequately handled as yet include actual data and project information. Although census data is now organized into readily accessible systems of storage and retrieval, other forms of data are still to be identified as available and need to be properly indexed. There are sources of information for some areas of research, such as information on KAP studies at the Roper Public Opinion Research Center (RPORC), but most of the sources of information on research, projects, and data are known only to limited, specialized in-groups. There have been a few attempts to identify sources for these types of information. The UNFPA inventory of population projects in developing countries (United Nations Fund for Population Activities, 1976[b]) surveys non-governmental organizations, university centers, and research and training institutions and publishes the information. However, there is a time lag of about two years and projects are not indexed by subject matter but rather by country and agency. The International Committee on Applied Research in Population (ICARP) has been identifying proposed research projects that would be of direct relevance to population programs. Again, these project descriptions are disseminated only to a limited group of persons working within population and family planning programs (International Committee on Applied Research in Population, 1973).

RESEARCH USE: GOING BEYOND INFORMATION SHARING TO ACTIVE PROMOTION

A concern, not only in the population field but also in many allied fields, is that research is not being fully utilized. Research is conducted at great expense and frequently, new research is conducted when data on the same problem are already available. There are many reasons why this research is not fully utilized: research reports are too technical and too long; the research itself is not relevant to program application; the administrator/practitioner cannot take the time to interpret results for application to his or her programs, much less read and comprehend all of these reports. Someone needs to take technical research reports, digest them, and write an understandable account of the research results and the program implications.

Some of the solutions to the problem of under-utilization of research have involved activities that go beyond simply sharing information to those of actively promoting its use. To make it somewhat easier for program administrators to absorb technical information, research results can be conveyed through audio-visual presentations. For example, the results of the case study, Traditional Midwives as Family Planning Communicators by Everett Rogers and Douglas Solomon, were also put into a filmstrip/tape "report" that is used independently or in conjunction with the detailed written report (Rogers and Solomon, 1975). In other cases, state-of-the-art papers on particular research topics have been produced. ICARP identifies research projects that are directly relevant for programs before the projects are carried out so that the probability of the results being applied is greater.

The Information Division of the Population Center Foundation in the Philippines has developed a strategy to maximize the application of research results to policy and to professional practice. The strategy encompasses four major components: 1) research transformation--development of a policy- and practice-relevant state-of-the-art summation of scientific findings based not only on a review of the literature, but also on the feedback of professionals in the population field; 2) dissemination--communication through print and electronic media of these scientific findings as well as case studies to sub-audiences of population professionals; 3) information

retrieval--collecting, indexing, and abstracting research information (in print, film, or microform) to be transformed or disseminated; and 4) research--implementation of research on the flow of scientific knowledge needed to implement the basic research utilization strategy, (also, when the research transformation function warrants it, further analysis [secondary analysis] of research data collected by others) (Population Center Foundation, Population Information Division, 1976[b]).

THE OTHER SIDE OF THE COIN: INFORMAL SOURCES OF INFORMATION

A valuable channel of interchange of information and materials is the informal network made up of members of international field staffs, consultants, advisors, etc. However, this group of people is small, and as individuals, it can only cover a limited number of areas in population and family planning. Furthermore, access to this group as a source of information and material by a broad spectrum of users is severely curtailed. Information and materials may be transmitted to certain people in the program, but there is no guarantee that this information and material will reach others within the program. More likely, materials will get stored on shelves or in the files of the first contact. All of this points to another problem for units and for those people providing information services to a larger segment of program users. Much of the information and material closeted in files and shelves in various offices is useful and valuable for professional program staff. Unfortunately, this information and material remains essentially hidden, and any additional benefit from them is blocked.

CHAPTER 6

Information about Information

The previous chapter reviewed the various kinds of information activities and services that have been developed in the population field, ranging from in-house libraries to complex information analysis programs. In spite of this wealth of resources, however, field studies have shown that many professionals in population work are not adequately aware of the existence of this array of information services let alone how to tap specific, available resources to meet their own information needs.¹⁸ This chapter will review some of the concrete steps that have been taken or that are being contemplated to remedy this problem of lack of information about the field's information resources.¹⁹

Basically, "information about information" comes in two forms: lists of documents and other materials and lists of institutions or services from which one can obtain various kinds of information services such as publications, reference services, literature searches, and documentation services. Even after one has obtained such a list, there still remains the formidable problem of obtaining the actual documents. This can be especially difficult for users in developing countries with limited libraries and other information resources.

BIBLIOGRAPHIES, INDEXES, AND OTHER LISTS OF INFORMATIONAL MATERIALS

The starting point in any review of bibliographies and indexes in the population field must be the Population Index, the bibliography published quarterly since 1953 by the Office of Population Research at Princeton University.²⁰ Each year the Population Index provides full bibliographic citations for 3,000 to 4,000 articles, books, monographs, and reports on topics related to demography published, largely, in European languages. Although the scope of Population

Index has broadened over the years to include more than formal or classical demography, the Index does not attempt to cover the entire range of population literature.²¹ There are certain major topics, such as IEC, contraceptive technology, and reproductive biology, that it covers selectively or not at all, and there are types of literature, especially fugitive documents, that the Index tends to exclude.

Other indexes of population literature have been developed to complement the coverage of Population Index. In the early 1970's the Simon Population Trust in England published the Bibliography of Family Planning and Population, which emphasized documents relevant to population action programs. In cooperation with the East-West Communication Institute, it had a strong section on population communication. When the Bibliography was unable to obtain subscriptions sufficient to become at least partially self-sustaining, publication ceased. The Population Center of the U.S. National Institute of Child Health and Human Development sponsors the publication of a monthly citation index on reproductive biology called Population Sciences: Index of Biomedical Research. Population Sciences is based on Index Medicus, which indexes some 2,300 key medical journals. Hence Population Sciences contains only citations to medical journal articles. Since 1970, the Whitston Publishing Company has been issuing an annual hardcover index of book and periodical literature entitled Population and the Population Explosion: A Bibliography for [Year]. In the face of the far more comprehensive coverage by Population Index and Population Sciences, there is little that Population and the Population Explosion has to offer the professional in the population field, although it may be useful for a large public library since it excludes many of the highly technical materials that would be listed in these other two publications. A regional Bibliography on Human Reproduction, Family Planning and Population Dynamics is published by the WHO office in New Delhi. Starting with a single issue for 1971, this annotated bibliography is now produced quarterly.

The Population Council issued between 1969 and 1975 a very selective series of bibliographies entitled Current Publications in Population and Family Planning. There were two distinctive features of Current Publications: it was widely distributed in developing countries through the Population Council's extensive publications program and it was backed up with a service that provided copies of materials of short length to requesters in the Third World. The Council replaced Current Publications as a separate publication with a section

in Studies in Family Planning and with the "Selected Publications" section of Population and Development Review, a more scholarly journal initiated in late 1975. The document back-up service has been dropped.

Over the years a number of ad hoc bibliographies have been published on special topics in the population field. The Technical Information Service at the Carolina Population Center began in 1972 to publish a continuing series of bibliographies on different topics or geographical areas. Geographical areas covered have been Iran, Nigeria, Morocco, and sub-Saharan Africa; among the topics covered have been evaluation of population programs, variables affecting attitudes toward abortion, and women's non-familial activities and fertility.²² The WHO regional office for Southeast Asia issues supplements to the bibliographies described above that deal with special topics of interest to that region such as male and female sterilization, IUDs, oral contraceptives, and family planning programs.

The major bibliography dealing with population communication was compiled in 1976 by the authors of this paper. Entitled Communication and Non-Formal Education in Population/Family Planning: An Index of Materials together with Information on Obtaining these Materials, this bibliography of about 3,000 documents and audio-visual materials in English, Spanish, and French has, as indicated by the title, a unique feature: it gives complete information on how to obtain each item listed, from one or more of the some two dozen libraries with copy services or from one of the various other sources (free reprint services, publication programs, commercial publishers, etc.).

Somewhat akin to a bibliography is an accessions list, which gives the items added to a particular collection during a given period of time. Accessions lists are used within an organization to provide a "current awareness" service by, in effect, letting staff members know what some of the newest items are in the field. Typically, an accessions list will not give the breakdown of chapters in an edited book or in conference proceedings and will almost never list the articles in new issues of journals as they arrive. Hence an accessions list does not represent a complete record of the new material coming to a library. Accessions lists are also exchanged among librarians in different organizations in order to inform one another about the newest items that have been identified for their respective collections. Having access to the accessions lists--compiled by

better endowed institutions in locales where new publications are more readily identified--can be useful to the library of a developing country's population program. Accessions lists that give the addresses of publishers and the costs of items, such as the IPPF Library Bulletin, are more useful in this regard. In fact, the Bulletin goes one step farther and recommends, through a coding system, those items that would be most useful to a collection with a limited budget.

Another kind of "list" of materials is the card catalogs of libraries or documentation centers. The Technical Information Service of the Carolina Population Center has prepared for distribution to other libraries its entire card catalog on microfiche. Since the collection at the Carolina Population Center is probably the largest population library in the world, this Microcatalog enables librarians and others to learn what this library has identified on a given topic, a given country, or by a given author.²³ In several countries steps are being taken to bring together or print a set of catalog cards from each of the major population collections to form what is known as a union catalog. This permits a user to check the holdings of all important collections of materials by visiting just one location or, if in published form, by checking one master list. A union catalog in published form, although convenient to users, is expensive to keep up to date. One of the countries in which a union catalog (in published form) has been compiled is Korea. In 1975 a joint list of the book holdings of three organizations was published, and as other libraries organize their collections properly, it is hoped that they will be added to the union catalog.²⁴

COMPUTERIZED BIBLIOGRAPHIC SYSTEMS

Standard published bibliographies are often cumbersome and time-consuming to use if one has a very specific, narrow topic in mind. For instance, it would take a long time to learn from a conventional index, such as Population Index, what was published on the impact of male and female sterilizations on the Indian birthrate during the years 1970-1974. If this were just the minor topic of a particular publication, it might not be possible to identify this publication at all. The development of computerized bibliographic systems has overcome some of these problems.

Several U.S. university population centers have developed computerized bibliographic systems for their own use. In most cases these are also accessible to outside users. The Technical Information Service at the Carolina Population Center, for example, will provide outside requesters with so-called "PopScan" computerized bibliographies. These can be compiled by authors, subjects, regions or countries, series, publishers, or types of documents.²⁵

Several university groups, under the leadership of the Population Information Center at George Washington University, banded together in 1973 to create the POPINF network. This system is on-line, meaning that a subscriber anywhere in the United States (and potentially overseas subscribers as well)²⁶ can connect with the computer in the Washington, D.C. area and conduct a search of the data bases with a remote terminal that looks much like an electric typewriter. The computer program used with the POPINF system permits the user to "interact" with the computer to specify what kind of search is needed. If, for instance, the number of documents on a given topic seems unmanageable to the user, based on the computer's informing him or her of the number of titles that fit the original specifications, then the user can redefine the topic in narrower terms. Searches can be conducted by index terms or by using "free text," that is, using any words that the user chooses that might appear in titles or abstracts of the materials he or she would like to identify. The terminal, or if this is too expensive (due to the cost of the telephone connection) the main computer itself, prints out the pertinent bibliographic citations from all (or from a specific one) of the collections of institutions participating in POPINF. Depending upon the user's needs, the citations can be printed alone or with the full abstracts. By and large, cooperating members can supply (at cost or free depending upon circumstances) copies of actual documents identified through such a search.²⁷

Currently, exploratory discussions are underway that are expected to lead to the combination of the POPINF data bases with the citations that appear in Population Sciences and with those in Population Index (back to 1969). This system, which would start out with about 65,000 citations to the population literature broadly defined, is tentatively called POPLINE. POPLINE would be maintained by the U.S. National Library of Medicine as a subsidiary of

its existing on-line system in medicine called MEDLINE. POPLINE would be available through any of the approximately 500 U. S. universities, medical societies, government agencies, and companies that currently subscribe to MEDLINE, as well as in a few countries in Europe and Asia. Since MEDLINE is heavily subsidized, the cost of searches would be much less expensive than with the current POPINFORM system.²⁸

A computerized bibliography is being developed specifically for the Latin American region by the UN regional demographic center, CELADE, in Santiago, Chile. DOCPAL was initiated in March 1976 with a grant from the International Development Research Centre (IDRC). An abstract is prepared in Spanish for each document entered into the system.²⁹ Searches can be conducted on the basis of subjects, authors, or geographical descriptors. The aim of the system is to bring under bibliographic control as many as possible of the published and unpublished documents on most aspects of population produced in or about countries of the region served by the UN Economic Commission for Latin America (which includes the Caribbean). It is expected that there will be nearly 12,000 documents in the system by the end of 1977. Computer tapes will be provided to those institutions in the region that can use them; otherwise institutions with population interests will be able to obtain a printed journal of abstracts. A full-copy back-up service will be provided by DOCPAL.³⁰

In order to study the need for a worldwide bibliographic system for the field of population, the Population Division of the United Nations, assisted by the International Committee for the Coordination of National Research in Demography (CICRED) and the East-West Communication Institute, sponsored a feasibility study in 1976. While it was concluded that a worldwide computerized bibliographic system, tentatively called POPINS, is technically feasible, the Technical Task Force (TTF) that carried out the study recommended that the main focus of efforts to develop a more effective system should be at the national and regional levels, primarily in the developing world. More training and higher levels of technical and financial assistance are required to develop national information infrastructures. Existing population information services, such as Population Index and the Population Information Program at George Washington University, are performing useful services, but, as the TTF concluded, they are greatly under-utilized, especially by the developing countries. In addition, they are missing

much of two important components of the world's population literature: 1) duplicated and fugitive materials from developing countries, which includes a large number of program materials, and 2) items written in languages other than English, Spanish, and French. The TTF urged that efforts be made to ensure the interest and involvement of the existing systems, but at the same time ways must be found to supplement and complement the existing systems in the areas in which they are currently weak by involving the countries directly as participants in POPINS. In January 1977 the UN Population Commission reviewed these recommendations, which had been forwarded through an international steering committee, and decided that a modest secretariat be established to prepare a detailed plan of action for POPINS.³¹

GUIDES TO INFORMATION RESOURCES IN THE POPULATION FIELD

The second basic approach to information about information does not pinpoint a particular document, but instead directs users to particular institutions that can respond to their information needs.

The first and still perhaps best known directory to information resources in the population field is the International Directory of Population Information and Library Resources issued by the Technical Information Service of Carolina Population Center in 1972. This Directory and a subsequent supplement focus on the nature of the library services in the nearly 240 organizations around the world for which profiles could be prepared. Other sources of information, especially non-library publication programs, were not stressed although the Directory contains a very useful list of over 200 population periodicals issued by these organizations. In 1975 the Directory was partially updated through the issuance of the coded 1975 Address List. The Address List also provides basic information about many additional organizations; nearly 1,000 are listed altogether.³²

Shorter, more focused directories to information sources have since made their appearance. One was prepared by Richard Hankinson in late 1973 and the other was published in Overview by N. P. Cummins in early 1975.³³ In late 1975 the East-West Communication Institute issued Sources of Information on Population/Family Planning: A Handbook for Asia. This directory places

strong emphasis on the kinds of services that any user can obtain from the 64 agencies described and uses a very elaborate system of 400 "subject descriptors" to allow users to determine those institutions with information on specific topics of interest to them.³⁴

Several directories to international assistance in the population field include information services among the types of services they describe.³⁵

THE NEED FOR FULL DOCUMENTATION SERVICES TO BACK-UP BIBLIOGRAPHIES

As a postscript to this chapter, the point must be made that no matter how comprehensive a bibliography is, it does little more than tantalize users if they have no way to obtain the documents themselves. As was indicated above, some bibliography-like lists, such as the IPPF headquarters accessions list, gives sources for most of the items cited. This is helpful, especially in the case of reliable sources, but many fugitive documents from developing countries are produced by institutions that do not have the resources to meet the continuing demand for requests from outsiders. The IEC Index issued by EWCI, which was mentioned earlier, goes one step further and lists the copy services of libraries that hold the document.³⁶ In preparing that bibliography, the authors identified about 25 population libraries holding IEC materials that were prepared to provide copies to outside requesters. In a few cases, these services are subsidized by a donor agency so that the service can be offered free to requesters in developing countries or working on the problems of developing countries. Generally, however, copies must be purchased at rates ranging from around US\$. 05 to US\$. 25 per page. Probably the most frequently cited cost is US\$. 10 per page, which means that somebody desiring 20 documents averaging 20 pages each would have to pay, at this rate, US\$40.00! Obviously, this is prohibitively expensive to almost all users. As indicated in the previous chapter, one partial solution to this problem is the greater use of microfiche for the distribution of copies of documents.

CHAPTER 7

Organizational Arrangements of Information Services

There are as many different organizational arrangements for providing information services as there are organizational structures among population/family planning agencies and institutions. But out of this assortment a few dominant patterns and their variations can be cited.

Most commonly, agencies and institutions have a library unit that provides services to staff members and extends its services to other libraries and persons within and outside of the country. These libraries, however, are generally under-staffed, under-budgeted, and it is all they can do to maintain services for their own agency staff.

A second type of organizational arrangement is the separate information center that is devoted entirely to collecting, processing, and disseminating information to professional and technical personnel in population/family planning. At the national level, the Population Center Foundation in the Philippines works this way. At the international level, ESCAP's Clearing House in the Population and Social Affairs Division and the Population Information Program at George Washington University function similarly. These centers are usually attached to a larger parent organization or institution however.

In some family planning programs, the information or communication unit that is responsible for information and education work with the public may also take on the function of providing information services to the professional and technical staff as well. In others, the information units are integrated with program management and evaluation information divisions. Furthermore, since the task of providing adequate information services to meet the range of information needs has become too difficult for any one agency, cooperative networks at the national, regional, and international

levels have been established. In this chapter we will look at the organizational relationships between the technical and professional information unit and other units of the national program, arrangements for sharing information within and across national programs, and how a particular country, Indonesia, has created a national information network.

RELATIONSHIPS WITH OTHER UNITS OF THE PROGRAM

The importance either of integrating evaluation and management information with professional and technical information into a single unit, or of at least establishing liaison between these different segments of a program, has been recognized by some agencies and institutions. In Indonesia, the National Family Planning Coordinating Board (BKKBN) has incorporated much of evaluation and management information into an information base from which data and information are used to inform the professional and technical staff about the progress of the program. In other programs, as mentioned before, the information/education/communication (IEC) unit has taken over the function of information services for professional and technical personnel as part of its overall responsibility. Under other arrangements, the IEC unit functions as the transformer and disseminator of information and materials collected and processed for storage and retrieval by the documentation unit or library. This transformation of information and materials is accomplished through newsletters, lists of current publications, special reports, etc. In essence, this activity becomes a publication program, and the publications program becomes a part of the overall information services program.

Research units inevitably write up research results, and researchers typically want a publishing outlet for their writings. What better channel is there than their own agency's information dissemination machinery--the publications program. Whether it be provided by the communication unit, the information unit, or the library, the research staff relies to a great extent on that unit to obtain pertinent materials and information for their projects. If an information unit is delegated the responsibility of maintaining program evaluation and management data, the researchers will have to turn to the information unit in the course of conducting evaluative research on the program. Ideally, of course, as projects are

executed, data from the projects will be continuously fed to the information unit for proper processing and storage so that information can be retrieved when needed at a later time. Again, the BKKBN and the Information Division of the Population Center Foundation seem to have managed this integration and coordination.

**BURDEN SHARING THROUGH NETWORKING:
ORGANIZING INFORMATION
SERVICES ACROSS PROGRAMS**

No information unit can adequately cover all of the information needs of its program. Pooling resources through networking gives participating institutions and agencies access to a much wider range of materials, information, and services than any single institution could afford.

With the convening of the Working Meeting on Asian Resources for a Population Library Information Network in Bangkok in 1973, serious discussion and planning began on establishing national, regional, and international information networks in population/family planning. By the beginning of 1977, a number of networks were actually in operation, and more are in the planning stage.

An example of a network is POPINFORM, a sophisticated system based on use of advanced communication technology. It was initiated and is coordinated by the Population Information Program (PIP) of the George Washington University Medical Center, under contract to the U.S. Agency for International Development (USAID). It includes the data bases of several organizations, which can be searched on line and interactively from many remote geographic locations. The data bases consist of: 1) bibliographic references with abstracts on fertility regulation, contraceptive technology, family planning programs, and population policy (PIP, George Washington University); 2) bibliographic citations and an index to a comprehensive collection of journal articles and published and unpublished reports in family planning program evaluation with special emphasis on international programs (Center for Population and Family Health, Columbia University); 3) tables and bibliographic references to the tables which contain demographic statistics, family planning program statistics, vital statistics, and economic and educational characteristics of populations and which cover all of the countries of the world with special emphasis on Africa, Asia, and Latin America

(U. S. Census Bureau); and 4) bibliographic citations, abstracts, and an index to U. S. information on family planning programs, pregnancy termination, complications associated with oral contraceptives and intra-uterine devices (Center for Disease Control, U. S. Department of Health, Education and Welfare). Other data bases are to be added to POPINFORM as institutions' information resources develop and warrant inclusion (Kolbe, 1974). In 1977 the Population Center Foundation in Manila may possibly run a year's experiment to determine the merits of having on-line access to the data bases in POPINFORM from that distance. The Population Information Program, including POPINFORM, is examined in more detail in Chapter 9.

An example of a national network is that of Indonesia's which is now in its fifth year of operation. The Bureau of Reporting and Documentation of the BKKBN designed, in 1970, a system for reporting and recording program data; implementation of the system began in 1972. Network members include, in addition to the BKKBN, the Indonesian Planned Parenthood Association, the Department of Health, the National Scientific Documentation Center, the Library of the National Museum, the Indonesian Library Association, the Indonesian Institute for Sciences, the Indonesian Council of Churches, Muhammadiyah, the Armed Forces, and the Departments of Information, Social Affairs and Religious Affairs.

As the officially-designed body responsible for the coordination of family planning programs nationwide, BKKBN is assigned the task of overall responsibility and coordination of the national information network. The BKKBN functions as a facilitating and linking force among implementing and cooperating units, not as a managerial or administrative body. The network enterprise is intended to be a cooperative effort with all participants fully consulted on and in agreement with policies and procedures of operations. The development of the Indonesian network is described in Chapter 9.

COMPUTERIZED NETWORKING: FOR WHOM AND WHEN?

A number of issues have arisen with regard to expansion of computerized information services, especially in the context of the

current stage of development of information services in the developing countries.

At a workshop held in 1975 in Honolulu, some of these issues began to emerge for intense open discussion. Discussants questioned whether a worldwide computerized system could be justified in terms of the high cost in relation to the small number of persons who would benefit from such services; whether such a high-powered system was necessary to fulfill the information needs of most professional and technical personnel in population/family planning; and whether the effort and resources might be better placed in developing local and regional information networks ("Workshop on the Role of Computers in the Development of an International Technical Information Network . . . , " 1975).

There were other issues raised during the workshop on information networking in general. These issues included the scope of geographical coverage, and coordination and control. For instance, questions were raised about how much information is relevant at the national or regional level? How much information is worth worldwide distribution? To what extent is regional and/or international coordination required? If coordination is required, what should the nature of such coordination be? Can the United Nations do this effectively? How can mechanisms be worked out to insure equitable access and input to regional or international centers?

Such issues and questions will continue to be discussed during the coming years, and discussion will most probably intensify.

CHAPTER 8

Supportive Activities in Population Information

Previous chapters have emphasized the services and other end products of various population information activities. This chapter examines the supportive activities, particularly at the international and regional levels, that help facilitate the initiation and continued development of information activities at the country level and within individual institutions.

These supportive activities take several forms. Among those described here are technical assistance and training programs, financial support for population information activities, and professional associations and publications for professionals working in this area. Several institutions play a paramount role in various supportive activities for population information professionals, but perhaps the one that has had the most important overall role in this area is the Technical Information Service of the Carolina Population Center. Within the Asia region, the Clearing House and Information Section of ESCAP's Population and Social Affairs Division has played a key role.

TECHNICAL ASSISTANCE AND TRAINING

Although the emphasis has been almost exclusively on libraries, clearly the most important institution providing technical assistance and training in the field of population information has been the Technical Information Service (TIS) of the Carolina Population Center. A key component of the TIS program has been its population library internships, which bring to the Carolina Population Center, usually for three months, selected population librarians from institutions in developing countries. The program is arranged on an individual basis. Each intern participates in all phases of the operation of the TIS library, develops a plan for the intern's own

library for the year following the internship, works on an individual project (for example, compilation of a special annotated bibliography), and, as time permits, audits University of North Carolina courses in library science or population.³⁷ Interns have come from Africa, Asia, and Latin America. TIS also arranges short-term orientation to the problems and needs of population libraries for visiting program administrators. TIS has played a key role in the implementation of two important regional training workshops in Asia (in September 1973) and in Latin America (in March 1976).³⁸ In preparation for these overseas training programs, TIS prepared source books containing background materials helpful in the management of a population/family planning library.³⁹

Besides its work in the area of training, TIS has offered various other forms of technical assistance. Staff members have provided consultation in the design of population libraries and in other facets of population information work. They have contributed to the development of a Library Manual, which is intended to offer practical how-to-do-it guidelines for the development and management of a population library. Through the TIS Microcatalog, which was described in Chapter 6, other libraries are able to benefit from the acquisitions and cataloging carried out by the expert staff at TIS. A number of other services and publications are provided by TIS (for example, PopScan bibliographies, a photocopy service, a catalog card service, an acquisition service, the International Directory of Population Information and Library Resources, and the Population/Family Planning Thesaurus).⁴⁰

The Clearing House and Information Section of the ESCAP Population and Social Affairs Division has played a key role in providing technical assistance for population information activities in the Asian region. Much of this work has been in close cooperation with the national governments or key academic institutions. In four countries--Indonesia, Korea, Pakistan, and Thailand--ESCAP has assisted in the organization of population correspondents workshops which are designed to open channels of communication between producers and users of population information and to provide participants with a forum for evaluating and making concrete proposals for improving the population information situation in their country.⁴¹ (ESCAP's population correspondents are professional staff members designated by governments, academic institutions, and non-governmental organizations to liaise with the Clearing House and Information

Section, providing news and informational materials that might be of interest to correspondents in other countries and answering queries submitted to the Section by government agencies and other population organizations in the region.)

The Clearing House and Information Section has also provided technical assistance in the form of consulting missions. In Pakistan three members of the Section's staff worked with the national Population Planning Council in designing a three-phase, five-year population information system for the country. Section staff have also worked closely with the National Family Planning Coordinating Board (BKKBN) in Indonesia to initiate the detailed implementation of a plan for a national population/family planning information network.⁴² In the context of these missions and through informal arrangements at the offices of ESCAP in Bangkok, the Section has also been able to offer some training in documentation and related areas. The Section cooperated closely with the TIS in operating the Asian population librarians institute described above.

The East-West Population Institute has from time to time accepted interns to work with its well-developed collection of population materials. The arrangements are essentially ad hoc and emphasis is placed on staff from institutions that have an overall cooperative arrangement with the Institute. For several years the East-West Communication Institute had a regular program of Documentation Interns, many of whom came from population-related institutions, but this program is no longer offered. Other institutions located in the United States are prepared to make arrangements of one sort or another for the short-term training or orientation of librarians and information specialists from other institutions.⁴³

FINANCIAL ASSISTANCE FOR POPULATION INFORMATION SERVICES

By and large financial assistance for population information services has come from the same agencies that have assisted other aspects of population, such as the U.S. Agency for International Development (AID) and the UN Fund for Population Activities (UNFPA). USAID, for instance, funds the Population Information Program at George Washington University and much of the work that has been carried out by TIS.

Several agencies, however, have special interests in this area. The International Development Research Centre (IDRC), a Canadian development agency, has major emphasis in four areas, one of which is information science. The IDRC Information Science Division has supported several activities in population information, especially in the Latin American region, where it is helping finance DOCPAL and assisted the 1976 training workshop for population librarians. IDRC also helped support the POPINS feasibility study. One member of the Division's staff has full-time responsibility for population-related information.

Another agency with strong interest in population information services is the Ford Foundation. The communication specialist in the Foundation's Office of Population has helped develop small grants in support of a number of population information activities, including several carried out by EWCI and by the Interamerican Training Center in Communications for Population (CIACOP).

In the past, the Asia Foundation was also interested in this area, having assisted several activities in Asia associated with the development of national and sub-regional networks.

PROFESSIONAL ASSOCIATIONS IN POPULATION INFORMATION

The oldest and for many years the only professional association in the area of professional/technical information services for population is the Association for Population/Family Planning Libraries and Information Centers--International (APLIC), which was founded about ten years ago through the efforts of TIS. Meetings are held in April each year in connection with the annual meeting of the Population Association of America (PAA), which frequently has a joint session with APLIC to facilitate the dialogue between APLIC members and key users of population information services as represented by the PAA membership. APLIC publishes the proceedings of each annual meeting.

APLIC has assisted TIS and local host institutions (ESCAP and CIACOP) in conducting the Asian and Latin American training institutes described above. It has compiled a directory of training opportunities for population librarians. In several areas, APLIC

members have been involved in compiling union lists of serial publications.⁴⁴

In early 1976, at the Latin American training seminar described above, population librarians and information specialists from 16 countries formed a professional association for that region, called the Asociacion Interamericana de Centros de Informacion de Poblacion (AICIP). A Coordinating Committee, consisting of five area representatives, was appointed and, with support from the Ford Foundation, met in Bogota to prepare the Association's by-laws and to develop a program of activities. Among activities under consideration for AICIP are the publication of a newsletter with information on meetings, new local publications, training opportunities, and compilation of a directory of on-going research in Latin American population institutions.⁴⁵

PUBLICATIONS FOR POPULATION INFORMATION SPECIALISTS

As indicated above, AICIP is planning to establish a newsletter for its members. The New York chapter of APLIC established a newsletter known as the APLICommunicator on behalf of the entire Association in early 1975. Typically appearing on two sides of one sheet, the APLICommunicator is issued on a quarterly basis and contains news of developments in population information, relevant publications, announcements of upcoming meetings, and similar information. Various general purpose newsletters issued by organizations that are interested in the population information field, such as ESCAP and EWCI, have carried news items and articles on the subject. The key publication in the field, however, has been the quarterly journal Overview: The International Journal of Population Libraries, which has been published by TIS since 1972. Unfortunately, lack of funding forced TIS to suspend the publication of Overview at the end of 1976, although it may be revived by late 1977. While it appeared, Overview carried basic information on population library development and management, new resources of special value to population librarians, and other relevant news items.

CHAPTER 9

Examples of Operational Information Services

In Chapters 1 through 8, the authors have examined professional and technical information activities within the context of communication processes and strategies; presented an historical review of the development of information activities; and discussed the benefits of information services to population programs and the users of population information and their information needs. The different types of activities and services and the variety of arrangements for providing information services have also been described. This chapter will now examine the actual program operations of several different functioning information centers and networks.

DEVELOPED NATIONAL INFORMATION CENTER AND NETWORKS

A relatively short time has elapsed since the discussion of networking at the Bangkok meeting in 1973 and the establishment of several national networks in Asia. Indonesia and Korea can be cited as two countries which have networks actually functioning at the present time. In Ghana, there are several institutions cooperating to service not only the needs of Ghana but also those of other countries in Africa. In Latin America, the Population Documentation Center of Javeriana University in Colombia represents a good example of an organization that provides services to other institutions as well as to libraries specializing in population.

Indonesia

Based on the strategy of the family planning program--that all efforts toward its implementation should be coordinated by the BKKBN including the national information and documentation network --Indonesia began its network activities in 1972.

During the initial year of the Indonesian network, a feasibility study for establishing such a system was carried out through meetings and consultations with international and national organizations having similar projects; a training workshop for trainers was conducted jointly by EWCI and the Indonesian Planned Parenthood Association (IPPA); and an assessment of information needs and awareness was carried out by IGCC and the BKKBN (Bradshaw, 1974[a]). Translation of Carolina Population Center's (CPC) Thesaurus was completed in order to be used in the first training program for staff of family planning programs the following year.

During 1973, a team representing different members of the network made a comparative study of family planning/population network systems in Singapore, Manila, and Bangkok and examined classification schemes for ephemeral materials. The BKKBN and the Department of Health conducted an inventory of information resources, using a questionnaire prepared by the BKKBN, EWCI, and the Population Council. Approximately 49 libraries were identified at that time. Also during that year information services on research findings and statistical data were introduced to program administrators through a publication called Cukilan Data (its circulation has increased from 3,000 copies to 10,000 copies in 1976/1977); and the first national training workshop was conducted jointly by the Department of Health, IPPA, and the BKKBN. It was attended by 40 officials from the three institutions.

Expansion of the Program. The 1975 workshop on Thesaurus Application in the Family Planning/Population Network resulted in a recommendation that the CPC Thesaurus be used as a standard for subject headings by all organizations in the network. Because the participants found it difficult to use the English alphabetical order, the workshop also recommended that an index in the Indonesian alphabetic order be issued. A second national training course was held for staff already trained at the first workshop and for new staff, focusing on the use of the Thesaurus as a standard for subject headings. Further utilization of information and materials was promoted through information sheets called the Media AVA, Indeks Artikel, and Daftar Literatur and Ephemera, and through monthly meetings for network members at the central level to which special guest lecturers were invited to increase staff knowledge and skill. A directory of network library-units was published, containing the names and addresses of 97 units. Supplements with information on new units are to be issued from time to time.

To supplement the in-country training activities, eight staff members from the BKKBN and implementing agencies participated in a Documentation Internship at EWCI. Others attended a seminar on documentation in the field of human reproduction, family planning, and population dynamics in New Delhi, and one member was sent to the University of Chicago to get a degree in Information Science.

Additional bulletins of information for special audiences were published, namely the Warta Kontrasepsi (or Contraceptive News) for medical doctors, and the Warga Sejahtera (or Welfare Citizen) for village heads. Also for students, a publication similar to Z. P. G. Bulletin was issued.

The BKKBN and the other members of the network have also supported efforts to establish an international network. Preliminary steps were made to take part in the project of Computerization of Translation of Population/Family Population Information, in cooperation with the University of Hong Kong under the co-sponsorship of ESCAP and the Institute of Languages, University of Indonesia. In addition, a team from ESCAP visited Indonesia to help in the consolidation of the network (Olson, 1975). Network members also participated in the Workshop on Systems Interconnections for Population/Family Planning Information Networking which was held in Malaysia in 1976 and in the Workshop on National-International Population Information Network Linkages which was held immediately after the Malaysia meeting at EWCI in Honolulu.

Further Activities. As described in the Five Year Plan of Action (Indonesia. National Family Planning Coordinating Board, 1975), further activities to be conducted include the following:

- Continuing to expand, refine, and revise existing operations as required (staffing, equipment, materials, supplies, training, etc.);
- Training (continuation of the national training programs for existing staff). Also some short-term sessions at both the center level and the provincial level;
- Continuing assessment of information needs of program staff;
- Applying innovations in technology to network operations.

The program has already initiated a machine translation program into Asian languages and computerized union list of materials might be introduced if warranted by conditions and the situation in the future;

- Providing field-observation training for national network staff from other countries to exchange experiences and knowledge;
- Developing increased liaison with regional and international networks;
- Reviewing and evaluating the Five Year Plan; and
- Preparing the Second Five Year Plan of Action ("Country Report: National Information and Documentation Network on Family Planning/Population of Indonesia," 1976).

Korea

In 1974 the Workshop of the ESCAP Population Correspondents from Korea was held in Seoul. The principal objectives of the workshop were: 1) to review and evaluate the current situation and problems of population information and 2) to discuss the feasibility of establishing a national population information system and its functions. Identification of information needs, their continuing identification, tailoring information to meet the various needs, information exchange at the international level, and language problems were also discussed at this workshop. It was the first step toward the establishment of formal links with other organizations, the improvement of the population information situation at the institutional level, and the establishment of a national population information system in Korea.

In October 1974, to carry out the recommendations of the Workshop, the National Population Clearing House (NPCH) was established at the Korean Institute for Family Planning (KIFP). The existing documentation center was integrated into this new organizational structure.

The National Population Clearing House. The main purpose of the National Population Clearing House is to make a continuous effort to assess and improve the population information situation in Korea and to strengthen the collection, organization, and dissemination

of population information. Among its functions are the following: 1) the collection, organization, and retrieval of population information; 2) a continuing study of information needs and utilization; 3) the production, reproduction (including tailoring), and dissemination of population information; 4) systematic coordination with other specialized information centers and promotion of their activities; and 5) organized information exchange at the international level.

The staff of the Clearing House initially consisted of: one chief, two information researchers, two editors, two librarians, and two audio-visual specialists. As an important part of the Clearing House, the library was given the function of collecting, organizing, and retrieving population information.

A Coordination Council was formed, the major functions of which were designated as follows: 1) to review and evaluate information activities and the operation of the Clearing House; 2) to collect, review, and evaluate feedback from the users; and 3) to make recommendations for improvement of the Clearing House. Fifteen representatives from other major institutions in population- and family planning-related fields in Korea were invited to become members of the Coordination Council. This Council, which is designated to promote wide cooperation, meets twice a year.

Basic Services Provided. The basic services provided by the Clearing House are reflected in its major activities over the last one and one-half years. Besides its regular library and documentation services, the Clearing House has carried out the following related activities.

As recommended at the ESCAP Correspondents Workshop, the first Korean Population Information Survey was conducted from November 1974 through August 1975 by the Clearing House. Following the survey, the "Korean Population Information File," which consists of four card files--institution file, project card file, documents card file, and coordinate index file--was set up in the Clearing House. It is updated through follow-up surveys as well as through routine library acquisition activities. (The second survey was carried out in April 1976, covering 105 institutions and organizations throughout the country [Kim, 1976]). Two joint catalogs have been compiled: one (published in November 1974) for the books held by the Planned Parenthood Federation of Korea (PPFK) Library and those held by the KIPF Library and the other (published in September

1975) for books held by the Center for Population and Family Planning Library, the PPFK Library, and the KIFP Library. Since the collections of other libraries in this field are sufficiently organized to be added to the current joint catalog, a union catalog of population/family planning collections will be compiled.

Data bank services may eventually be provided by the Clearing House in coordination with the Data Processing Section of KIFP. Raw data on achievements of the national family planning program are gathered, analyzed, and stored at the Data Processing Section, which has recently installed a computer terminal linked with the computer at the Korean Institute for Science and Technology.

The Clearing House tries to collect copies of all documents identified through its surveys and organized in the Korean Population Information File. The original source of each document is recorded so that even if the Clearing House does not have a copy in its collection, a requester can be referred to the original source. The Clearing House makes continuing efforts to collect all materials that are relevant to its subject scope.

A Korean Population and Family Planning Bibliography series has been published in English. Published series to date are: No. 1 --Population/Family Planning Program; No. 2--Family Planning Methods; No. 3--Family Planning Status and KAP; and No. 4--Population and its Related Topics.

To further the network's objectives, two monthly newsletters were designed as additional information activities. One of these is a simple newsletter directed at fieldworkers, and the other was to be a short monthly review for program leaders at the administrative level. However, only the former, entitled Family Planning Newsletter for the Fieldworkers, received government clearance. It has a circulation of 4,000 copies. The Clearing House also compiled the Population and Family Planning Directory in Korean based on an earlier English version of the KIFP's Directory of Organizations and Individuals Engaged in Population Activities in the Republic of Korea. The Clearing House puts out a bi-monthly accessions list and produces slides on KIFP activities and the national population program.

In addition, KIFP continues to publish the KIFP Bulletin. This quarterly publication is intended to facilitate the exchange

of ideas and sharing of information about the Korean family planning program and the activities of KIFP with individuals and organizations located primarily outside of Korea.

Other publications of the KIFP include: reports on research projects contracted to researchers outside of KIFP; Family Planning Program Evaluation (in Korean with English tables, monthly); Journal of Family Planning Studies (in Korean with English abstracts or vice versa, bi-annually); Korean Family Planning Program in Charts (in Korean and English, annual); and KIFP Brochure and Annual Report of KIFP Activities.

Ghana

Of major importance in Africa south of the Sahara are the population information activities taking place in Ghana. The United National Regional Institute for Population Studies, which is based at the University of Ghana, and two divisions of the University--the Institute of Statistical, Social and Economic Research and the Population Dynamics Programme--have jointly established the Population and Social Sciences Library (PSSL). The PSSL has developed a valuable collection on the field of population with special reference to Africa. This library serves as a national focal point for population-related information activities within Ghana, building network links with, among others, the Ghana National Family Planning Programme. PSSL has conducted inventories of research activities in population and has offered advisory services to other libraries in the region (for example, the Liberian Demographic Unit, the Medical Library of the University of Khartoum, and the Family Guidance Association of Ethiopia). Due to the severe need for trained population librarians in Africa, the PSSL plans to initiate a training program. As a pioneer in population librarianship in Africa, the PSSL has the required experience and infrastructure (in terms of staff, holdings, equipment, etc.) to enable it to help develop or contribute toward a regional information network for Africa (POPINS Technical Task Force, 1976).

Colombia

In recognition of the importance of population dynamics in Colombia's national development, Javeriana University is creating an interdisciplinary studies program which is being planned and developed by 16 departments and faculties of the university. The

Population Documentation Center was established to serve this program. The users of the Documentation Center include not only researchers and students from the university working in population and related fields such as family planning, health sciences, sociology, and education, but also persons from local, national, and international institutions, with preference given to those from Latin America.

The Documentation Center began its activities in November 1973. Initially, it received assistance from the Technical Information Service of the Carolina Population Center. The Documentation Center also has received help from faculty members from the university, who cooperate by informing the Center about program needs and by offering advice and suggestions.

The professors and students of Javeriana University are entitled to use materials from the Documentation Center both in and outside of the Center. By means of inter-library loan, the Documentation Center makes its materials available to other institutions and libraries specializing in population. Reference services are offered to users who come to the Documentation Center and to others by telephone or letter.

For future activities, the Center has considered the organization of a cooperative information network for population libraries in Bogota. Some initial contacts have been made for such cooperation, and it has been agreed that, as a first step, subject headings should be standardized, based on the CPC Thesaurus. The Thesaurus will be translated into Spanish, so that it may serve as a guide to all Latin American libraries with population materials. The Documentation Center is also considering the formation of a union catalog of materials on population and the organization of a more effective system of inter-library loans (Guzman, 1975).

REGIONAL AND INTERNATIONAL INFORMATION CENTERS AND SERVICES

International and regional agencies were among the first to become involved in promoting effective information services for population and family planning. IPPF was active in the 1950's before many programs were in existence. The Clearing House of ESCAP's Population and Social Affairs Division began regional

activities in 1969. The Population Information Program (PIP) and the East-West Communication Institute (EWCI) were both mandated under grants from the U. S. Agency for International Development (USAID) to develop information services for population and family planning programs, especially in the developing countries. These four institutions are examples of major regional and international information centers and the kinds of services which such centers have been able to contribute to national programs.

International Planned Parenthood Federation (IPPF)

In 1952, IPPF first began its work in information with publication of Around the World News of Population and Birth Control, forerunner of IPPF News. Today, through the network of its seven regional offices and eighty-four national associations spread around the world, IPPF is not only a resource of information on population but also generator of information. The publications of IPPF range from one of general information, People; an information magazine, IPPF News; and two medical bulletins, to approximately 20 other occasional publications in the medical field and many in the various sociological fields linked with population and family planning.

The Informational System of IPPF. IPPF has been increasingly conscious that its contribution to family planning programs could be even greater if it were able to control the enormous volume of "non-bibliographic" information which circulates in all directions between the London office and the associations and which can best be described as "facts and figures" in family planning technology and services. As a result, IPPF has decided to reorient its library in the direction of a data bank. Since more emphasis is to be placed on information and reference services and the exploitation of ephemeral documentation, IPPF decided to change the title of the unit from Library to Library and Documentation Service.

The new service has the unusual feature of including an archive unit--a central registry where all letters and correspondence received by and sent from the central office of IPPF are filed. This unit is but one of the collections of the Service and is adjacent to the library area.

The Collections. The collections consist of three units: 1) the filing unit where correspondence is kept; 2) the documentation unit, where background files are stored in filing cabinets and where

conference proceedings and United Nations documents are filed in pamphlet boxes; and 3) the library itself, where books (approximately 6,000), periodicals (approximately 180 titles), and newsletters (approximately 150 titles) are shelved.

Services to National Programs. The library, founded in 1964, issues a quarterly bulletin (circulated to 2,000 correspondents) and has produced over 40 special bibliographies. These bibliographies are prepared on the basis of recent additions to the collection as well as on articles indexed in periodicals. IPPF's proximity to publishers enables it to assist some libraries in developing countries in obtaining books and documents. In addition, for those libraries of family planning associations which have very limited budgets, book parcels have been sent free with catalog cards. Since 1975, IPPF has been providing "follow-up" in-service training for population librarians in the central office in London.

Non-Bibliographic Information Service. The attempt made by IPPF to monitor information of all categories has led the Library and Documentation Service to devise new records for non-bibliographic data such as miscellaneous information about personalities active in family planning country data on socioeconomic and communication indicators, and project descriptions.

A new procedure has been introduced to track internal information; the "open file" and the "greens." In-coming letters, documents, and journals are scanned before office time every morning and a flash bulletin, Open File, is immediately circulated to all members of the staff. Out-going letters have a supplementary copy (the "greens") which is sent to the archive unit of the Library and Documentation Service. Plans are under way to incorporate information gathered from other sources into the Open File and then to break down its contents into information streams directed at identified target users.

The Education and Training Department of IPPF has conducted a survey of training facilities and programs among family planning associations and published a draft directory of training institutions and programs for family planning staff. Information is being widely sought by survey methods and by observation in order to improve this information.

In October 1973, IPPF launched People, a news magazine for an international readership of leaders in the family planning movement, as well as decision makers, policy setters, and opinion leaders in fields closely related to the movement. The purpose of People is to provide comprehensive news coverage of important developments across the world in a dozen or so related fields and to encourage the expression of different views and opinions on aspects of population policy and family planning services (Dennis, 1974).

PIP--The Population Information Program
at George Washington University

The Population Information Program (PIP) started in 1972 under a grant from USAID. It is an information analysis center which publishes state-of-the-art reports on developments in methods of fertility regulation and contraceptive technology. Reports on family planning programs and population policy are also published. The reports are distributed to a worldwide audience, primarily in Asia, Africa, and Latin America.

PIP also initiated and coordinates POPINFORM, an on-line computerized information retrieval system with multiple files containing information on population, contraception, family planning programs and evaluation, and international demographic and vital statistics. POPINFORM began in August 1973, as a single-file on-line information storage and retrieval system, to fill an international need for rapid dissemination of up to date information on the latest developments in contraceptive technology.

Information processing for the Population Information Program's file in the POPINFORM data base begins with the identification of relevant documents. PIP subscribes to over a hundred periodicals that are considered "core." They include such titles as Obstetrics and Gynecology, Fertility and Sterility, Lancet, and the British Medical Journal. Publications are searched as issues are received and relevant articles are accessioned for input to POPINFORM. In addition to primary sources, all the major secondary sources that might index documents on contraception are searched, and several printed indexes are scanned regularly including Psychological Abstracts, Chemical Abstracts, and Population Index.

In addition, PIP has established liaison with organizations in Asia that send documents that would not find their way into the system through the regular channels just described. Among these organizations are the IGCC in Kuala Lumpur and the USAID Office of Population in Manila. Books are also included in the data base, but, almost without exception, they are analyzed and each chapter is entered as a separate document. Other input includes papers presented at conferences, U.S. government documents, U.N. documents, and occasionally even personal correspondence that describes new research or new data from leading people in the field. Documents identified through secondary sources are acquired through a vigorous inter-library loan program.

Abstracts are written by a staff of part-time abstractors many of whom have advanced degrees in biomedical subjects. The abstracts are carefully written and subjected to thorough editing before they are entered into the POPINFORM file. The abstracts provide the terms for free-text searching of the data base. PIP's file is updated every week. Each update includes 250-300 new records. While PIP's file was being designed and created, another information processing activity was being carried out: the development of a thesaurus of terms covering contraceptive technology. The thesaurus, which can be displayed and scanned on-line from a POPINFORM terminal, has also been published.

Network Concept and POPINFORM. Very early in the planning and development phases, the network potential of POPINFORM became apparent for two reasons: there was a need for a centralized source of population information, and it was clearly possible to create such a centralized source in POPINFORM. Thus, the inclusion of files from other organizations having unique collections of population-related information was a logical next step in the development of POPINFORM. The second file to become part of POPINFORM was that of Columbia University's Center for Population and Family Health. The subject coverage is international family planning program evaluation. The third file was from the U.S. Census Bureau, International Statistical Programs Center. The Center has developed a collection of over 4,000 tables and bibliographic references to tables of demographic and vital statistics. The tables are in non-standardized tabular format. Coverage is worldwide in scope with primary emphasis on Asian, African, and Latin American countries. The fourth file in the POPINFORM data base was provided by the

Family Planning Evaluation Division of the Center for Disease Control in Atlanta. It includes over 6,000 citations with abstracts and index terms. The entries comprehensively cover U.S. information on family planning evaluation, pregnancy termination, and complications associated with oral contraceptives and IUDs. The East-West Communication Institute's collection of material on information, education, and communication in population/family planning became the fifth file in the POPINFORM data base. The most recent addition to POPINFORM was that of the Prostaglandin Information Center of the George Washington University Medical Center. This file covers worldwide literature on prostaglandins relating to fertility regulation. These six different files make up POPINFORM which operates as a bibliographic and/or data retrieval tool and an information searching tool for libraries as well. POPINFORM is available by subscription for on-line searching anywhere in the United States.

International Access to POPINFORM. International access to POPINFORM is of considerable interest to the contributors to the data base since population programs and information activities are international in scope. Population assistance is provided to many developing countries by the United States through USAID with information services included in many assistance programs. Information transfer has relied chiefly on print media through numerous international publications programs. The development of POPINFORM makes possible the transfer of population information by electronic means. The technical capability was demonstrated when POPINFORM was accessed successfully from terminals in Asia and Europe.

In June of 1974 POPINFORM was demonstrated in Manila during the inauguration of the Population Center Foundation. Access to the computer in Washington, D.C. was established using commercial telephone and communications satellite. This was the first successful commercial demonstration of an on-line computer system between the Philippines and the United States.

In September 1974, POPINFORM was demonstrated for three days in Stockholm during the World Medical Assembly's Conference on the Physician and Population Change. There have been many other demonstrations of POPINFORM in the United States including one from Honolulu in June 1974 which used the regular U.S. telephone system but was nevertheless an overseas demonstration (Kolbe, 1974).

East-West Communication Institute (EWCI)
Activity in Population/Family Planning Information

The East-West Communication Institute (EWCI) is one of the five problem-oriented institutes that constitute the East-West Center, a federally financed educational institution in Honolulu, Hawaii. With a grant from USAID, EWCI was able to add a population dimension to its program in developmental communication. The activities under this grant were completed in 1977. However, the population information program of the Institute exemplifies a full range of technical information services as provided by an international clearinghouse.

Interest in the area of population at the East-West Communication Institute focused on the ways in which information, education, and communication (IEC) could contribute to the solution of pressing population problems. Among the many activities developed by the Institute in the area of population/family planning IEC, considerable stress was placed on information services designed to meet the needs of population/family planning professionals. Institute staff was particularly interested in the process of sharing and using information in the population/family planning field. The program was based on the notion that a widespread communication problem within and between the countries of East and West (and between researchers and practitioners) is the inadequate sharing of information for problem solving. Among the objectives of the program at EWCI were: 1) to develop new knowledge about the processes of the exchange and effective use of information; 2) to examine and evaluate how different ways of presenting and transmitting information and of using new communication technology can facilitate these processes; 3) to develop, pretest, disseminate, and evaluate publications and other products (on population and other aspects of development communication) as a vehicle for studying these processes; 4) to establish and develop with other institutions continuing, collaborative interaction on the problems of information sharing and utilization; 5) to help develop in Asia and the United States professional capabilities that can be applied to the solution of these problems; and 6) to prepare and disseminate research findings and other practical project results to people working on solutions to these problems.

The Institute's early work in the area of information services consisted largely of the following components: 1) a series of 34 reports on the support or services available to population IEC action

and research programs from international organizations, donor agencies, and research and training centers; 2) a counterpart series of 20 reports on country IEC programs and their needs; 3) a directory with profiles of 78 organizations that provide some form of assistance or services in this field; 4) the IEC Newsletter, which described innovative ideas, reported useful new resources, and reviewed the results of important new research in the field; 5) a separate annotated list of newly acquired documents on population/family planning IEC that was distributed with the Newsletter; 6) an annual cumulative list, the final issue of which contained about 1,000 entries of documents in the EWCI Resource Materials Collection, and 7) what the IEC Materials Service, which provided, upon request, microfiche or xerox copies of the documents listed in the annotated lists or the annual cumulative lists. This copy service was provided at cost or on an exchange basis. The Institute also worked closely with regional and national population information activities. For instance, the EWCI Resource Materials Specialist assisted the BKKBN, in collaboration with IGCC, in the development of the Indonesian five-year plan of action for the national family planning information network.

Nature of the Information Available from EWCI. The Institute collected about 4,000 documents related to population and family planning communication and education. Emphasis was on so-called "fugitive" and ephemeral materials such as consultants' reports, conference papers, program documents, and mimeograph research reports since relatively little of the material in population communication appears in journals and other published sources.

By virtue of its wide range of contacts, particularly in Asia, the Institute's collection has a very large percentage of materials from outside the United States. This collection of population/family planning materials was probably the most comprehensive in the world, although its coverage of population education, particularly the formal or in-school aspects of that field, was relatively limited. In addition to documents, the collection contained over 1,000 audio-visual materials assembled from population communication programs from around the world. (These were transferred to the library of the School of Public Health, University of Hawaii.)

The Institute has experimented with the most appropriate approach to the computerization of its collection. For this purpose, a small data base (consisting of about 150 documents) was added to

the POPINFORM system through the courtesy of the Population Information Program at George Washington University. A much larger data base has been placed on computer at the University of Hawaii. The Institute has been able to provide outside requesters with computer searches of its documents. A special descriptor list for the entire collection, based on a communication thesaurus developed by UNESCO, is under refinement.

EWCI and the Population/Family Planning Information Network. Convinced that no one organization can cope with the ever expanding flow of informational materials being generated in the population field, the Institute took various steps to encourage the strengthening of relationships between organizations with information resources that can be shared with each other. This process was initiated with a one-week workshop in April 1975, at the East-West Center. About 20 representatives of Asian, American, and international information centers met together to discuss ways in which the participating organizations could collaborate in meeting the needs of population program personnel and population researchers. Special emphasis was placed on the role of computerization in facilitating the exchange of information within the framework of any network that might be established.

The Institute also hosted or co-sponsored smaller working meetings dealing with technical topics associated with networking. In April 1976, IGCC (Inter-Governmental Coordinating Committee, Southeast Asia Regional Cooperation in Family and Population Planning) and EWCI held a workshop which focused on the development of standards for exchanging and describing information. The workshop was intended to facilitate the movement of information within and between countries in Asia. Besides covering operational matters to facilitate networking, such as reporting on acquisitions and distributing information, the workshop reviewed and altered a draft list of basic descriptor terms and scope notes.

Also, during 1976, the Institute cosponsored the work of a Technical Task Force which conducted a feasibility study on a world-wide computerized bibliographic system, tentatively called POPINS (see Chapter 6 for additional information on POPINS).

Handbook of Population/Family Planning Information Resources. In order to encourage better use of the information resources that already exist in the field, the Institute compiled a

handbook, Sources of Information on Population/Family Planning: A Handbook for Asia. Detailed profiles of 65 organizations indicate the nature of the information services and publications on various facets of population/family planning. The Handbook includes a detailed structured subject index consisting of about 450 different terms, and an alphabetical subject index. Under each term in the latter index, the names of agencies which can provide information on that topic are listed (Konoshima, Radel and Buck, 1975).

Professional Development in Information Work. Interns have come to the Communication Institute to take part in an individualized program of Internships in Communication Documentation and Information Dissemination. This program was intended to impart knowledge and provide practical experience in the processes of information storage, retrieval, dissemination, and utilization. Out of each group of about five Documentation Interns, usually one or two came from population/family planning organizations.

To provide more systematic exposure to the topic of information utilization on the part of the Documentation Interns and other professional development participants at the Institute, staff members, in collaboration with the Philippine Population Center Foundation, developed a one-week training module entitled Using Information for Problem Solving: A Module for Administrators, Information Resource Persons, and Researchers. The module focuses on learning how to identify and apply information, including research findings, in order to solve practical problems in an action program. Examples come primarily from the areas of population communication.

Research on Information Sharing and Utilization. Until 1976, the Institute had conducted relatively little research on information sharing and utilization. Collaborators in Taiwan produced, as part of the Institute's paper series, a report entitled Knowledge into Action: The Use of Research in Taiwan's Family Planning Program (Cernada and Sun, 1974). In collaboration with the Institute, Lois Bradshaw conducted the research for her dissertation on the Distribution and Utilization of Periodical Technical Population Information in Southeast Asia (Bradshaw, 1974[a]). The Institute supported a doctoral student from the Philippines (under a Joint Doctoral Internship) who was preparing a dissertation for Stanford University on the impact of technical information on the performance of family planning clinical staff.

During 1976 and 1977, the Institute worked with national family planning agencies in Indonesia, the Philippines, and Thailand on a collaborative research project on information needs and uses in population/family planning. Data was also collected in Korea, Pakistan and Malaysia. The results of the research will be available in the Fall of 1977 (Konoshima, 1976[b]).

The End of a Pioneering Era. 1977 was the final year of the Institute's large-scale information activities in population and family planning. The USAID grant under which the Institute carried out these activities was completed in September. Other institutions or agencies will most probably take over where the Communication Institute stopped and continue the work in providing professional and technical information services for population and family planning.

The ESCAP Population Information Clearing House

Development of the Clearing House. In 1969 ESCAP (then known as ECAFE) established a Clearing House and Information Section for population. At that time, major activities were confined to reporting on program development and administration and to collecting relevant material. However, it was apparent in 1970 that the three professional staff members in the Section could do little more than answer routine requests for information, and analyze and chart returns from regional fact-finding surveys. To cope with the growing workload, a three-year proposal for "Building and Strengthening Collection and Dissemination of Population Information" was developed and submitted to the United Nations Fund for Population Activities (UNFPA). This proposal was approved in 1971 and, as a result, other categories of activity were established.

Information Research Unit. The Clearing House and Information Section established a research arm which specialized in delineating the general situation in the population information field. The research unit, consisting of two social scientists, was assigned the task of conducting special surveys relating to population information and the analysis of resulting data. The surveys and analyses were used to identify trends and the special characteristics or problems of sources and producers of population information. For example, surveys were conducted to locate key personnel in the field of population, to identify institutions active in demography, and to discover which periodicals in the region publish a large percentage of information on population.

Such basic information has enabled the Section to set up ESCAP's network of population correspondents, who are nominated by their institutions or agencies to supply continuing information on new research and program projects and on curricula developments at their institutions. They also provide information in response to specific requests and, on a priority basis, receive answers to special questions of their own. In mid-1976, ESCAP had approximately 400 correspondents in governmental and non-governmental organizations, and academic institutions (including a number of family planning training institutions in 33 countries).

Ideally, information should reach those best able to make effective use of it, and it should reach them as quickly as possible. Toward this goal, ESCAP sought to define the types of population information available in the region, the range and precision of present distribution and the gaps remaining to be filled.

For example, a survey carried out by ESCAP in 1972, and reported on at the Second Asian Population Conference, revealed that 19,000 pages of printed population information were produced on a non-commercial basis in a single year within the region. At the same time, the survey revealed many weaknesses in the distribution of this often very valuable material.

Following up on earlier work, a new survey was conducted in February 1976 to determine the special subject interests of all correspondents and alternates and to develop subject interest profiles which could be used to tailor information to the needs of the users. Preliminary returns indicated interest (in descending order of priority) in family planning, migration, fertility, mortality, population policy, manpower and employment, population and development, and population trends.

The Role of Correspondents. The correspondents' network, with its three categories of correspondents, provides a means to collect and disseminate information easily, regularly, and quickly, thereby maximizing sharing and utilization of information. Members of this network provide ESCAP with up to date information about population activities in their organizations and countries which ESCAP in turn disseminates through its Population Headliners and Asian Population Programme News. Occasionally, correspondents are asked to provide information on particular subjects. For example, a request for references on migration brought responses

from correspondents in many countries. Correspondents also provide ESCAP with population materials such as publications from their organizations, country reports, research reports, etc., and in turn they sometimes serve as distribution points for materials sent by ESCAP. Through this network, ESCAP is aware of activities in the member states and is better able to share relevant information with them.

In the process of developing this network, it became clear to ESCAP that the effectiveness of a regional information center would be hampered by inefficient information sharing and coordination at the country level. To strengthen the regional center, measures were needed to coordinate information systems and improve communication at the national level. As an initial step toward achieving this, ESCAP organized national workshops of population correspondents in Indonesia (1973), Thailand (1973), Korea (1974), and Pakistan (1974), enabling participants to identify and solve communication problems between information producers (researchers) and consumers (administrators and decision makers). Stemming in part from these workshops, national networks and information/documentation clearing houses were planned and developed.

The ESCAP Population Library/Documentation Centre Network. The ESCAP Population Library/Documentation Centre Network came into being following recommendation No. 9 of the Working Meeting on Asian Resources for a Population Library Information Network held at Bangkok in September 1973. The recommendation stated that "a regional association of documentation centres should be established in the Population Division of the ESCAP Secretariat." At present, the ESCAP Population and Social Affairs Division, through its Population Library Network, maintains regular contact with over 100 population libraries in the region. It serves as a regional focal point in an effort to encourage the systematic collection and dissemination of information.

Bibliographic Information Exchange. In its role as the central resource base, the ESCAP Population and Social Affairs Division Reference Center issues a listing of current population-related materials of special relevance to the ESCAP region. The name of the monthly publication is ADOPT: Asian and Worldwide Documents on Population Topics. To guide readers, the bibliographic citation of each document listed is followed by "descriptors" or "key words" that represent an in-depth analysis of the subjects covered in the

document. An abstract or a brief summary of the content follows. Information is also supplied on the sources where the document can be obtained. ADOPT is distributed free of charge to population libraries, documentation centers, and professionals, primarily within the ESCAP geographic region.

Compilation of a Regional Population and Family Planning Thesaurus. ESCAP reviewed major thesauri in the population/family planning field and other related subjects in order to build an appropriate descriptor's list to suit the particular nature of its collection. The purpose of establishing the descriptor list was to facilitate the retrieval of population information from ESCAP's resource base.

Training and Consultation. ESCAP has set up training programs for population librarians at the national level on an ad hoc basis. More than 150 individuals from various countries in the region have been trained in documentation-processing work, conducting literature searches, and identification of resources in population areas. With the extra space made available to the Division upon moving into the new United Nations headquarters building, a separate training room is planned to accommodate more trainees for expanded programs in the future.

The initial phase in establishing the network of population libraries and documentation centers in the countries of the ESCAP region has focused on the national level. ESCAP, upon request, has provided advisory and technical assistance to several countries to set up or strengthen population libraries and documentation centers. Principal efforts thus far have been in Malaysia, Indonesia, and Pakistan. Requests for technical assistance have also been received from Sri Lanka and Bangladesh.

Development of Microform Service. The microform capability of ESCAP has increased considerably through the acquisition of a reader-printer which is capable of reading both microfilm and microfiche. The print component produces hard copy which may be used on an electric stencil-cutting machine to make mimeograph stencils. The Clearing House and Information Section is now in the process of developing a microform collection of population materials. At present, for exchange purposes, it can supply at cost, plus postage, microfiche copies of its own published documents.

Translation. The need to exchange population information among countries in the region and the problems arising from language barriers is becoming more apparent as more countries begin publishing in their national languages. In its effort to overcome these barriers and to ensure the flow of population information, ESCAP convened an Expert Working Group on the Translation of Population Materials in December 1975. The Group's consensus was in support of expanded programs in the translation field. Pilot projects were recommended. The translation program as it develops will help implement network activities. In turn, it will require support at the national level in the form of translating skills and funds for production of documents.

Distribution of Publications of Current Interest. To strengthen the resource materials collections of its network members, ESCAP distributes, from time to time, publications of current interest acquired from various population institutions all over the world. It also sends out surplus copies on request. Since its first list of duplicate materials was sent out in January 1976, the Division has supplied over 400 publications to member libraries in 11 countries (United Nations Economic and Social Commission for Asia and the Pacific, 1976[a]).

CHAPTER 10

Problems in Current Population Information Services

The previous chapters have looked at existing and planned activities in the area of professional/technical information for population. Reference has been made in passing to some of the key problems that the authors of this monograph and others have identified in the field.

This chapter endeavors to review the major problems. Although many conclusions reached in this chapter are the subjective views of the authors, based on their firsthand experience in this field, some come from evaluation studies that have been carried out by various individuals and organizations during the past several years.

STUDIES EVALUATING POPULATION INFORMATION SERVICES

One of the first research projects to evaluate population information services was carried out in Southeast Asia by Bradshaw in 1973. Various results from this study have been mentioned above, especially in Chapter 4. Basically, Bradshaw found that very few respondents seem to suffer from information overload whereas larger numbers, particularly at the provincial and local levels, reported receiving almost no printed informational materials. The awareness of the availability of various information sources was also lowest among staff at the provincial and local levels. At all levels, staff members of government agencies tended to be less aware than their counterparts in private organizations. The research also revealed that users prefer publications with short articles, that are informally written and that make liberal use of color photos and diagrams.⁴⁶

The Population Center Foundation (PCF) in the Philippines has devoted considerable attention in the short time since its establishment to problems of information flow and utilization. Staff of the PCF Information Division have conducted a series of studies in this area, which appear in a compilation entitled Study of the Flow of Scientific Information in the Philippine Population Program.⁴⁷ In a study of family planning organizations, it was found that the flow of information within organizations was very limited. The mailing lists of six organizations were compared in another study. It was found that very few individuals were on the mailing lists of more than one or two of the organizations although many people occupy positions in which they should be receiving information from many, if not all, of the organizations. In a content analysis of newsletters issued by family planning organizations, most of the information was found to be non-technical information on family planning methods intended for the lay reader. In what is probably PCF's most important study in this area, a nationwide survey was conducted to measure the effect of exposure of family planning clinic staff to scientific information about three family planning methods in the form of Population Reports (which are prepared by the Population Information Program of George Washington University). Most respondents indicated they had shared the reports with about ten other people, but those who read an issue on a particular method did not score better on a recall test about that method than did those who had read a report on a completely different topic. It was also found that practitioners were usually unaware of ongoing or completed local family planning research. A more thorough analysis of some of the data from these studies has just been carried out by Generoso (Gerry) Gil, former head of the Division, as part of his doctoral dissertation at Stanford University.

The ESCAP Population Clearing House and Information Section has carried out several studies to learn more about the flow and utilization of population information in Asia. The Section surveyed the content and flow of population-related periodicals in the region. Over 200 periodicals with population content were identified and of these 68 devoted 80 percent or more of their pages to population content. Nearly 70 percent of the publications are in English, and of the copies that are sent out of the country of publication, only 35 percent go to other countries in the region with the bulk going to developed countries of Europe and North America.⁴⁸ Having identified the problem of translation into and out of national languages as

a key problem for the effective circulation and utilization of information across national boundaries in the region, ESCAP conducted a survey of translation needs. Translated materials were most frequently wanted on Japan (63 percent), the People's Republic of China (58 percent), Indonesia (45 percent), and India (44 percent). Although 95 percent of those surveyed said they could use materials in English, there was understandably a strong preference for materials in their own national languages.⁴⁹

The East-West Communication Institute has also been actively involved in the evaluation of population information activities. David Radel and Joung-Im Kim, for instance, reviewed the contents of several major bibliographic systems in population and compared them with the "national bibliographies" developed within those countries. It was found that a considerable portion of the literature in the field consists of "invisible" or "fugitive" materials, which are particularly difficult for less well-endowed institutions in developing countries to identify and obtain. No less than one-third of the population literature on specific countries is issued outside of the country about which it is written. As a result, from about 15 percent to 40 percent of the material written about specific countries is not "known" to people within the country. Conversely, from one-half to three-quarters of the items in English listed in the country bibliographies were not recorded by any of the major international bibliographic systems that were surveyed. It was found on a proportionate basis that the international systems cover the literature on some countries much more thoroughly than that on other countries. In an auxiliary study of materials on population communication and non-formal education, it was found that very few of the documents were widely available in key population collections: eighty-seven percent of the titles were available in only one or two of the 23 libraries surveyed.⁵⁰

Under the leadership of Sumiye Konoshima, EWCI has been working with population information specialists in several Asian countries in a collaborative project to assess information needs and use within these countries. Typically each collaborating institution has designed part of the questionnaire to gather information on its own information activities, largely publications in this case, and the rest of the questionnaire was based on a standardized set of questions developed by all of the collaborating institutions in Honolulu in October 1976. This latter section of the questionnaire is devoted to the information services, again largely publications, of key regional and international population information projects. Additional attention

was devoted to various services that have been provided by EWCI, including its documentation service and various publications.⁵¹

BASIC PROBLEMS IN POPULATION INFORMATION

Although the studies reviewed above have pointed out some problems in population information services and have clarified others, they do not cover all of the many problematic aspects of population information services that various observers of the field have noted during the past several years. Two key papers reviewing these problems have been written and they are the basis for much of the rest of this chapter along with the research results reported on above. The first of these is a paper that Robert Worrall prepared for the Second Asian Population Conference in 1972 entitled "Problems of Collection and Dissemination of Population Information and Knowledge in Asia." The second is David Radel's paper for the joint APLIC/PAA session in 1974, which is entitled "A Population Information System for the Seventies."

Uneven Distribution

A few professionals in the field, as indicated by the Bradshaw study, are receiving more informational materials than they can cope with. Most, however, are getting less than they want or need. In general, those who are getting inadequate amounts are those in less visible or less senior posts, who consequently fail to be placed on the mailing lists maintained by information services. Likewise, some institutions have access to extremely fine libraries while others have very inadequate collections. In sum, information overload coexists with information starvation.

Excessive Academic Orientation of Information

Most of the apparatus of the contemporary information system in population has strong links with academic approaches. Libraries, journals, and bibliographic retrieval systems are all tools with which scholars feel more at home than do program managers and practitioners. In addition, the concepts that are used to organize information, such as those used in the thesauri described in an earlier chapter, are essentially derived from a scholarly rather than a program-oriented analysis of the field. Publications, such as Studies

in Family Planning, that were initially developed largely for practitioners with "how-to-do-it" information of the kind that Bradshaw's study showed to be widely desired, frequently tend to become more scholarly as time goes on simply because those who are paid to write (and get promoted [largely] on the basis of what they write) are people in academic institutions, not program operators.

Language Problems

Not only does information need to be transformed from the "language" of, say, the researcher to the "language" of the practitioner, but also there is a great need to cater to the other languages of the world besides English and, to some extent, Spanish and French. Translation is expensive, but the value of information is completely lost if the user is unable to understand it. The vast majority of professional/technical population information materials in the world are available only in the English language whereas the vast majority of the potential users of that information do not read English or read it with difficulty.

Inadequate Transformation of Information

Much information is being passed on to users in the form received from information producers. Research reports, for instance, are generally published and then circulated by information centers in the form in which they are written, complete with all of the jargon. A busy program administrator, however, does not have the time or training necessary to use research reports in this form. As indicated at the beginning of this monograph, there are many audiences for technical/professional information and, with proper transformation by the communicator, certain technical information is of relevance to many audiences, including family planning acceptors. Yet very little effort is devoted to synthesizing, simplifying, and extracting information to make it more useful and relevant to different audiences. There seems to be a strong bias in favor of generating new information, for example, conducting new research, as opposed to getting the maximum use of what is already known (to a few people).

Costs to Users

Information is not a "free good." It costs money to generate, store, retrieve, and transmit--and somebody has to pay the bill.

Donor agency support has enabled some agencies to offer free services to all comers or to specific user groups, such as those from developing countries or those from countries with stringent currency controls. This support comes and goes, however; and during this period of high rates of inflation, many organizations are having to charge for publications and services that previously were free. The salutary aspect of this situation is that those who are asking for services for which they must pay are obviously interested in obtaining and using the information being sought. For some users, however, the fact that they must pay for the information creates a serious hardship or even an insurmountable barrier to its use. This is particularly true, of course, for professionals in developing countries and in poorly endowed institutions. There are non-financial costs involved in obtaining information, too, such as the time and effort it takes to identify and then to obtain information.

Inadequate Information about Information

Those policy-makers, program managers, and practitioners who are conscious of specific information needs frequently do not know where to turn for the required information. There are many sources of information (we identified 64 agencies prepared to provide information to requesters in Asia), but busy program staff have no time to learn what services are available from each. Until recent years, when the TIS and EWCI directories described in previous chapters became available, even information specialists in the field found it difficult to become familiar with all the relevant resources that exist. Without the assistance of a well-informed intermediary, program staff are probably going to continue having difficulties finding their way through the confusing array of agencies offering different kinds of information services, to different clienteles, under different circumstances.

Inadequate Feedback to Producers

Frequently, information specialists would be in the position to indicate better than almost anyone else what the current demand is for information and hence for research on specific problems or topics. Normally, however, they are not invited to meetings that are held to decide on research needs. Never, of course, could this feedback adequately substitute for the dialogue that, under ideal circumstances, should occur between the applied researcher and the ultimate consumer of that research.

Lack of Preparation for Information Use

Although some contemporary management courses place stress on the ways to use information in decision making, by and large, policy-makers, program administrators, and other decision-makers have never received any formal instruction or guidance in this process. Those who have been educated and trained under circumstances of information starvation assume this situation to be normal and do not aggressively pursue information. Except for a module on Using Information for Problem Solving, developed by EWCI, and research utilization training which is being carried out in the Philippines, very little is being done to provide this kind of orientation or training to users and potential users.

ORGANIZATIONAL PROBLEMS

Managers of organizations which have an information service, such as a library or publication program, tend to assign low prestige to information-related roles and activities. In organizational and project planning, the information unit often seems to represent a last minute thought. Due to this low prestige in general, librarians and others are assigned to very junior roles and are denied access to senior staff and the opportunity to participate in staff meetings. Their budgets are low and the facilities made available to them tend to be inadequate. In some cases, in fact, the role of tending to the organizations information resources is relegated to a secretary or other staff member totally untrained in this area.⁵²

SUMMARY: LACK OF COMMUNICATION ORIENTATION AND LACK OF RESOURCES

This list of problems facing the field of population information is far from being complete, but it certainly covers enough issues to indicate that there are two overarching problems besetting the field currently: a communication problem and a problem of inadequate resources stemming, partially, from the low prestige assigned to the field.

The communication problem facing information services is most evident in the lack of audience orientation. With a stronger commitment to identifying audience needs and to serving them, many

of the problems described above would begin to be solved. With a thorough knowledge of the needs of one's clients, the appropriate transformations of the information being provided to them would become more evident, and those people serving non-academic audiences would begin to shed some of the scholarly approaches that dominate the field. With an increased audience orientation, information services will begin to extend services to all relevant audiences and to distinguish their needs more carefully, to develop more effective methods for information dissemination, and to promote the availability of their services more adequately.

The problem of the lack of resources must largely be solved outside of the field, although it behooves information specialists to find ways that they can make their services more useful to program leaders so that they, in turn, will better understand and appreciate the value of such services in general. In the end analysis, the resource problem raises the most fundamental question of all: are information services useful enough to action programs that they are worth supporting at adequate levels? If the answer is yes, then they should be given the support they require to function adequately, but if the answer is no, then they should close their doors and stop wasting those resources that they currently receive. In other words, there is no point in tolerating an unnecessary activity, but if it is required, then let it have the resources commensurate with its value.

CHAPTER 11

Comprehensive Population Information Service: Some Guidelines

An examination of the current situation in information services and a review of the development process indicate a number of weaknesses in existing information support services. These weaknesses are not uncommon and can be found in programs of many sectors besides the population field. The ideal model for a comprehensive information service in support of a population program is valid for programs in other areas as well.

DETERMINING INFORMATION NEEDS

Before a unit can provide information services to a program, it must determine what the information needs of the program are. Determining these needs can be the function of a comprehensive information service unit, or it may be that this has been determined already by some other administrative or program unit and is communicated to the information service unit. Many agencies in establishing information services units have not focused on such needs. Information and materials have been collected on a rather ad hoc basis determined to a large extent by whatever is received on exchange or as a gift. Consequently, the collection ends up as a conglomeration of materials which have no relation to the information needs of the program's professional staff.

IDENTIFYING SOURCES OF THE NEEDED INFORMATION

Once the information needs have been determined, the information service unit should begin to identify all possible sources for appropriate materials. This process is continual, as new information

is generated and new sources come into existence. Emphasis should be placed on acquiring materials quickly so that the information is available to program staff at the time it is needed. It would be even better if the information service unit could anticipate information needs well in advance. Experience has shown that in too many instances information has arrived too late to be used.

AGGRESSIVE ACQUISITION OF INFORMATION AND MATERIALS

Acquiring relevant information need not wait for specific orders and requests from program staff. An information services unit which informed of the general information needs of the program ought to be able to take the initiative and proceed to acquire materials which meet recurring needs. It can monitor new information being generated and acquire relevant materials. It can coordinate with the unit responsible for management information and make certain that program data and other management information also flows into the information services system. But the ideal is far from reality, and this kind of latitude and responsibility is rarely given to staff in information service units. There are reasons why this is so, and these problems have been discussed in Chapter 10.

INTELLIGENT SELECTION OF MATERIALS FOR THE INFORMATION BASE

As many information services units will attest, a great deal of irrelevant materials and information is received by their agencies or institutions. The information units then become the dumping grounds either for materials not wanted or needed by staff in other units or for materials resulting from periodic house cleaning.

Processing and storing everything that comes in can become a costly process not only in terms of staff time and energy, but also in terms of space to house the materials. In addition, in order to retrieve appropriate material and information for program users, a greater volume of material must be sorted through. The information service unit should have personnel capabilities to screen materials for those items which are pertinent to program information needs.

SYSTEMATIC PROCESSING OF MATERIALS FOR EASY RETRIEVAL

As the volume of materials and information grows, it becomes more and more critical that materials be processed in a systematic way. One cannot rely on the memories of staff to remember everything that is in the collection. The processing should include some method, such as a code, whereby a specific piece of information can be readily retrieved when needed. There should be some kind of subject index to the content of each information piece as well, so that a user can easily tell if a document is pertinent for his or her particular need. The need may consist of topical headings and/or short annotations. Such systematic processing is essential when there are users who do not have direct access to the materials themselves.

HOUSING INFORMATION AND MATERIALS FOR EASY ACCESS

It goes without saying that the materials comprising the collection should not be neatly stored away and saved for posterity. Rather than stored, the idea of housing might better describe this function of the information services unit. Information should be organized for easy retrieval so that when it is wanted it can be located quickly. The same guidelines apply to the indexes and catalogs to these materials. They should be housed or filed in a systematic way so that they can be examined easily.

There are times when the volume of materials outgrows the space available. Alternatives to be considered then include: reducing the volume of material by "weeding out" outdated and unused material, or placing the material on microforme such as microfiche or microfilm. And if one is fortunate enough to have computer capabilities, the catalog could be placed on computer tapes or discs with an interface system to the actual materials on microfiche or film.

TRANSFORMATION OF INFORMATION

Programs are staffed by many levels and types of professional personnel. Most program people have little time to read through all

the material containing information pertinent to their activities. An important function for any comprehensive information service is the provision of information in form that can be easily used by program staff. Ideally then, an information services unit should provide translations of documents, summaries of contents, "state-of-the-art" reports, packets of different types of materials on special topics, etc. It ought to be able to use audio-visual techniques in this "transformation" process so that information can be readily absorbed and easily used by a variety of program personnel. Original documents, such as long, technical reports may get read and used by researchers, but not all of the users or potential users of information services are researchers.

ELIMINATE ROADBLOCKS TO INFORMATION AND MATERIALS

Information left on shelves behind locked doors or available only through the head of the unit or on the other side of the city is hardly conducive to easy access and use. Users ought to be able to go directly to the materials if they want to do so. If they need assistance, the information services unit ought to provide personal service. To provide service for those persons located far from the materials, one ought to use communication technology, including the telephone, the postal system, remote access to computer files, and networking through satellite broadcasting. Users must be able to obtain specific information and, consequently an information services unit must be set up so that information can be retrieved by topic, author, and title. This could be through card and book catalogs, indexes, terminals to computerized indexes and catalogs, etc.

ADVERTISE THE SERVICES

Information systematically collected, processed, and stored does no one any good if it is not used. And it may not be used because the potential users are unaware that information and services exist and are available to them. An integral part of the functions of a comprehensive information service is publicizing what it has and what it can do for users. Brochures describing the services, bibliographies of materials, and highlights on interesting or "hot" topics can be disseminated to the intended users. At training and seminar sessions, orientation to and information about services and materials

can be given to program personnel. In other words, the wares and services of the unit must be advertised.

USERS NEED PROMPTING

Users generally need to be shown how to make maximum use of the services and materials. Users coming into an information center or using the services of a center, especially for the first time, cannot be left to flounder for themselves. They will either go away frustrated or waste an inordinate amount of time when a little instruction from those providing the services would sweep away many of the problems they might be having.

Certainly a propitious time to instruct users would be when they are gathered together for seminars or for training sessions. Ideally, this kind of orientation should also be given from time-to-time to personnel involved in the information service function itself, and especially when the operations become widespread and extensive. Services may change; new information is available; new clientele are developed.

CHANGE AND DEVELOPMENT

Information needs of program staff do not remain static. Programs develop and change. Information services and materials may have been appropriate and adequate at one point in time but it does not mean that the same services and materials remain valid forever. An information services unit must monitor its services so that the changing needs of the program are continually catered to by the activities of the information services unit.

In order to know what the changing needs are and whether the services are meeting these needs, communication must be established with the users. Periodic feedback on services from users is necessary. Periodic assessment of needs is necessary. Ideally, changes in program direction ought to provide clues to changes in information needs. And program planners and administrators ought to inform and involve their information service unit in project discussions and planning. But in too many instances, these units become isolated from the planning process and are told about changes and directions almost as an afterthought.

Information collected from feedback and from surveys on needs and on the services should be examined and interpreted. The results of this analysis should be applied to make changes in services so that users are provided with what they need and want. Information and data gathered by the information services unit can be fed back to those who generate information--the researchers and other producers of information--to provide them with guidelines for future production of information based on user needs.

MANAGEMENT INFORMATION SYSTEMS AND COMPREHENSIVE INFORMATION SERVICES

By definition "comprehensive information services" includes coverage of all relevant information and kinds of services required by users of the service. Management data/information is an integral part of the relevant information required by program staff. Ideally, the information services unit and management information unit should be under a single system. Each should continually provide and receive information from the other.

THE IDEAL AND REALITY

Perhaps the authors of this monograph have presented a model for comprehensive information services which is too idealistic when faced with the realities and problems of the current information situation in population and family planning. However, if the information services components of programs can begin to move toward all of the elements of the model, and many have already begun to do so, they will have accomplished a great deal in meeting their objectives and will have contributed their share in helping to solve population problems.

NOTES

1. Jerry Kilker (May 1971) refers to four types of information: scientific information resulting from research; professional information for practitioners, administrators, and workers; community information for opinion leaders, legislators, and informed laymen; and individual information, the information necessary to change personal behavior (that is, information that would allow a couple to adopt and use a contraceptive method). Clearly, the first two of these and probably the third as well fall into what we are calling "professional/technical information" in this paper. Kilker goes on to argue that some of the problems that beset any attempt to examine this area in a coherent fashion stem from the fact that different information services and activities are functioning at these different levels. From a communication perspective, one could say simply that they have different audiences, some overlapping and others not.

2. In his 1975 article, "Exchange of Information between Nations: Help in Solving Population Problems," William O. Sweeney placed primary stress on the contributions information services can make to the international exchange of experiences among programs. Likewise Nuray Fincancioglu (1976) reports in her paper on "Users of Family Planning/Population Information" that "in almost every discussion on information needs within the IPPF, the most frequently expressed need by family planning associations is information on other associations' experiences" (p. 5).

3. UN/ESCAP, 1975(b). "Some Preliminary Results of the ESCAP Population Division Exploratory Survey on Translation of Printed Population Materials"; UNESCO, Regional Office for Education in Asia, Population Education Clearing House Service, 1974, "Report on Responses Received on Servicing Questionnaire"; and David Radel, "What Kinds of Documents Do IEC Specialists Want? A Brief Analysis of the First Year and a Half of the East-West Communication Institute's Population IEC Materials Service."

4. Lois E. Bradshaw, 1974(a). "Distribution and Utilization of Periodical Technical Population Information in Southeast Asia" and "Information Needs of Workers in Population Programmes."
5. Joung-Im Kim, 1976. "Status of National Population Information System in the Republic of Korea: National Population Clearing House at the Korean Institute for Family Planning as a National Coordinating Unit" (p. 10).
6. Barbara Yount, 1975. "The Significance of the IEC Materials Service/Supplement," Appendix C.
7. Bradshaw, 1974(b). "Information Needs of Workers in Population Programmes" (p. 26).
8. In our study of researchers, we found that they tended to be much more likely to request materials on program-related topics (for example, the use of mass media and even the development and production of IEC materials) than on research and evaluation as such (Radel and Konoshima, 1975. "What Population Researchers Want to Know about Communication and How We Are Getting It to Them: Some Experiences and Plans of the East-West Communication Institute").
9. Joung-Im Kim, 1976. "Status of National Population Information System in the Republic of Korea . . ." (pp. 10-11).
10. Gloria D. Feliciano, 1973. "The Role of a Training and Research Institute in Ensuring the Usefulness of Research Results" (p. 9).
11. David Radel, 1973. "What Kinds of Documents Do IEC Specialists Want? . . ."
12. Everett S. Lee, 1971. "The Development of Demographic Libraries and Demographic Librarians."
13. Jeanne S. Newman, 1975. "A Limited Test of User Experience with Bibliographic Retrieval Services in Population."
14. David Radel and Sumiye Konoshima, 1975. "What Population Researchers Want to Know about Communication . . ."

15. UNESCO, 1973. "Experts Meeting on Research in Family Planning Communication, Davao City, Philippines, 24-28 October 1972: Final Report" (p. 17).

16. United Nations personnel, largely in Bangkok, represent about 42 percent of all those who have requested materials from the ESCAP population reference center. (ESCAP, 1976[a]. "Analysis of Users of Reference Centre, Population Division")

17. Petra Osinski, 1971. "Population Information Needs from the Perspective of Multi-lateral Assistance Programmes."

18. For instance, Lois Bradshaw found that 8 percent of her respondents knew none of the major international newsletters, journals, and basic reference materials being widely distributed in their countries and that at the regional and local (as opposed to the national) level, 37 percent were aware of less than 10 of the nearly 70 items on the checklist (Bradshaw, 1974[b], pp. 23-24).

19. In no way, however, does this chapter represent an adequate substitute for the various detailed guides to information resources in the field such as the International Directory of Population Information and Library Resource published by the Technical Information Service of the Carolina Population Center and Sources of Information on Population/Family Planning: A Handbook for Asia published by the East-West Communication Institute.

20. Detailed descriptions of the evolving features of the Population Index appear in the following articles by the following three editors: Dorothy Good, "Population Index" (1971); Barbara Glouchevitch, "Population Index: Bibliographic Coverage for the 70s" (1974); and Richard Hankinson and Sally Strachan, "Proposed Changes to 'Population Index' " (1976).

21. In an analysis of the coverage of the population literature on Korea and the Philippines by the Population Index and two comprehensive population bibliographies on Korea and the Philippines, David Radel and Joung-Im Kim found that the Population Index had listed 18 percent of the population materials about Korea and 8 percent of those on the Philippines (Radel and Kim, 1976, p. 39).

22. For a complete list, see University of North Carolina,

Carolina Population Center, Technical Information Service, "Directory: Products & Services of the Technical Information Service" (1975[a], p. 2).

23. For details, see University of North Carolina, Carolina Population Center, Technical Information Service, "Microcatalog of the Technical Information Service Library" (1975[d]).

24. Joung-Im Kim, 1976, p. 7.

25. More information about this service may be found in University of North Carolina, Carolina Population Center, Technical Information Services, 1975(a). "Directory: Products & Services of the Technical Information Service" (1975[a], p. 4) and in University of North Carolina, Carolina Population Center, Technical Information Service, "A General Description of the Automated Library Support System Developed and Operated by the Technical Information Service, Carolina Population Center" (1975[b]). In similar fashion, a commercial publisher, G. K. Hall and Company, has recently issued in 20 bound volumes reproductions of the nearly 325,000 catalog cards for the U. S. Census Bureau library.

26. Bibliographic searches using POPINFORM have been demonstrated, using regular telephone connection with the U. S. East Coast, in Manila, Stockholm, San Jose (Costa Rica), and Honolulu.

27. Overall descriptions of POPINFORM are found in the following articles: Helen Kolbe, "POPINFORM--A New Population Information System" (1974[b]); and Phyllis Plotrow, "POPINFORM: A New Family Planning and Population Information System" (1975). One of the major data bases included in the network is described in Kathryn H. Speert, "The Contributed Data Base: The International Institute for the Study of Human Reproduction, Columbia University" (1975).

28. Details are based on a form letter sent by Helen Kolbe, Director of the Population Information Program, and Richard Hankinson, Editor of the Population Index, on 5 November 1976 to members of the Population Association of America and other interested organizations.

29. Titles of documents will be entered into the system in both Spanish and English.

30. DOCPAL has been described by Arthur M. Conning in "An Outline of the Latin American Documentation System (DOCPAL)" (1976[a]) and "A Report on the Implementation of DOCPAL during the First Six Months of Operation" (1976[b]).

31. The full report of the Technical Task Force and the comments and recommendations regarding that report prepared by the Interim Steering Committee appear in Towards a World-Wide Information System of the Field of Population: Study Prepared for the POPINS Interim Steering Committee by the Technical Task Force and Report of the Interim Steering Committee to the United Nations Department of Economic and Social Affairs (1976). Summaries of the feasibility report appear in two statements prepared by David Radel: "World Population Information System Plans Move Ahead" (1976[b]) and "Towards Implementation of POPINS: The Proposed Worldwide Population Information System" (1976[a]).

32. Catherine Fogle, Karin Gleiter, and Marilyn McIntyre, International Directory of Population Information and Library Resources (1972); Karin Gleiter and Catherine Fogle, International Directory of Population Information and Library Resources: Supplement to the First Edition (1972); and Karin Gleiter, International Directory of Population Information and Library Resources, Part Two: 1975 Address List (1975).

33. Richard Hankinson, "An Introduction to Information Resources in the Population Field" (1973) and N. P. Cummins, "Some Visual Aids and Library Resources for Population Education in Asia" (1975).

34. Sumiye Konoshima, David Radel, and Elizabeth Bentzel Buck, Sources of Information on Population/Family Planning: A Handbook for Asia (1975).

35. Two examples are Elizabeth Bentzel Buck with David Radel, Directory of IEC Assistance and Services (1976) and United Nations Fund for Population Activities, Population Programmes and Projects, Vol. 1, Guide to Sources of Population Assistance (1976[a]).

36. David Radel and Sumiye Konoshima, Communication and Non-Formal Education in Population/Family Planning: An Index of Materials, together with Information on Obtaining these Materials (1976).

37. University of North Carolina, Carolina Population Center, Technical Information Service, Description of Population Library Internships Program.

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42. Reports of these missions are found in the following: Jacques du Guerny, Malini Balasingam, and Sa-ang Israngkura, "Report on a Mission to Pakistan including a Three-phase Draft Proposal for Setting up a National Clearing-house and Documentation

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43. For the details of others, see Association for Population/Family Planning Libraries and Information Centers--International, "APLIC International Directory of On-site Orientation to Population/Family Planning Resources" (1975).

44. More details about APLIC may be found in the following: Blanche Horowitz, "APLIC: Innovator of a Population Information Resource" (1975); Association for Population/Family Planning Libraries and Information Centers--International, "Statement of Purpose" (1976) and Kathryn H. Speert, "Population Information Surveyed by APLIC" (1976).

45. More details may be found in Rene Jaimes, "AICIP's Take-off" (1977).

46. These findings come out of Bradshaw's Dr. P. H. dissertation on "Distribution and Utilization of Periodical Technical Population Information in Southeast Asia," Chapter VIII.

47. Cecilia C. Verzosa et al. authors.

48. United Nations Economic Commission for Asia and the Far East (ECAFE), "Periodicals in the ECAFE Region with Special Interest in Population Information" (1974[c]).

49. More detailed results may be found in the article entitled "Special Report: Translation Meeting" (1976) and in United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), "Some Preliminary Results of the ESCAP Population Division Exploratory Survey on Translation of Printed Population Materials" (1975[c]).

50. David Radel and Joung-Im Kim, "Identifying and Obtaining Population Literature on Developing Countries" (1976).

51. Statements of the proposed designs for the collaborative research projects appear in Indonesia National Family Planning Coordinating Board, "Project Proposal on Population and Family

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52. A good discussion of the whole problem of the lack of commitment and resources--in this case specifically concerned with the population library--appears in Bates Buckner, "Problems, Realities and Needs" (1975[b]).

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