THE DISSEMINATION OF APPLIED HEALTH SERVICES RESEARCH

by

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ABSTRACT

Applied health services research attempts to study methods for more effective planning and management of health services. In a World Bank report on health status in developing countries, the problems of planning and managing health services were cited as the main constraints to the effective delivery of these services. It therefore follows, that the use of health services research in Africa has considerable potential for improving the delivery of health services on that continent. Two of the primary factors inhibiting the use of health services research is the inadequate dissemination and the many insitiutional factors which inhibit utilization of that research.

This thesis seeks to present an evaluative study on what efforts are currently being made to disseminate health services research and what factors affect utilization of that research. From this information guidelines were designed which suggest ways to facilitate these functions.

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INTRODUCTION

It is an undisputed fact that the health conditions and life expectancy of persons in developing countries are significantly lower than those in developed countries. While it was once thought that financial resources and technology were the cause of this sad discrepency, it is now felt that, "...the most persistent problems in improving health do not result from the complexity of medical technology, and only partially from the scarcity of financial resources; rather they, derive principally from problems in the design and implementation of policy, management and logistics(in the delivery of health services)." (World Bank, p.7)

Relatively little is know about the best way to plan and manage health services and what is known was learned more from trial and error experiences than careful study. The field of health services research has developed in response to the low level of information which was available on the delivery of health services. Another reason often cited for the establishment of health services research as a separate discipline and the subsequent increase in the amount of research conducted in this field is the rapidly increasing complexity which characterizes health care systems in both developing and developed countries (Grundy and Reinke, p.11). The application of more scientific approaches to both management and planning problems since the end of the second World War is considered to be the precedent for the rapid development of health services research. The increasing

awareness in both developed and developing countries of resource shortages and the arrival of the "age of austerity" have solidified the importance of health services research as a method for determining the most efficient and acceptable uses of limited health care resources.

Health services research is applied research because its explicit purpose is to produce results which can be used to improve the delivery of health services. The research component of health care programs was once looked upon as enlightening to those who engaged in it and it was not considered important that the value of the research be determined. Gerard Mangone expressed this sentiment when he said, "Research, of course, penetrates virtually all international health programs, and can only be judged as a priority within a major health objective. It encompasses conferences, institutes and fellowships, which are often fagmentary and highly individualistic activities whose value...must be more a matter of faith than empirical demonstration. (Mangone, p.77) A review of the literature on health services research indicates that, this type of thinking is becoming less prevelant as the role research can play in improving its delivery becomes well recognized. If it is assumed that the benefits of research need not be demonstrated it is unlikely that a concerted and deliberate attempt to disseminate and utilize research will be made. However, without well planned steps research results will enlighten those who discovered them and the few who happen to

be exposed to them. A clear cut course of action, not simply faith is needed to achieve successful utilization. Health services research will only facilitate the delivery of health care services if the research is both disseminated and utilized. While there is increasing awareness that a significant amount of health services research is not disseminated to potential users and not utilized if received. If either dissemination or utilization does not occur health services research does not serve its intended use.

The purpose of this study is to define what factors affect the utilization and dissemination of health services research, discuss what is currently being done by a number of North American orgainzations in an effort to promote the use of this research in Africa and determine what is the range of possible methods for dissemination. Based on this information, guidelines will be developed which seek to facilitate the use of health services research. A plan for further study of utilization and dissemination will be presented based on what has been learned from these organizations and information found in the literature. This study will not focus on how to do health services research or what subjects should be investigated by such research, except where it pertains to the utilization of the research.

I have chosen to address this problem because doing health services research and improving the quality of that research are not productive ventures if the results are not adequately disseminated. This is not an insignificant

problem. There is a considerable financial investment in health services research, and heightened expectations about the possible uses of that reserch, which will be thwarted if results are not utilized.

I have also chosen to study health services research utilization and dissemination in an effort to develop guidelines for researchers being trained by Boston University's program for Strenthening Health Delivery Systems. The guidelines suggest a course of action to be taken by researchers in an effort to facilitate the use of their results. The suggestions are based on what is known to be effective in practice and what is suggested in the literature.

Prior to any discussion on either utilization or dissemination an adequate definition of health services research, sometimes known as health practices research, must be given. One definition of health services research is presented by Grundy and Renke of the World Health Organization, claim that, "Health practices research can be thus be broadly defined as the formalized investigation of some aspects of the organization and administration (including the management evaluation) of health services in relation to objectives and socio-economic circumstances. Its main purpose is usually to achieve the optimal use of a system for the delivery of health care and other health services, to show where and how improvements might be made, and to help in the development of health planning and

research methods. It is usually concerned with providing solutions to a particular problem, and is characterized particularly by:

(1) a systems orientation;

(2) a multidisciplinary approach;

(3) the use of the scientific approach conceived in terms of models ,objectives and feedback; and

(4) the objectivization of the decision-making process." (Grundy and Reinke, p.20)

These four approaches to doing health services research are usually employed in an effort to suggest policies on issues concerning: 1)training, educating and utilizing health manpower 2)organizing and utilizing health services, 3) overcoming major public health problems 4)insuring the provision of quality care 5)determining and adjusting cost-benefit and cost-effectiveness ratios of various programs 6) securing baseline health care statistics, or 7)determining a community's need/demand for health care services and the factors affecting their acceptance of such services. Information in the above areas is used in the planning, managing, and evaluating of specific health care programs, as well as the formation of local, regional, national or international policies relating to health care.

While every project and organization has its own use for research there are a number of broad categories which characterize most of the ways health services research can be used. Nancy Williamson, of the University of North Carolina,

outlined a number of the functions health services research serves and many of those, and others she did not mention, are listed below. (Williamson, Studies in Family Planning) It must be made clear that all of these uses of research are theoretical. By this it is meant that health services research often does not fulfill all of these functions. These concepts remain theoretical in most cases because health services research is inappropriately designed, utilized or disseminated thus cannot fulfill its intended purpose. The uses of health services research to be discussed include: identifying or clarifying the problem, anticipating appropriate and inappropriate interventions, and providing information to the funding agency and policymakers.

Identifying or Clarifying the Problem

This function is served when researchers can provide program managers with non-intuitive evidence which brings to light the true source of a problem or more detail about that source. In many cases the source of the problem may have been determined but in such a vague way that clarification becomes essential. For example, if a health care facility perceives that its services are underutilized it is important to know why this is the case. The difference in strategy taken if the problem stems from locale, fees or the quality of the service is considerable. Even if it is determined that the cost of services is the source of the problem it is important to know whether it is the cost that the facility charges or what the individual will lose in missing work.

The health care facility can probably make arrangements to deal with the former problem, the latter would be a more difficult concern. It would be equally important if a researcher could give a manager results that indicate that either a problem once thought to exist no longer does or that it is less severe than was once thought.

Providing Feedback on Field Problems

In reference to the Bohol Maternal and Child Health-Family Planning Project in the Philippines, Nancy Williamson describes a situation where research staff provided encouragement and supervision for the field staff. Although it was not part of the task assigned to them, research staff questioned, aided, instructed and observed the job done by nurse midwife field staff. Williamson felt that this supervision, which without the research staff would not have been available, improved the job done by the field staff. Communication between field and central office staff was also improved by this link.

Anticipating Appropriate and Inappropriate Interventions

Although this function is much more difficult to perform, health services research can attempt to discern the effect of various policy interventions. Scenarios of possible actions and their effects can be designed by researchers and managers, and the researcher can attempt to discern whether the data supports such conclusions.

Before building a large maternity ward on a hospital or clinic, it is essential to know whether women in the local

area will accept and use such services. The services could be utilized because they are perceived as desirable, modern and a better way to insure the women's health and their baby's safe delivery. Conversely, service could go unused because they are viewed as part of another culture, expensive, providing no benefit, counter to traditional practices or a place to go only when delivery proceeds very badly. Without the knowledge of which of these perceptions exist such a facility could result in wasted funds or insufficient provision of services.

Providing Information to the Funding Agency or Policymakers

The future of many programs depends on the staff's ability to demonstrate the successes of their efforts. This information may be in the form of a regularly scheduled progress report or an unexpected question from skeptical personnel within the funding agency. A programs credibility, and thus its success within a country, may also hinge on its ability to justify its existence to local or national governmnet officials. If researchers can not perform this function the contribution of a program may go unnoticed and therefore be prematurely and unnecessarily discontinued.

Funding agencies and policymakers also need evaluative research in order to assess the benefits of repeating a similar project in another location. Finally, even a project which is agreed to be a failure, has a value in the lessons which can be learned. Some study of the causes of failure, not to the point of "throwing good money after bad", should

be made to help avoid repeating the same mistakes.

Such research may inspire the policymaker to increase the staff or funds devoted to the project, replicate the project some place else or in the cases where no success can be shown, discontinue the project altogether.

Williamson also suggests that well known projects can expect to receive quite a number of "expert" visitors who will expect answers to their probing questions. Only through research will a number of these questions adequately be answered

These are some of the most common uses of health services research. It is important to recognize that at varying times in a project's life one or more of these functions will be served and that not all programs will need each of these types of information.

For the purposes of this essay it is assumed that many of the problems faced in implementing innovations resulting from research in closely related fields such as the delivery of family planning services will be useful in giving guidelines for the application of research to the delivery of health services. Futhermore, it is assumed that the lessons learned about improving service delivery through the utilization of research in Latin and Central America and Southeast Asia can and should be applied to what will happen in Africa. A great deal more work has been done in the aforementioned speciality and areas of the world and African health care specialists can greatly benefit by not

reinventing the proverbial wheel.

A question which often arises is, why it is so crucial to do such research in developing countries when similar research is being done at more sophisticated levels in the United States and Europe. The health care problems and settings which exist in developing countries are vastly different than those in developed nations. A health care model that includes centralized sources of sophisticated care aimed at an urban literate population is wholly inappropriate in Africa. The rural setting, derth of highly trained medical personnel and lack or resources available to devote to health care all mandate a health care system completely different than that which exists in the developed nations. Health services research must be different precisely because the health care system must also be different.

The following pages will attempt to present a number of conclusions on what needs to be done to put health services research into practice. Chapter two includes a short summary of what information is available on the subject of utilizaton and dissemination of health services research. Chapter three presents the methodology used in doing this study. Chapter four discusses the major assumptions made and problems encountered in utilizing the results of health services research. This chapter will focus both on the problems in using such research and the factors affecting its utilization. The fifth chapter focuses on the issues involved in disseminating health service research and what

has been done in by both national and international agencies and organizations. Chpater six will describe issues to be examined in future study of utilization and dissemination. Finally, chapter seven presents a compilation of practical suggestions to both researchers and policymakers and guidelines which can be used to aid the process of tansfering health services research from the researcher to the user in Africa.

No study is without constraints and this one is not an exception. Doing research on research has often been likened to chasing one's own shadow. While the author is, obviously, of the opinion that such research is not futile and that the chase is worthwhile, busy health workers in African countries have rarely been afforded the luxury of such retrospection. Therefore, few programs are seriously or throughly evaluated or researched and even fewer studies are followed to see if any suggestions were implemented. This results in a minimal amount of material being published on the subject of utilizing health services research and the authors of such material being almost exclusively from the developed countries. The field is new and time will undoubtedly give it a more substanative literature. Another serious constraint on this study was the author's inability, for a number of reasons, to travel to Africa. While a great deal of information was collected first hand, any cases which describe actually receivng or utilizing research results, were gathered through interviews and from secondary sources.

CHAPTER TWO

"Review of the Literature"

The literature on the dissemination and utilization of health services research falls primarily into four categories. These four categories include, case studies, theoretical academic work, final reports on specific projects, and the proceedings of conferences which focus on health services research.

The case study method for evaluating research dissemination has been employed primarily by the Organization for Economic Cooperation and Development. In a three part series they have attempted to document what is actually being done to communicate social, economic and population research undertaken in the developed countries to managers and policymakers in developing countries. Their first study examined the success of population conferences and attempted to suggest courses of action which might make this method of research dissemination more effective particularly in Africa. This study surveyed conference participants and organizers and sought to determine what factors led to successful and unsuccessful conferences. They then made recommendations, based on their survey and additional interviews, which are aimed at enhancing a conference's effectiveness. This research was very useful because it determined from the participants themselves, how much information they received at the conferences and whether that information was useful in their role as a policymaker.(Weekes-Vagliani and Hankinson)

The second stage of the study was a book written by Robert Batscha entitled, The Effectiveness of Dissemination Methods for Social and Economic Development Research. This study discussed some of the problems involved in disseminating research in developing countries and focuses on what is currently being done by thirteen bilateral and multilateral aid/research orgainzations. Unfortunately, Batscha focuses only on what organizations claim that they do in this process rather than what is actually being done or the effectiveness of that action. Batscha's study concludes by listing what questions are still unanswered. He outlines the third part of the Organization for Economic Cooperation and Development's study which will attempt to discern the effectiveness and effacacy of these orgaization's dissemination efforts. It is proposed that this third stage of research will study the flow of information within policy units to determine how and where research is used, the methods used in screening research both by the sender and recipient and what factors led to the success or failure in getting research used in policymaking. Batscha, however, does not explain what questions will be asked or how this information will be obtained. The results of this third stage of research have not been made public.

Theoretical academic work focusing on research utilizaton and dissemination is much more plentiful than case studies. Sage Publications, a publishing house in Los Angeles, has printed a great deal of research on how

evaluation studies are done and how they can best be utilized. Some of this research, particularly the work done by Fracis Hoole, has examined the problems of doing evaluation research in developing countries. Hoole concludes that the problems encountered in both developed and developing countries are (quality of research, timing, formulating the problem with user input) similar and that they are only more severe in the latter group of countries.

The work done by Thompson (Applied Helath Service Research) and Roemer (Evaluation of Community Health Centers), attempt to describe what health services research is, what it can do and give examples of how it has been done. In the case of Thompson he describes the "development, taxonomy and basic concepts of health services research" through the history of the discipline's development before going on to explain how such research can be related to the economics of hospital care, nursing staffing, government intervention in health care. Roemer's research focuses on how the performance and operation of community health centers in less developed countries should be assessed and how such an evaluation can be used by the center's management.

There is a separate body of academic literature which focuses on translating social science into a form usable for policymaking. This body of research does not focus specifically on either health care or developing countries, but attempts to grapple with some of the issues involved in transfering information from researcher to user. Albert

Cherns, in his book Using the Social Sciences, compares the way social sciences are used in a number of developed and developing countries and attempts to deliniate the common problems and successes of research utilization. He goes on to suggest that the social sciences can make a considerable contribution to development if the following steps are taken:

-The social sciences are encouraged and supported

-The processes of diffusion and utilization are studied on a considerable scale and on a fully comparative basis

-There is documentation of research which is available to avoid duplication and facilitate access

-Sufficient manpower is devoted to research

-The development of national policy related to social science

The problem with Cherns' work is the fact that he articulates what needs to be done without giving any indication as to how it could or should be accomplished.

A final source of information on health services research is the proceedings of conferences devoted to the study of this topic (e.g.Ford Foundation, White House). While no proceedings have been published on conferences which addressed just this topic, there has been information published on conferences with closely related subject matter. The Population Council in collaboration with the Ford and Rockefeller Foundations held a series of conferences on the trials and tribulations of getting social science used in the improvement of family planning service delivery. Additionally a conference was held at the White House in 1976

which examined the problems and contribution of American efforts to improve health status in the developing countries and the dissemination of this research went unmentioned. One of the issues briefly discussed at this conference is the role of research in this effort. Research efforts were assumed to be largely unsuccessful and not considered worth a substantial amount of discussion. However, the same conference reported that of the $528,000,000(1976) spent by the United States on international health care $97,881,00(1976) is spent on research. It seems that the funds have been expended while the use of those funds goes unexamined.(White House, p.145)

The benefit of published conference proceedings is that it gives the reader some idea of the intellectual discourse which occured among a number of persons concerned with the role of research in health care service delivery.

CHAPTER THREE

"Research Methodology"

This research seeks to present an evaluative study on what efforts are currently being made to disseminate health services research in Africa and what factors affect utilization of that research. From this information guidelines were designed which suggest ways to facilitate these functions.

This was achieved by surveying the literature on population and health services delivery and conducting a set of interviews with persons responsible for disseminating research. I thought that by interviewing persons who had experience with research dissemination, the techniques they used which were most successful and the measures they used to determine that success could be incorporated into guidelines for African researchers

The literature survey revealed a considerable amount of information on the use of research in the delivery of family planning services in developing countries and health care services in the United States. In cases where the author seemed to have done considerable work in this field, and was currently in the United States, calls were made to obtain further information and the final reports where specific projects were described.

A vital source of information for this study was a series of interviews with persons responsible for the dissemination of health services or other research in

organizations involved with health care in developing countries. Interviews were conducted in the following organizations:

The Population Council

CARE

World Education

Columbia University's Center for Population and Family Health

Technical Assistance Information Clearinghouse(TAICH)

World Bank

American Public Health Association

United States Agency for International Development

Manoff International

National Council of International Health

Westinghouse Health Systems

International Development Research Centre

The organizations in this sample were chosen because they disseminated research in Africa, had at least one person whose primary responsibility was dissemination and this person was in a position to discuss the issues which arose. Letters were mailed out to many organizations who were involved in research dissemination explaining what questions I would ask and requesting an appointment.

These interviews revealed that although all of the organizations were responsible for disseminating some research there was an array of interests in the effectiveness of this activity which fall into three groups including those who, are not seriously concerned with issues of effectiveness

of dissemination, see themselves as too busy disseminating information to assess the effectiveness of their efforts or are concerned about these issues and are experimenting with ways to make their efforts more effective.

For example, when CARE publishes results of research or the proceedings of a conference they sponsored they send the publications to CARE employees and make it available to others on request, through a clearinghouse. Although the purpose of this organization is not primarily research, they have not made any efforts, or expressed concern that the information which they do publish is disseminated.

Interviews with Jane Meskill, the editor of the Technical Assistance Information Clearinghouse newsletter, revealed that the newsletter staff is concerned about the haphazardness of their dissemination efforts. They send the newsletter to everyone who requests it and have made no organized attempt to reach new groups or individuals. The mailing list was described by the editor as a "mixed bag" and it was clear that the repeated difficulties encountered in computerizing the mailing list, and the shortage of funds and staff time has inhibited attempts to improve dissemination.

However, many organizations have made concerted and creative efforts to improve the dissemination of research. Manoff International has disseminated nutritional and medical research results by radio which included information on the feeding of children and oral rehydration. The material was pre-tested to insure accurate interpretation of the

information and before and after surveys were conducted to determine if the messages were heard and what effects the message has on the listener.

It was clear from these interviews that while some organizations are trying to grapple with the issues, very little is known about the process of research dissemination in general, or health services research specifically. There has been no attempt to systematically explore the problem.

I asked the interviewees not only what they did to disseminate research, how they did it and the problems which arose, but also what were their impressions of how this function could be better performed. The questions asked of over twenty people in twelve different orgainzations (see Appendix 1) included:

-what are the success factors involved in research utilization and how do you measure the success of your efforts?

-how do you disseminate research, to whom and how was this decided?

-how do you measure your cost, your effectiveness and what is the relationship between these two?

-what changes could be made to increase utilization and improve dissemination.?

It was expected that these interviews would reveal success stories of utilization and dissemination as well as the criteria used to measure the success of these efforts. From this the factors critical to the success of health

services research could be distilled and put into the form of guidelines.

It was also assumed that when research is undertaken or a publication produced there was a well defined audience who was supposed to benefit from the information. The research presentation and the vehicle used for dissemination would then be tailored to the information needs of this audience. Determining both the channel and form for distribution assumes a prior knowledge of how and where information travels and in what form it must exist to be utilized. I also assumed that some analysis of the costs and benefits of different dissemination methods had been made and that the final decision had been based on the relative advantages of one technique.

There is little disagreement that ideally health care policy could be better formulated in light of health services research. What is under controversy is whether such research can be adequately conducted disseminated and utilized to have its intended effect on policy. Bernard Berelson, former President of the Population Council, feels that,"...we can be reasonably sure that within the visible future, social science knowlege on population and development will never-well hardly ever-be fully sufficient to the tasks put to it. This is the nature of the beast: given the demand for actionable answers in a field of great complexity and recalcitrance, research answers will always be incomplete and almost always contradictory. Yet progress is possible:

answers can be based on more solid foundations and disagreements about interpreting facts can be narrowed."(Berelson, p.258) Given the pervasiveness of this thinking there is every indication that research will continue to be important part of health care programs. Thus, it is my conclusion that a better understanding of how this information can best be transfered from researcher to user is essential.

CHAPTER FOUR

"Assumptions Made and Problems Encountered in Research Utilization"

Before proceeding with a discussion of what factors affect the utilization of applied health services research, it is essential to examine the underlying assumptions made when conducting health services research. The very term "applied research" implies that research can somehow be translated into policy and that to be effective this translation must occur. This idea seems to be accepted as fact by most persons working throughout health care systems. Bernard Berelson is very graphic on this point when he says that research will have to be translated to be effective and, "...the field will have to face up to what is simultaneiously the scholar's crutch and the policymaker's bane: 'the results are inconclusive', 'the evidence is generally incomplete', 'the conclusions must be considered highly tentative'". (Berelson, p.252) He emphasizes that policymaking will only be effective when researchers can go beyond these phrases and discuss the policy implications of even their limited findings.

In discussions with Dr. Bernard Leise of the World Bank he expressed his feeling that the people in "the field" are three to five years behind what research is now being published. He insisted the "middle level managers" want findings which have been generated through past research and there is an enormous demand for the results of research which

is now being conducted. He blamed the lack of implementation of health services research results on the poor dissemination by researchers and international agencies as well as bottlenecks in government bureaucracies, both American and foreign. The assumption made is that if research were made available and adequately translated into policy, things would be different. The general belief is that policy based on research is better or somehow more effective than policy based on no research or evaluation findings.

There is however, a range of opinions as to what benefit have already accrued from health services research. In a report to the President of the United States the Commision on International Health Care claims that, "Ambitious proposals for health services delivery system research are common; serious, informative presentations of useful results are rare." (White House Report, p.154) In response to constant complaints for more research Paul Demeny, of the Population Council, answered that, "The best way to remedy such a situation is to insist that pending the production of better research results, utilizing the existing knowledge is better than groping in the dark or following ones best instincts."(Ford, p.59). The very existance of the thousands of Universities and reseach institutes and the millions of dollars spent on such endeavors indicates the firm belief that policy will somehow be better for having been researched and evaluated.

If the purposes of policies relating to health care are

to improve health status, then it follows that the purposes of health services research is also to improve health status. It is this link which is so difficult to measure when one wants to assess the effects of utilizing health services research. To enlighten policymakers or the public in general is not the ultimate goal of health services research, only changes in health care status or the delivery of services truely indicates the effectiveness of the research.

A further assumption made when employing health services research is that some methods for doing research are more effective than others. This assumption is made by those who write books on how best to do research or teach courses on research design and implementation. This assumption is made explicitly throughout the text of this report. There has been a great deal of evidence, which will be cited in the following pages, which indicates what factors are likely to assist or inhibit research utilization. Unfortunately, the success factors are considerably fewer in number. Finally, it is assumed, both by Dr. Leise and throughout this report, that research must be adequately disseminated to be effective. Research results and policy suggestions which are copied and placed on the desks of appropriate government officials will have less of a chance of being implemented than results which are disseminated in a more deliberate and thorough fashion.

The first and ultimately the most important factor affecting research utilization is who defines both the topic

and perspective of the research. The definition of the research problem will ultimately determine what type of action is suggested and who would benefit from that action. There are clear and convincing arguments why the researcher, the information user, the consultant, the international funding agency the local government and the population under investigation should all have a part in determining the research question to be asked and the policy suggestions to be made. However, different research projects and vastly different results are likely to arise when a different group is given responsibility for the research agenda.

The benefits of having the researcher design the research process lay in his subject expertise and knowledge of what is feasible. It is usually the case that a researcher is engaged in investigation because he has some particular knowledge of the topic or subject area. As such the researcher is an obvious person to determine how the research should proceed, being capable of understanding both the complexity and detail of the subject. The researcher is also likely to have some understanding, from either prior research or preliminay study, of what the project will or will not be able to achieve. Finally, to do the research the researcher must have some interest in the topic or another incentive (e.g.pay or promise of further research which may be of interest).

The different incentives researchers have for doing their work and the differences concerning whom they are

accountable to, may substantially affect how the research is used. A researcher who is primarily concerned with either getting research published or obtaining the recognition of international peers will not make considerable efforts to see that his research is utilized. Robert Batscha, of the Organization for Economic Cooperation and Development, feels that,"The researcher, for example, finds professional value in placing his research results in academic journals and the more prestigous commercial publishing houses. On the other hand, the policy-maker finds that he has little available time to pursue these academic journals and a 500-page report that may actually reach his desk will probably remain unread by him because of other, perceptually more pressing demands on his time."(Batscha, p.182) While neither of these concerns is insignificant in a researcher's career they can be counter productive to the need of a population under investigation. Similarly, attempting to placate the funding agency, rather than being concerned with the needs of health care programs can be deleterious to research utilization. For example, if a researcher finds that either the land tenure system, the distribution of wealth or the emphasis on technological medicine are the most severe obstacles to adequate health care services, these results will be difficult to report. These are conditions over which an international funding/lending agency has little or no control and any suggestion that these issues be addressed will probably serve no use.

It is clear from numerous studies that the users of research must also have some input into the path that research will take and the product it will generate. While it is not clear whether research which meets the needs and expectations of the user will be utilized, it is clear that if the results do not meet with the users satisfaction they will be of no use. This does not mean that findings should mock what the researcher thinks the user wants to hear, but that they should attempt to indicate the implications of the suggested course of action and should answer the user's need for accurate information. It is often the case that the information user has the best understanding of the problem under investigation. This situation might arise when a program director calls in a researcher to examine some aspect of his program. He may know the situation best and thus be able to formulate the problem the researcher must examine.

International consultants, usually from developed countries, have played a significant role in doing applied research in Africa. Consultants are called in to examine health care settings because they are viewed as having both experience and expertise. An argument is made that they are able to bring in an outsiders perspective or experience from another region of the world to a problem and therefore outline possibilities which may not have occured to those living in the region. Further arguments suggest that they may facilitate dissemination by forging a communications link between the agency they work for, consult for and the context

in which their research is conducted. (Batscha, p.26)

There are however, severe drawbacks to allowing temporary consultants to define both the problem and policy options. Consultants are likely to be in the setting for a short time. They may not become aware of the full ramifications of the problem or the subtlties of the politics involved. Being in the situation on a temporary basis they will not have to "live with" the results of their suggestion and may therefore not have to take them as seriously. Since both their compensation and chances for advancement lie in their home country there can arise some doubts about whose interests they are intending to serve. In a slightly cutting generalization, Doob characterized Americans consulting in the field of communication when he said the following, "Americans in particular favor that direct approach and so, when they would found or improve an organization to communicate with Africans, they usually send a team of "experts" on the grand tour. The investigators accompanied always by camera and sometimes also by tape recorders and even wives, arrive in Africa frequently knowing nothing more about the countries than their approximate location on the map. They confer with the relevant African and European officials, and thus disturb the smooth functioning of government, education, and industry. Eventually, they issue a report which, however potentially useful, unfortunately is likely to be out-of-date before it is duplicated and circulated privately in a conspicuous manner....All too

frequently, American delegations have been known to disregard existing information in order to be sent to Africa on an expense account and thus have, in the glorous phrase that only a country as recklessly wealthy as the United States could afford to coin and then by deed illustrate, their own 'look-see'".(Doob,p.31) No sweeping gerneralization could accurately portray an entire profession, the above mentioned criticisms are simply cautions of possible problems with American (or any Western nationals) doing research in Africa.

International agencies, both bilateral and multilateral, often provide the funding for health services research and therefore, can exercise the "power of the purse". In defining research projects an agency may have a global concept of what problems must be examined and be unable or simply unwilling to modify this on a country to country basis. This macro perspective can be a two sided coin and afford the agency both a broad perspective no individual country could have and an inability to adapt to that country's needs. Health care divisions in one large agency can make known the results of health services research in one part of the world to the rest of the world. While there is sill considerable debate as to whether findings in one part are applicable to another part, assuming for a moment that they are, an agency involved in research in many countries would be the only organization able to facilitate this type of cross-cultural learning. By doing this an agency could, theoretically avoid unnecessarily duplicating research

efforts in two parts of the world. This is only theoretical because the vast complexity and lack of order in most international agencies makes this difficult. The interest of the international agency in what type of research is undertaken, cannot be overlooked as resources become scarcer.

Alternatively, research plans can, and often are designed by the government of the country within which the research will take place. The Ministry of Health will probably have an informed opinion of what the health problems are throughout the country and without the support of this office it is unlikely that effective research will take place. The need for personnel, facilities and approval for many research acivities requires that the researchers gain both the approval and preferably the support of the government agency involved in health care. This support will also be essential in implementing any changes suggested by research because in most countries the government plays a considerable role in financing, regulating and providing health care services.

The final "actor" to consider in the research process is the subject of the research. This could be defined as the population, program or process being investigated. In each case the persons involved have substantial and very relevant information which is of interest to the researcher. For example, a study being done for the Ministry of Health on the effectiveness of maternal and child health care clinics would necessarily want to ask persons within the Ministry and

persons employed by the clinic what they perceive as the programs main strengths and weaknesses. However, it is the population who uses the clinics' program who will have invaluable insights into its effectiveness. Thomas Cooke, of Manoff International, suggests that researchers let the population under investigation set the agenda for research. When doing a pre-study for a nutrition education program in Indonesia, Manoff International asked mothers what they already knew about nutrition and how they currently feed their families. Cooke mentioned misconceptions that the interviewer/researcher had and on which they would have otherwise based their program. In these cases it is the community under investigation who may know what they need, reflect an accurate picture of what is currently underway and will best able to keep research from becoming irrelevant.

Another factor effecting the utilization of research, which is of vital importance, is the qualifications of the researcher to do the research. Although, it is impossible to generalize as to what "qualified" entails for different research settings, it is clear that certain characteristics of a researcher are important for health services research.

It is essential that any researcher be familiar with the setting in which the research is being conducted. For work in Africa the researcher should be familiar, and comfortable with the language, customs, religion and lifestyle of the people where the study is taking place. For indigenous researchers this may mean learning or refamiliarizing one's

self with the rural lifestyle which pervades most of the country. A trained African researcher, working in an area with a dialect other than his own, may need to learn an entirely new language in order to effectively conduct research. The expatriate researcher is faced with possibly greater problems which include unfamiliarity with culture, language and setting. Therefore, significant prior experience working in Africa is an important factor for the project's success.

The need for a non-academic, interdisciplinary approach to applied research is echoed by almost everyone writing and discussing ways to get research utilized. Albert Cherns characterizes the situation of doing applied research by commenting that, "In many developing countries the academic is regarded as an ivory tower intellectual with little concern for, and less understanding of, the pratical, the politically possible. The contempt is reciporcated by the academic, who views the administrator as a blunderer who, in his absolute conviction of his own superior knowledge, will not listen to wisdom-at least of the native brand-though he may to a visiting expatriate".(Cherns, p.383)

An agency wants to receive suggestions for actions which are within its power or control. Recommendations for more medical supplies, more or better training of health personnel or educational programs are more likely to be implemented than recommendations for organizational reform. This creates a certain set of incentives for a researcher who wants both

to make suggestions which have some prospect of being implemented and will allow him to obtain further research contracts. This is basically an issue concerning the researcher's acountability. Whether his allegiance lies with the funding agency, the personnel of the program underway, the persons served by the program or his own interests, is an issue of considerable significance.

An extremely important factor affecting the utilization of health services research results is whether the information provided by the researcher is both what the research audience wants and can use. This can be inhibited by communication breakdown which can occur because:
1)the user needs new or different information,
2)there is poor communication between researcher and user,
3)the researcher is investigating an area of personal interest which is not of importance to the user
4) the researcher does not present "usable" results.
All of these situations can and do occur. This usually results in carefully done research which never effects policy or practice.

The first situation is one that often occurs in dynamic situations. The researcher must be constantly aware of the existing set of conditions and any changes which occur. It is not enough to "size up" a situation and make reccomendations. A researcher must anticipate changes and make reccomendations which can be considered in light of the alterations in the managers functional context.

This can only be achieved if the communication between manager and researcher is open and continuous. Unfortunately, this does not often occur for a number of reasons. The persons in these two different roles may come from very different educational backgrounds and have a set of experiences and training which inhibit effective communication. The jargon and way of thinking of one may be totally foreign to the other. Unless attempts are made to make each other understood the focus of the research may not be the information needed by the user.

It is certainly helpful if the researcher is interested in the topic under investigation. However, the topic must not be of interest to only him. Again, because the purpose is utilization the research must be needed by someone else.(Parker, in Shah)

A final problem between the researcher and his audience is the former's inclination to simply present results and the latter's need for results linked with their policy implications. Bernard Berelson describes the situation by saying, "Therein lies much of the rub between the researcher's products and the policymaker's need; The former does not want to go beyond the data, the latter cannot normally be limited within them. As the saying goes, one tries to solve puzzles, the other problems."(Berelson, p.258).

Westinghouse Health Systems, in their studies of contracptive prevelance, make this adaptation and translation

of information to the users needs an explicit goal. They have designed a system that, "by taking into account the data users, it is not only possible to target the data to their needs, but to prepare reports that conform to a style that will be of optimum utiltiy to them."(Workshop Manual, p.2.3.9)

One possibility for overcoming this gap is to involve policymakers at every step of the research process. Gary Lewis, of Westinghouse Health Systems, claims this is done by his organization in their contraceptive prevelance surveys. He explains the most important factor in getting information out is communication with the policymaker throughout the survey concerning what is being done and learned. By doing this policymakers anticipate results and have discussed with the researcher the possible ways they will by used. In their surveys Westinghouse primarily provides technical assistance in designing and executing the survey. This means that all of the actual survey work and a great deal of the analysis is done by local researchers. This has a two-fold effect. First, it strengthens the local research capabilities within a country. This should serve to improve the quality of future health services research. Secondly, extensive local participation means that there is a greater number of people who have a vested interest in the research and are likely to read and have input on the final report. Because Westinghouse usually works in collaboration with the Ministry of Health or Family Planning, a family planning agency or

academic institution policymakers and academicians will be closely involved with the project's results and will have insights into their potential uses.

At their recent conference in Thailand Westinghouse tried to aquaint policymakers with contraceptive prevelance surveys. The purpose of this conference was to:

1) Let people know what is happening with similar research in other countries.

2) Promote dialogue between policy and non-policy (i.e. research) persons in the country.

3) Discuss alternative policy implications suggested by the Contraceptive Prevalence Survey in their country.

4) Gain greater understanding of the usefulness of the Contraceptive Prevalence Survey, this focused on both its limitations and advantages.

5) Discuss research methodology, including research designs, sample size, sample selection and questionnaire development.

Gary Lewis felt that these objectives were achieved and that the Contraceptive Prevalence Survey was used in policymaking as a result.

The research technique, chosen by the researcher or the agency contracting the work, can have a substantial impact on whether the research is used. In studying health services research in Nepal, Campbell, Shrestha and Stone found that, "Survey research is an invaluable tool to collecting information, however, it is only one type of information and as a stranger(the researcher) the accuracy

has its limits. If not verified with another source there can be errors in information, because of techniques, which go undetected. It was their conclusion that Western survey research techniques cannot simply be transplanted to a non-Western setting. Survey research assumes a certain interpretation of reality and seeks objectivity by believing that, "human behavior is a result of various interacting factors which can be clearly defined isolated, quantified and causally correlated as variables".(Campbell, Shrestha, Stone, p.8) The fact that the technique was developed in an urban, literate and affluent society and is applied to rural, illiterate persons who are living in relative poverty meets with objections by these three authors in their study of Nepal. They attempted to determine how useful survey research is in Nepal by duplicating a previously completed study to determine its accuracy. Their results showed that the original research, considered to be representative of other survey research done in Nepal, had unvalidated results with large inaccuracies. They felt that one of the main causes for the inaccuracies was the use of survey research by foreigners without verifying the information with another source. As an example they found groups who, when interviewed told the researcher that they did not know anything about modern methods of contraception and at the same time were using those very same methods. Checking with the local family planning clinic might have revealed some of these inaccuracies. This is not to imply that the population

being surveyed purposely misled the interviewer but that somewhere during the interview there was a break down in communication which kept accurate information from being revealed. These three researchers discovered the inaccuracies by readministering the questionnaire, conducting indepth interviews and cross-checking with research which had been done earlier in the same area. They suggest that other researchers can and should take the same steps to insure accuracy.

In another study of Nepal, Campbell, Shrestha and Stone determined that inaccurate documentation of responses by the population being interviewed result from seven separate reasons.

1.The respondents' inability to provide the correct information because of:

a)linguistic unintelligibility of the question;

b)conceptual unintelligibility of the question; or

c)recall problems in remembering the question and the information for the answer

2.Respondents reluctance to give correct information because of:

a)sensitivity and privacy of the topic;

b)fear of negative consequences or desire for benefits; or

c)wish to project desired public image.

3.Interviewer error

(Campbell, Shrestha, Stone p.47)

In spite of the difficulties with survey reserch, it is

widely used and can accrue considerable benefits if implemented correctly. An important step in attempting to obtain accurate information is pre-testing any questionnaire. The purpose of this is to test for cultural appropriateness, interviewing technique and logistical feasibility. For example by pre-testing a questionnaire the interviewer can often determine if questions are worded in a way which is either culturally inappropriate or offensive to the interviewer. Interviewing technique, meaning both style and content, can be adapted to a population after pre-tested reactions have been garnered. Different cultures have different reactions to having strangers ask them questions. In some cultures it is appropriate to go into a person's house to ask questions and possibly sit on the best chair. In other cultures strangers are kept outside and questions must simply be asked at the door. More important and perhaps more subtle differences in culture exist which must be adapted to and can often be recognized during a pre-test. Logistical feasibility can also determine the success of survey research. For example, certain times of the day are the best times to conduct a survey. This is usually after sundown in an agricultural society, and therefore the question of providing a mobile light source must be considered.

It is the opinion of Thomas Cooke, an experienced survey researcher at Manoff International, that certain survey techniques obtain more useful information. He suggests that

researchers use surveys that contain open ended questions which allow the interviewee to respond with any information he sees as relevant. Cooke feels that only by doing this will researchers uncover unexpected information. He suggests that researchers tape record interviews whenever possible or appropriate. New information is discovered when an interview is replayed and this gives the researchers a chance to evaluate and discuss interview technique.

One of the most significant and possibly the most difficult problems to overcome when doing research in developing countries is the problem of measurement and data inaccuracies (Hoole, p.21). Data about population characteristics, health care status and use of health care facilities is likely to be inaccurate, outdated or not available at all. Requests of governement officials for background information or baseline data are likely to meet with negative responses or simply laughter. This derth of information will inhibit the use of time lapse comparisons in any reports other than those which need not show results for many years. One of the primary complaints in the Bohol Island study was that the first accurate data was collected by the study itself and the four year time line did not allow a significant evaluation of the project's effects. Any data the researcher collects should be made public for further research. A heavier reliance will need to be placed on collecting data in African countries, and doing research of an anthropological or descriptive nature when such data is

not available and research efforts can not wait.

Researchers often feel that the only way to remain unbiased and obtain truly scientific findings is to stay away from the politics which surround their topic. However, research which will significantly affect peoples lives cannot help but be political and researchers will benefit by anticipating rather than avoiding such considerations. Determining the topic of research can be a highly charged political argument in which the researcher may become unintentionally involved. The researcher may also need to be sensitive to these politics in order to relay politically viable recommendations.

According to Carmen Miro, "Better knowledge of the politics of population policymaking would provide a firmer basis for predicting the ways that different sorts of research results might be taken into account. Furthermore, accurate political analysis is a precondition for determining which government organizations are best able to take on the responsibility for both developing and advocating policy options."(Miro, p.434) The attention and new research funds focused on a project or program elevates it to a higher level of status and recognition. Any program manager or government official knows this and will probably vie for research on his program. In cases where the manager knows the program has considerable shortcomings he may resist an evaluation which would reveal these failings.

The use of language, drawings and photos must all be

checked as possible sensitive material. Mr. Ananth, of World Education, describes his orgainization's practice of sending a draft copy of all published material to the government of the country before its final publication. He has received requests for word and drawing changes after sending out the drafts. He stresed that one can only be effective when cautious steps are taken to make materials both interesting and non-offensive.

An essential aspect of getting research results utilized is the timing of the results submission. This is particularly true of evaluation research which aims to suggest alternative courses of action to the one currently being taken. If results are submitted to policymakers after a decision has been made they are clearly worthless. If the conditions or premis on which the results are based have changed significantly the suggested actions cannot or will not be taken. Dissemination and utilization effectiveness depends in large part on the timing of the reporting of results. According to John Novack of Westinghouse Health Systems, one often has to make a trade off between "quick and dirty" work which is timely in its dissemination and can be used and more sophisticated work which may contain obsolete information. To avoid this Westinghouse insures that the time between their survey and the submission of results to policymakers is less than a year.

Bernhart, in his study of family planning programs in Central America, found that to get "management innovation"

implemented the benefits of that innovation must be made very clear to the policymaker. To overcome the risk involved in any major policy decision the person making that decision must have complete knowledge of the benefits which will be gained and the risks which will be taken.

Bernhart cites Carl Rogers five factors which influence the adoption of innovation as 1) perception of the relative advantages 2) compatability with managers values and experiences 3) complexity of implementation does not require further training 4) trialability and 5) observability. (Bernhart, p.75)

Bernhart argues that management innovation in health care, most often as the result of health services research, will only be implemented under certain conditions which include: 1) flexible organizational structure 2) clear policy of supporting innovation 3) clear operational goals 4) interpersonal trust 5) a high degree of efficiency 6) an interdisciplinary staff 7) analytic skills and 8) an awareness of the innovation. (Bernhart, p.73)

It seems clear that the benefits of any program or program changes must be made very clear to policymakers. Similarly, policymakers and managers must know the cost of the suggested course of action. It is not enough for researchers to indicate that a program must be enlarged to be successful, they must also attempt to determine how large, how fast and at what cost. By cost it is not necessarily meant dollar cost but cost in terms of resources both human

and material as well as expenditures of time by existing staff. The costs and benefits must be articulated for the researcher's suggestions to have any hopes of being seriously considered.

Another factor inhibiting utilization is incomplete or shoddy research results. Results which are based on dubious statistical, survey or other research techniques are worthless and will either go unconsidered, unimplemented or result in unanticipated problems upon implementation.(Shrestha, in Shah)

Presented below is an example of a program in which considerable efforts were made to insure that researchers were qualified, research was translated into a language and form appropriate for the user, the results were practical and interdisciplinary and that the research quality was high. All of these efforts were made in an attempt to insure that the final research product would be utilized.

The Agency for International Development made prior "developing country" experience a prerequisite for being selected as a researcher for their "Knowledge Synthesis" project. The project was concerned with all aspects of community water supply and water borne diseases. The selection of academic researchers with less developed country experience was an effort to insure that the research would be of a high quality and relevant to the users needs. The program was intended to survey the "universe of knowledge" about the subject and distill this information into

1)executive summaries for decision makers, 2) reference manuals for technical management and 3)fact sheets (how-to pamphlets) for the general public. In an effort to insure documents of appropriate content and complexity the Agency for International Development's knowledge/information division held an all day seminar intended to aquaint scientists with what information was needed, who the audiences would be and how the information would be used. The Agency for International Development hired a person experienced with communication in health care, a World Bank anthropologist and a sociologist from the United Nations to lead and guide discussions on how to write documents so that the information can be applied in practice.

The writing of the research had two phases. There was both a research and an editorial phase in an effort to provide adequate content in a well written form. Writers were employed on this project to edit the work done by the scientific staff. Thus the researcher's only responsibility was to insure that the information was usable. Peer review of the research was conducted by other persons under the same contract and by personnel within the Agency for International Development. There were plans underway to have the materials pre-tested in Latin America and Africa but the problems encountered in the program has kept this from occuring. Plans were also made to identify the audience for this project by developing an extensive mailing list of potential recipients for the research product. There was no structured

plan as to how these names would be acquired.

The project results were highly unsuccessful. Earle Lawrence, of the Agency for International Development, described the researchers final reports as written for the scientist's "international counterparts." He explained that the researchers did not present materials for the appropriate audience and that writers will now have a difficult time in to distilling the information provided down to the form that the Agency for International Development wants and the less developed countries can use.

If given a chance to do this project over again, Earle Lawrence felt that he would not choose important and "big name" scientists again. He indicated that ex-Peace Corps volunteers, with graduate training, probably would make the best researchers in a developing country setting. He felt the combination of having had a lengthy exposure to another culture, as well as an indepth understanding from having lived within that culture in a non-academic setting, is the kind of knowledge which is essential for doing relevant research in Africa.

CHAPTER FIVE

"Dissemination of Research Results"

While dissemination is not the only factor affecting utilization, it seems clear that research which is not disseminated will not be used. The purpose of dissemination is to insure that if the necessary information exists it is available to the policymaker when it is needed. This requires that the information is received by the potential user before it is needed and in a form in which it can be utilized. The importance of adequate dissemination cannot be overstated.

Like doing the research itself dissemination should have clearly delineated objectives. These objectives will differ based on the type of research, the funds available to the project, the cross-cultural applicability of the research and the audience the results are designed to reach.

Targeted research results can be disseminated to either, what Bastscha calls, the primary or secondary audience. The primary audience includes top-level policymakers, their advisors, middle- level administrators, and relevant technical assistants. The secondary audience includes local academics, parliamentary groups, pressure groups, opinion leaders and journalists. Depending on the sophistication, confidentiality or specificity of the results one or both of these audiences might be appropriate. Batscha makes this deliniation because he

feels that these two different groups have different time frames, interests, responsibilities and capabilities. He also explains that the complexity and topic of the information will influence how it travels between these two groups. While this distinction between two types of research audiences seems overly simplistic, the point is well taken that there are extreme differences information needs and a variety of techniques for reaching one's audience. The better idea the researcher has about who his intended audience is and what their interests are the more likely he is to use a dissemination methods which will reach them.

There are many other groups, within the context of less developed countries which could be the focus for health services research dissemination depending on the topic. These groups might include nursing associations, physician groups, village health practioners, regional or district hospital staffs, donor agencies or Ministry of Health personnel. In each case the style of presentation or the context of presentation must be vastly different, even in cases where the information is the same. In most instances the information disseminated to these different groups will not be the same and it becomes crucial that the research audience be identified and targeted.

For example, it may be that certain results of health services research are most important for international funding agencies. Information on where funds go, how they

are used and what is the per capita cost of the program is particularly relevant to the agencies responsible for funding a project.

Disseminating research results can be either a passive or active process. Passive dissemination would include making results available in a location to be used when requested. The user must initiate obtaining the information in a passive system. Batscha argues that passive dissemination can be very effective. He suggests that when users are willing to go to the trouble of obtaining the information, they really want it and are more likely to put it into use.

Active strategies are situations where the researcher, funder or other organization sends the information to potential users. The advantage of this method is that it may encourage the use of information which might otherwise not have interested or been available to the user.

Listed below are the six most commonly used methods for disseminating health services research other than the final report format. In each case the method has actually been used by some organization and all methods have met with some degree of success. While it is impossible to generalize by claiming that one method is better than all of the others in every case it is true that alternative forms of disseminating health services research have different relative efficacies depending on the type of research and the audience.

Bibliographies

A number of organizations produce annotated bibliographies of the work they have sponsored or research results which have been submitted to them for publication. The International Development Research Centre, for example, publishes a bibliography entitled Low Cost Health Care and Health Manpower Training, which provides abstracts of health services research funded both by the International Development Research Centre and a number of other organizations. The bibliography is in its eleventh volume and each volume contains a total of 700 entries. The bibliography is sent to over 2000 organizations and is free to all groups in less developed countries. If a reader finds research would be of use or interest, they need only request the text of the research findings. The research reports are distributed in either printed of microfiche form. The International Development Research Centre is attempting to encourage the use of microfiche because it saves both printing and mailing costs.

This method of dissemination combines both passive and active aspects. The user receives the bibliography with no effort, except perhaps subscribing, but must request further information in order to obtain it.

This method is much more efficient, in terms of human and material costs, than sending the research findings to all potentially interested persons. The International Development Research Centre views the advantages of this

system as providing busy policymakers with access to a great deal of information in a "digestable" form. Policymakers can read carefully prepared abstracts which give them a concise presentation of the research project and results. However, the dissemination of the bibliography is not as effective as its compilation. Tony Lovink, of the Information Division, explained that although there were 25,000 organizations on the International Development Research Centre's mailing list, the development of this list was a "hit or miss" operation and the Centre has no way of knowing what organizations or types of orgainzations they are failing to reach. Similar sentiments were echoed by staff members at World Education, the Population Council and Technical Assistance Information Clearing House. Personnel in all three organizations commented that while their orgainization made an attempt to reach a large audience, they have no idea of groups they miss because developing a mailing list is a haphazard process.

Journal Articles

This is perhaps the most traditional and widely used method for disseminating research results in every discipline. Journal articles are particularly appropriate for disseminating information to the international community. If research findings have cross-cultural relevance, a widely circulated journal will reach people in many countries. The constraints on this type of

publication center around language and cost. Most journals are published in one or at most two languages (often English and French) and persons concerned with health care delivery may not speak these languages. Journals can also be relatively expensive to print and mail, and thus must be produced by organizations with sufficiently large budgets. While microfiche is a more inexpensive option, the reader machines are few and far between in Africa.

It is important that researchers not focus solely on disseminating their research in the better known international journals. There are many national and regional journals in Africa which focus on medical care and the delivery of health services. These journals are especially useful as a method of publicizing information which is either only relevant to a particular region or in the language of that region. They will also reach more potential users in a particular region, than an international journal.

Radio

This communication technique has been often used as a way to relay simple messages to a large number of people at a local level. A message relayed by radio must be short, concise and simple. Manoff International has successfully used this technique by creating dramatic dialogues which focus on nutrition and health care practices. It is a difficult and time consuming task to design the program, determine the number of radios in an area, pre-test, revise

and evaluate the success of the program. Surveys of the target population, both after the pre-test and final transmission, are done in order to determine how the message was received and what effect it had. This technique might prove useful in informing a population about when to use a health facility, where services are available and basics in first-aid. New research findings pertaining to health care can be presented through this medium. For example the World Health Organization's Expanded Immunization Program found through research that measles vaccine is most effective for children between nine and twelve months of age. Radio messages could indicate that this is the appropriate time to vaccinate a child.(OCEAC EPI-notes, p.1) Radio's particular usefulness is that is can be region specific in both language and content and can reach a rural population which has little exposure to other types of media. No information that is either complicated or sensitive could be effectively transmitted over the radio.

Posters and Pictures

This method of research dissemination, like radio, attempts to reach the non-literate community level population with simple information. Just as in the case of radio all materials must be pre-tested to insure that the message sent is the message received. This technique, used throughout the world, runs the danger of being invasive of an environment. Brightly colored signs with messages about

health care can either be viewed as modern and educational or an eyesore. It is important that those displaying such materials know the community's sentiments.

Conferences and Presentations

Conferences are used as a method for research dissemination in almost every discipline. The advantage of this method of dissemination is that it allows for interaction and questioning between the researcher and potential user. Many people (e.g.Williamson, Lewis) feel that information presented orally is also better remembered by the information recipient than that which is present in written form.

The Organization for Economic Cooperation and Development conducted an indepth study of the effectiveness of population conferences in Africa. The study surveyed the attendees of 47 conferences either held in Africa or focusing primarily on the population problems of Africa. Some conference organizers suggested that conferences were held as a forum for bringing together expertise on one specific problem with the objective of publishing research, while others said that conferences were held to exchange ideas and research results and to develop future policies. The study found that on the whole conference participants felt that such meetings were a fad, a waste of money and not particularly productive. Participnts suggested that conferences were poorly planned and therefore did not meet their potential as a tool for dissemination or a way of

affecting policy.

It was the sentiment of many conference participants that conferences did not facilitate the "cross-fertilisation" between disciplines which might be hoped. While participants did agree that the conference mode allowed exchange of information about current projects and successful programs, it appeared to be an inefficient and haphazard way to reach this objective. (Weeks-Vagliani, Hankinson, p.5)

According to the Organization for Economic Cooperation and Development report,"...no one could think of a case where conferences had been able to influence governments of developing countries, especially African ones, in the population area."(Weeks-Vagliani, Hankinson, p.25). However, examples were cited where the policies or attitudes of funding agencies were altered as the result of a conference. To accurately measure the effectiveness of conferences, one should measure both direct influence on policy and the more indirect influence on the way the issue is viewed in light of the new information. If after a conference participants feel that they have acquired new and useful information or had their old patterns of thought challenged, then indirect effects on policy are likely to occur.

All of the conferences examined in this analysis were held by large international agencies and the comments made should be couched in that context. It seems obvious that

local or national conferences could more easily focus on one particular topic or concern, and might therefore prove to be a better vehicle for the dissemination of more focused research. The definition of conferences or meetings can vary greatly from what is done by large international agencies in luxury hotels in capitol cities to much smaller endeavors. For example, in Bangladesh four or five policymakers are taken away on a boat by conference conveners for a few days and presented with new research findings or taught new techniques of analysis. One can easily see where the limited number of distractions available in such a setting might facilitate concentration on the meeting's agenda.

National and International Newsletters

A newsletter, by definition, provides a concise summary of an event or research result. Although it would be impossible to present the findings of a complex program in such a forum, newsletters could prove useful in alerting readers to the existence of new programs, policies, funding or major research findings. Location or person to contact for further information will give this method of passive dissemination a more active side. The problems with the way this dissemination technique has been used include developing a comprehensive mailing list, insuring that the publication reaches its destination and surveying the audience to determine if the information is useful.

Dissemination by International Organizations

Because the amount of published information on what is being done by international agencies to disseminate health services research is so scarce a series of interviews were conducted to obtain this information. In some cases the agency involved, neither engaged in health services research nor disseminated it, but disseminated some sort of information which can be used as an example. Summarized below is the work of those agencies which appear to be most effective in their dissemination efforts.

Westinghouse Health Systems

Westinghouse Health Systems is a small divison of Westinghouse Corporation. Westinghouse Health Systems is responsible for health projects within the corporation (e.g. stress management, training managers to spot and help alcoholic employees) as well as excecuting a number of contacts for work in international health care. One of their current contracts is to do a set of sixty Contraceptive Prevalence Surveys to determine patterns of contraceptive knowledge, use and availability in less developed countries throughout the world. The end use of this research is to provide policymakers in these countries with more substanative information on the contraceptive needs and practices of their population.

Gary Lewis, director of the Contraceptive Prevalence Survey project, indicated that the main strategy for getting the information disseminated was the following: 1) involve as many people as possible in the research

process, so that they have a vested interest and anticipate the results. He indicated that personal contact with potential information users is a key success factor. This is because if people have the information explained personally and have input in the process a greater level of interest is generated and they make efforts to recieve the results once they are available.

2) Minimize the "turn around" time between gathering the information and producing a report on the findings. This will help avoid a loss of interest in the subject or providing decisionmakers with obsolete information.

3) Hold regional conferences and seminars to present the information and describe the possible ways in which it can be used.

4) Distribute results to other countries who could both benefit from the results and request assistance in a Contraceptive Prevalence Survey in their country.

5) Highlight any new or surprising findings in publications and conferences.

Westinghouse Health Systems distributes information which indicates that they are available to assist in the development of a Contraceptive Prevalance Survey and that they should be contacted if sufficient interest exists. By doing this they are assured that there is a relatively high level of interest among potential research users. They then contact every group within that country whe could have some interest in the results and tell them that the

research is being conducted and solicit any input they might have about actually doing the research. They make efforts throughout the research process to distribute preliminary findings and surprising or unusual results. This is done in an effort to maintain interest in the topic and encourage suggestions or criticisms of the research process.

Population Council

The Population Council is one of the oldest and most reputable of all organizations doing population and family planning research. The Council produces two main publications in which they publish the research findings of their own staff. One of these publications, the Population and Development Review is a compliation of findings arrived at through academic research. This publication is sent out to a mailing list of over 6000 of which over 4500 are citizens of developing countries.

The Population Council also produces a publication entitled Studies in Family Planning which reviews programs in family planning, new techniques employed and what has proven to be successful methods of delivering family planning services. This publication is distributed to over 11,000 groups and organizations.

In 1980 a readership for Studies in Family Planning survey was conducted which asked readers to give some information about themselves and indicate whether they wish to continue to receive the publication. The response rate

was 60% of domestic readers and 30% of foreign readers. While this type of survey can be very useful in determining readership attitude and demographics, the endeavor can be very expensive and time consuming. If questions are not asked about the usefulness of the information, what other information would be useful and what problems exist, the benefits of such a survey are rather limited. This survey was used to get rid of obsolete subscriber information, increase the mailing list by asking each person to indicates another person who would be interested and detail the computer codes on reader's interests and expertise. Thus, purely informational questions (e.g.readers occupation, degrees, institutional affiliation) were asked rather than more revealing attitudinal questions.

Discussions with the Council's editorial staff revealed that only informal mechanisms of assessing research usefulness and dissemination are used. Peggy Knoll, of the Office of Communication, explained that the success of the Population and Development Review and Studies in Family Planning is determined by the number of people who request and pay for the publications, field staff seeing the publications in use, letters of thanks or commendation being received or futher requests for information. No more formal mechanism is used to assess the effectiveness of these two major population research publications. These methods are both haphazard and ineffective. They rely on the chance the readers will

write the Population Council or that staff will see the publication in use. Additionally, the publications are disseminated free of charge to persons in less developed countries, so willingness to pay can not be used as a criteria in developing countries.

A telephone survey of Population and Development Review readership was done by a consulting firm hired by the Population Council. Because the survey was done by telephone, and international calls would have been too expensive, the firm only queried domestic readers which are less than 20% of the total and not representitive of the entire readership. Fifty persons who had not renewed the publication were contacted and asked:

-What they liked about the publication
-What they disliked about the publication
-With what other journals they had subscriptions
-How they would compare the Population and Development Review to other similar journals in both format and content
-How they would describe the journal to a friend
-Why they did not want to continue to receive the publication

The response to the quality and format of the journal were positive and complementary. Most persons surveyed had discontinued their subscriptions because their areas of interest had changed and the Population and Development Review was no longer relevant to their information needs. Some readers also added that their institutional affiliate

would no longer pay the subscription fee so they had discontinued the subscription.

Although this information did not reveal any changes which the publication needed to make, it did assure the staff that losses in readership were not due to factors under their control.

Agency for International Development

Following a study which indicated that research funded by the Agency for International Development funded research was not well distributed, the Agency established a division charged with reviewing research and assessing its use in practice.

The Agency for International Development currently publishes a compendium of research abstracts which outline what research is being conducted or has recently been completed. These abstracts are sent to 8,000 institutions which can then request the entire text of the research finding on either paper or microfishe. Bi-monthly the Agency for International Development also disseminates a short publication entitled Resource Reports which descibes practical "how to" successes which have been achieved by the Agency for International Development missions or grants. This publication receives wide distribution and is noted for its concise presentation and practical content. Maury Brown, of the Agency for International Development's Information Division, feels that the publication fails to meet its potential because of the failure of sources of

information within the Agency for International Development to give his division useful research results. He faults the research gathering process rather than the transmission or reception.

The measure of success used to evaluate the effectiveness of Resource Reports is the number of requests for further information on a topic disscussed within the publication. The problem with this is two-fold. First, just because someone requests the text of a research project, which is free, does not mean that the information will be used. It is Brown's impression that there is some status involved in having a substantial office library and that policymakers might request reports to build up this collection. Secondly, if requests for further information are not received, the Agency for International Development has no way of knowing if this is because the research topic summarized is not relevant to the user's needs, whether the focus of the research is not relevant or whether the bibliography just never reached the potential user.

Brown also indicated that the Agency for International Development has spent over four million dollars creating a number of data bases on subjects relevant to development and that this information was largely unused. The Agency for International Development interns have made regular requests for information but other groups and individuals were either unaware of or uninterested in such information. Further discussion revealed that the Agency had not made

this service sufficiently well known or indicated clearly to potential users how information should be obtained.

The following information is a summary of the dissemination efforts within eleven of the organizations surveyed during this study.

(1) GENERAL simply refers to non-directed efforts at dissemination in which information is made available to anyone on request.

(2) These are short reports which indicate all of the American organizations which are involved in any given country.

(3) Columbia University has a computerized data base of a great deal of the information published in English on family planning and population growth. Reprints of any article are available on request.

(4) The results of this survey were so full of praise for the information provided that the results were considered too uncritical to be useful.

ORGANIZATION	NUMBER OF PERSONS INVOLVED IN DISSEMINATION	METHOD USED FOR DISSEMINATION	MEASURE OF SUCCESS	TARGET AUDIENCE
CARE	ONE	BOOK/PAMPHLET/ CONFERENCE	NON-SPECIFIED	CARE STAFF/ GENERAL (1)
TAICH	NUMEROUS	NEWSLETTER/ COUNTRY REPORTS (2)	NON-SPECIFIED	GENERAL
POPULATION COUNCIL	NUMEROUS	JOURNALS/ CONFERENCES	READERSHIP SURVEY/REQUESTS	GENERAL (EDUCATED)
WORLD EDUCATION	ONE	BOOKS/ NEWSLETTERS	NON-SPECIFIED	GENERAL
COLUMBIA UNIVERSITY	ONE	COMPUTER DATA BASE (3)	USER SURVEY (4)	GENERAL
MANOFF INTERNATIONAL	ONE	RADIO	PRE- AND POST-TESTING	COMMUNITY LEVEL
APHA	NUMEROUS	JOURNAL/NEWSLETTER STUDIES/REPRINTS	NON-SPECIFIED	HEALTH CARE PERSONNEL
AID	NUMEROUS	BIBLIOGRAPHY/ NEWSLETTER/DATA BASE	NUMBER OF REQUESTS	GENERAL (AMERICANS)
IDRC	NUMEROUS	BIBLIOGRAPHY/REPORTS COMPUTER DATA BASE/ CONFERENCES/FILMS	READERSHIP SURVEY NUMBER OF REQUESTS	GENERAL
WESTINGHOUSE HEALTH SYSTEMS	NUMEROUS	REPORTS/ CONFERENCES	NON-SPECIFIED	POLICYMAKERS IN DEVELOPING COUNTRIES
NATIONAL COUNCIL INTERNATIONAL HEALTH	ONE	NEWSLETTER/ CONFERENCES	NON-SPECIFIED	AMERICAN ORGANIZATIONS

The number of persons within an organization which are responsible for the dissemination of research is determined either by the size or purpose of the organization. For example, in the case of Columbia University, Manoff International and the National Council for International Health it is the small size of the organization rather than its programatic focus which requires that only one staff person to be involved with research dissemination. Conversely, CARE has only one person working in this area because they consider information dissemination of less importance than the other functions they perform. All of the organizations in this sample which have numerous people responsible for research dissemination are both large and consider this function of primary In each organization, which has more than one person responsible for dissemination there is an entire division or department devoted to research/information dissemination.

The technique chosen for dissemination within these organizations has to do both with the kind of information they disseminate and what practice has evolved within the organization. In other words Columbia University's Popline could just as easily be a bibliography like International Research Development Centre, as a computer data base from which information on specific reports or topics can be obtained. It is partially the affiliation with the American Medline and partially for experimental purposes that the information is on a computer. On the other hand ,

Manoff International is disseminating research to a illiterate rural population and radio is one of the few choices available to reach a large number of people in this setting. With the exception of Westinghouse Health System, Manoff International, the International Development Research Centre, and the National Council for International Health, no analysis of the costs and benefits of different techniques had been undertaken in any organization. Marilyn Campbell, of International Research Development Centre's publications department, has done extensive work with determining the various costs of a variety of dissemination techniques including, reprints, books, pamphlets, films and seminar. She weighed these expenses against the against her intuitive sense about which methods are most effective to reach a particular audience. While the use of intuition as a factor in cost-benefit analysis of dissemination techniques is not lauded, this is the only case where explicit efforts were made to choose a communication vehicle by making a choice among a number of options. In other words the International Research Development Centre, was the only organization who could give me some explanation and analysis of the costs and benefits of why they chose a particular method of information dissemination.

Out of these eleven organizations five indicated no defined way of measuring or in any way attempting to evaluate their dissemination efforts. Only four have

attempted to contact the recipients of their research to assess the impact of the information and out of these two (Columbia University and World Education) had data which was either useless or dated. In the case of the Population Council, and the Agency for International Development the "number of requests for further information" was one explicit form of evaluation used although the criticisms mentioned above indicate the frailities involved in using this method. Manoff International's motivation for their extensive use of evaluation arose from their use of innovative techniques and the requirement of writng a final report for the funding agency.

One of the primary problems with attempting to measure the effectiveness of dissemination is also the lack of a well defined research audience. Westinghouse Health Systems, Manoff International and the National Council for International Health all had target audiences to whom they could tailor the content and presentation of their research and determine if the results were received and used. In the case of Westinghouse Health Systems and Manoff International this is because they are doing consulting work which has a rather specific focus. In the case of the National Council for International Health they have chosen to work with American organizations involved in international health and therefore have an audience which can be measured relatively easily.

In every other organization the research audience had

evolved and no criticism had been levied as to whether the current audience was the one who would find the research to be the greatest benefit. The only policies which had been made concerning the recipient was whether the persons name or just his institutional title should be used. Even on this relatively simple point there was major disagreement between those who felt that the only way to maintain an accurate mailing list and to insure that the information is delivered is to use title and no name and those who feel that this is like sending "Dear Resident" mail and it will be discarded. While there is not clear resolution to this conflict, the better known the organization is and the more legitmate their publication is the better are the chances that it will be read even if it does not indicate the addressee by name.

However, the important issue which arose here is that those organizations who had no clearly defined audience could not adequately measure their dissemination effectiveness and could not take steps to improve their practices because they had no idea where their failings lay. Without exception the rule of thumb was "more is better" . Each group felt that they were doing their job and improving performance if the size of the list they disseminated to increased. The problem with this, as mentioned above, is that it indicates nothing about how well the information is used or even if it is used.

If these organizations were to more clearly define the

focus of their dissemination, systematically evaluating these efforts would be facilitated. It might not be possible to define just one audience but if perhaps one or more specific types of users were targeted, efforts could be more directed. For example, if the Population Council made as their target audience all private voluntary organizations involved in family planning, and any academic institutions which have programs which investigate the problems of family planning then material and efforts could be more directed. They could still distribute their publications to any person who requests them but this definition of the audience would give their efforts more structure.

CHAPTER SIX

"Future Study of Utilization and Dissemination"

The most important conclusion arising from this research is that the obstacles to utilization are great, the problems are complicated, but the task is not insurmountable.

It should be clear at this point that the development of dissemination mechanisms has largely been a trial and error process and that errors or failures have been determined through casual observation and intuition. There have been no comprehensive studies which attempt to trace the flow of health services research in less developed countries from the stage of development through implementation.

Without better knowledge of what happens at every stage of this process dissemination will not become more effective. There are many questions which must be considered if the effectiveness of an organization's dissemination efforts is to be discerned. For example, once research findings are transmitted to the intended recipients, are they used and by whom? How does the information travel within the policymaking bureaucracy and are there persons within this process who should initially receive information because they facilitate dissemination? Is title, role, personality or interest, the primary factor in determining who receives what research and how they use it? Again, this type of study is both difficult and

complex. However, when one considers the amount of human and material capital which has been devoted in past research and will be used in the future, the cost-effectiveness of such a study could warrent its undertaking. Large organizations, such as the Agency for International Development and the Population Council, who spend millions on research every year can not only afford such a study, but can not afford the loss in effectiveness from not having determined their research audience and and that audience's information needs.

Discussed below are two types of health services research and the methods of dissemination which facilitate their use. In each case there is a discussion of a dissemination method now in use, the problems and benefits of this method and the possible types of research which could reveal viable alternatives.

Health Services Research with Very Wide Applications

This category would include research which focuses on techniques for dealing with problems common to a number of settings. Examples of such problems would be an examination of the effectiveness of different types of health care personnel in a rural clinic setting, the problem of moving patients where no motorized vehicle exists, or the best way to tranport vaccine which must remain cold.

This type of research would have appeal to a very large audience in almost every cultural setting. The

International Development Research Centre appears to have developed an excellent technique for dissemination this type of health services research. Their bibliography allows them to disseminate health services research to a very large number of people without sending the text of that research. They have computerized all of the entries to their bibliography which facilitates coordinationg such a large body of information and allows easy retrival when requests for further information are made.

Because the International Development Research Centre has their mailing list computerized and labeled by interest and specialization they can be sure that their bibliography is only sent to those persons directly concerned with the delivery of health care. This mailing list can and is continually updated to represent changes in organizations and their personnel.

The research published in the bibliography has all been reviewed and found to have relevance to health care delivery in less developed countries. In this way the International Development Research Centre functions as clearinghouse for a large body of research done throughout the world. This quality control function is very important in a field where there is constant criticisim that the low quality of health services research inhibits its own effectiveness.

The International Development Research Centre knows where and when they sent information and can therefore

survey their readership to insure that information is received and to elicit suggestions on the publication of the materials. This is extremely important because a readership survey in 1976 revealed that a siginificant fraction of the bibliographies which left Canada never reached their destination.

The problems in assessing the effectiveness of disseminating research with wide application are considerable. Research results which are intended to bring perspective, challenge the status quo or initiate a new way of thinking have a considerable time lag between dissemination and utilization. Changes in methods for dealing with wide-spread problems are slow in being made because people have a vested interest in the current thinking, the litany has a self-reinforcing quality and benefits from the new way of thinking will take considerable time to come to fruition.

It may also be that the results of such research have an indirect effect on policy and are therefore very difficult to measure. The dissemination of a new idea may initiate a new way of doing something and the link back to the original idea may be difficult to make.

Readership Survey

However, if any successes are to be reached or advances made in disseminating health services research with wide application, then efforts must be made to overcome these obstacles. Although neither the

International Development Research Centre or the Population Council have used their readership surveys to determine the influence of the research they disseminate, this survey technique can be used to determine the effectiveness of research dissemination.

The more unusual the research results are the easier it will be to trace their dissemination. In other words research results which differ from the status quo will be better remembered by the information recipient and thus the source of the information will be easier to locate. For example, the Agency for International Development published a short summary of a report on how to "build a better water pump". They received may requests for further information and they could have followed these contacts as a means for modeling information flow.

In the case of both the International Development Research Centre and the Agency for International Development follow up could be done by asking recipient a number of questions about the research they received. Some possible questions include:

-Did you read the information which was sent to you? (A quesion about the research which would verify the response to this question could be asked.)

-Was the information relavent to your work? How?

-Did it give you the information and the detail you needed?

-Did it change your view on the topic?

-Did it cause you to change your current practices?

-What information did you need which you did not receive?
-Did you discuss the findings with other persons?

Question Answer Service

An additional service which is now provided informally, but which should be provided formally by large organizations is a question answering service. This is done in West Africa through a program called Permanent Question/Answer Service. This is a service funded partially by the International Development Research Centre which answers informational questions for persons in developing countries, free of charge. Permanent Question/Answer Service has a large library and every question for which the answer is not available on-site is supplemented with information from other sources. Therefore, no question goes unanswered. The purpose for large international agencies doing this would be that it is one of the most effective techniques for dissemination because it addresses a particular question. The person requesting the information has a need for it and if the appropriate information can be provided it will be used.

While more rigorous study of what factors affect the dissemination of data research has not been done in the context of less developed countries, research which examined this question has been conducted in the United States. Disscussed below is a study to determine how research gets used and disseminated within an organization. The findings of the study and its shortcomings are

presented as an example of systematic research which can identify information flow.

In 1974 the National Science Foundation/Research Applied to National Needs funded a series of experiments designed to assess and meet the information needs of federal policymakers. Public opinion data was determined to be one of the relevant inputs to policy formation and an eighteen month experiment was conducted which provided this information weekly. The criteria for success were established as:

1) If after the initial period agencies voluntarily paid to have the information service provided.
2) The information was used by policymakers.
3) Policymakers views on social science related research were positively affected. (Rich, p.240)

The purpose of the research was to test the following hypotheses.

1) The greater the tradition of expertise in a given organization, the less information independent of the judgement of the organization's personnel will be used.
2) Bureaucratic rules and procedures will tend to limit the use of information that is not generated in house.
3) Information collected in connection with a multi-agency project will tend to be put to less use than information collected by a single agency.
4) Information will tend not to be utilized if its use would violate "organizational interests".

Interviews with recipients were conducted to verify these hypotheses and it was discovered that information was used in one of two ways. The distinction is made between research whose effects are conceptual and those whose are instrumental. Instrumental use refer to use which is easily taken note of and is of a direct nature. Conceptual use, on the other hand, is harder to measure and is of a more indirect nature. This type of use manifests itself in changes in attitude, ways of posing a problem, and techniques used in analysis.

For both of these types of information use, the research results are usually disseminated throughout a decision-making bureaucracy. The study hypothesized that it was organizational interest rather than the quality or format of the data, which affect its dissemination throughout the agency. The main reasons given for distributing research results included, "This is an area we are pushing for so its important to send the information" or "This is of general interest". Reasons for not sending information primarily included, "Enough information was sent in this area already" and "Our policy-makers are not interested in this information". (Rich, p.243) The issue of research objectivity was only mentioned in a few responses as the reason for not sending on information. The decision to continue receiving the research appears to be more highly related to bureaucratic concerns than to judgement. Another crucial factor which affected the use

of the research was the previous exposure and position in the decision-making process, of the personnel exposed to the survey. Persons who had a direct link to a person with direct decision-making responsibility (e.g. an assistant Secretary) had a greater ability to use the information. Similarly, users who had previously worked on research projects or been exposed to survey research methodology were also more likely to use the research.

A major factor determining how information will be used stems from the decision about how data will be collected. Thus, the National Science Foundation/Research Applied to National Needs study revealed that policymakers who have input in the design of the data collection process and throughout the process are much more likely to use the data when it becomes available. This comes not only from having a vested interest in the project but also an understanding how and when the information can be used.

This project concluded that there should be a person available to translate information from the technical style and terminology used by the researcher. This should be done by a person who understands the full complexity of the problem, the techniques used by the researcher and the information needs of the policymaker.

Again, a theme concluded by all persons studying information dissemination is the need for researchers and policymakers to maintain open communication. While this is a somewhat vague recommendation it is no less important

than those with a higher degree of specifity and should be considered as seriously.

Finally, the National Science Foundation/Research Applied to National Needs study concluded that researchers should summarize their information and attempt to provide longterm trends. To this can be added that researchers should present the full range of policy options as they see them, and what the costs and effects of each entail.

Although this study made a concerted effort to determine the primary factors affecting utilization the evaluation was cursory at best. Without evaluating the dissemination of various kinds and qualities of research it is impossible to determine that the organizational context of the agency has more effect on this process than the usefulness and quality of the research. Because the project looked at specific types of research information and particular agencies, specific recommendations could have been made and were not. One wonders if the researcher of this project have not fallen into the same trap they warn against, by not having overcome the temptation to provide research users with recommendations which are useless because of their lack of specificity.

Program or Evaluation Research With Limited Application

This type of research is commissioned by an organization and attempts to assess the performance of a particular program. The applications of this research are limited to improving the program's performance or serving

as an example to similar programs.

The primary factor in the successful dissemination of this type of health services research is the user's interest in the research. For research that examines a particular program or issue, the relationship between the researcher and user and whether the user's information needs are met, are the two prominent issues. If the user and researcher have not made their respective needs and capabilities known to each other, the result will be unsatisfying in both cases.

This type of research must contain very detailed findings. In cases such as this it is important to give both information and recommendations in their most specific form. The user has a specific need for this information and is usually familiar with the program being discussed. The more specific the researcher can be in his evaluation the easier it will be for the policymaker to use his research.

Case Study

The effectiveness of evaluation or project specific research is much easier to document than other types of health services research. In such cases the potential users can be more easily identified and a survey method need not be used. Because it has never been done, the amount of information which could be gained from a set of carefully documented case studies of the process whereby research is transmitted and utilized, is considerable. For

example, if a group of researchers were to pick a few health care projects, half of which are undergoing ex poste facto evaluation and half of which have their evaluation staff as an integrated part of the project's organization, they could then study the two types of project evaluation. Case studies could also be done by the program's research staff simply by documenting the role played by research throughout the project. The only question which might arise in such self-reflection is one of objectivity and a reluctance to admit or detail mistakes.

The case studies should begin with the initial stages of deciding the research topic and process. The purpose here is to document how the decision is made, by whom and to compare later what changes needed to be made to this decision. It is of primary consideration to document to relationship between the research persons and the program staff. By doing this during the process no speculation will need to be made concerning what was the relationship and how it affected the role played by the research results. The research technique, the problems and successes of that technique and the general ease with which the research is carried out should all be noted as factors affecting utilization.

The case study should attempt to document answers to the following questions:

-Did the researcher involve the user in defining the problem

-Was the user made aware of preliminary steps and interim stages of the final product

-Did the researcher address the problems suggested by the user

-Were the audiences determined before the completion of the research

-Were different reports written for different audiences

-Did the researcher meet with the user (when possible), to explain the results, and answer questions which arose

-Was the user kept informed of the progress of the research

-How was the research plan and technique determined, and by whom

-What problems arose in the implementation of this plan

Because the research audience can be easily defined (the funding agency, local government, program management), individual interviews can be conducted to determine:

-Was the information what you expected ? If not, how did it differ?

-Whose information needs was the researcher trying to fill?

-How was the research presented?

-Was the presentation effective?

-What did you expect to do with the information?

-What did you do with the information?

-Who do you think could benefit by the research?

Some preliminary steps were made toward doing this type of study by Williamson in the Bohol Project. In both the final report and the report in Studies in Family

Planning she attempted to articulate the role played by the research staff in the operations of the program. The lessons she articulated from this program can be generalized to other programs. This is the kind of information one could hope to obtain through a series of case studies. Summarized below are some of her most important findings.

1) There was "timely and relevant" information available for management decisions. This allowed the project to solve logistical problems and attempt innovative solutions.

2) The inaccuracies and constraints of hand tabulation were outweighed by the benefits of prompt results. Survey research tabulated on a computer in Manila often arrived back at the project after too late to be used.

3) It is beneficial for managers to have some research training and for researchers to understand the operations, goals and full compexity of the project.

4) Researchers and staff should decide on a limited number of indicators or performance and work on quality of reporting these measures rather than quanity of data collected.

5) The project's period of observation was too short to note demographic changes (two years). Projets of this nature should either be lengthened or the gathering of demographic data should be duplicated some years later to document the project's effect.

6) More research should be attitudinal because the program

clearly showed that the availability of family planning services indicates nothing about their use, attitude is thus considered the major determinng factor.

7) Research results should be more widely disseminated especially in professional and popular periodicals. Results should always be presented orally and repeatedly.

The results revealed from this project could be useful for other projects in the field of family planning and health care. It is assumed that repeating Williamsons type of analysis, in more detail and with other projects, will reveal similarly insightful suggestions and an improved understanding of how research travels from the development to the implementation stage.

An international funding agency can play an important role in this process by distributing information which applies to a specific problem in one place in the world to a similar problem elsewhere. The importance of this capability should not be overlooked if research time and money are to be more effectively spent.

CHAPTER SEVEN

"Recommendations and Guidelines"

In his study for the Organization for Economic Cooperation and Development, Robert Batscha concluded that research was not successfully disseminated because, "...there has not yet been any empirical study which has attempted to identify and evaluate who these audiences in the development field are, or what specific information resources they have."(Batscha, p.181) Like most important things, this is much easier said than done. There are, however, steps to be taken in order to close the gap between research production and utilization. The following goals are set forth as steps toward the attainment of this objective.

-Fully utilize all existing channels of communication and dissemination. Rather than establishing new publications, for which there is no derth, disseminating usable research in well known publications (e.g.Journal of the American Public Health Association) would be more effective. An established communication link has its own audience and a level of legitimacy which is an asset in research dissemination.

-International funding agencies should develop policies which require the dissemination of research results and provide the funds to comply with such a regulation. This will provide an incentive to research organizations to take steps toware increasing the effectiveness of their

dissemination efforts. If the Agency for International Development were to impose such a requirement it would affect a significant proportion of the American organizations involved in disseminating health services research.

-More programs like Permenant Question/Answer Service should be established which answer the research needs of persons in less developed countries. Such programs have the advantage of giving the user what he needs and thus having a higher level of research utilization than mass distribution.

-More general recommendations on research utilization, such as those given by Rich, suggest that a new breed of researchers and managers need to be trained. Their idea suggests that researchers be trained not to further their discipline or to strive for academic excellence, but to produce health services research for the sole purpose of being utilized. New managerial training would include exposure to research techniques, problems and uses. Such an adaptation to the Western edcuational system would be slow, while it is necessary to make such modifications other changes, which have more immedicate effects must be made in the interim.

-Many of the large international research agencies (e.g.International Development Research Centre, the Agency for International Development) are currently employing writers-journalists to translate research results from

research jargon to the dialect of the user. While such efforts would be unecessary in a world of perfect communication between researcher and user, in view of the real world this practice should be encouraged.

-Efforts to build up research capabilities in African countries, like what is being done by Westinghouse Health Systems, should continue. By simply bringing a framework and guidelines for their Contraceptive Prevalence Survey,Westinghouse Health Systems provides assistance and training for the researcher in the countries in which they are involved. If incentives were given for assembeling teams of Western and African researchers rather than one to the exclusion of the other, a blending of academic techniques and situational relevance might take place. It should be noted that the learning in such a situation would be between African and Western researchers and the benefits would accrue to the user who has higher quality and more relevant research. One clearly takes the chance in such a situation that a struggle will arise (either the Western or African contingent overemphasizes the academic aspects of the research) or that a process of cooptation will take place, but the possible benefits outweigh this risk.

-The establishment of guidelines for research utilization should be developed in an effort to encourage such a process. The guidelines, subject to multiple revision, would attempt to sensitize researchers to the issues involved in making their research usable. The guidelines

presented in Appendix 2 are such an attempt. They outline the basic issues a research must be alerted to in order to communicate effectively with the research audience. The guidelines describe what steps should be taken in the researcch and reporting process in order to facilitate utilization and implementation. A check list of the important items to which will aid this process are also presented.

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APPENDIX 1

QUESTIONS ASKED DURING ORGANIZATIONAL INTERVIEWS

UTILIZATION OF RESEARCH RESULTS

-How do you determine if your research has been utilized?

-Have you seen the results of your research implemented?

-Can you give me examples where you feel your research affected policy or practice?

DISSEMINATION OF RESEARCH RESULTS

-What individuals or groups request research results?

-To what groups or individuals do you send research results?

-How do persons become aware of your services?

-Do you have a mailing list? How was it complied?

-Have you ever disseminated information to an illiterate population?

-What language or translation problems have you encountered?

-How effective are your "in country" channels of research dissemination?

-Who is the initial-intermediate-end recipient of the research?

ALTERNATIVE METHODS OF RESEARCH RESULT DISSEMINATION

-What current communication channels have you established?

-What tools of commmunication do you use?

-Why have you chosen these methods?

-Can you think of any communication technique not currently employed?

-What are your dissemination costs?

-How do you determine the benefits of your dissemination?

-What do you think you could do to be more effective?

APPLIED RESEARCH ON PRIMARY HEALTH CARE PROBLEMS: HOW TO MAKE IT LIKELY YOUR RESULTS WILL MAKE A DIFFERENCE

There are a number of factors, which when considered during the process of researching and reporting, greatly facilitate the utilization of health services research. Listed below are ideas and suggestions to be considered before research has begun. In each case the issue to be considered is not complicated but requires that the interests of those who will use the research be kept in mind.

DESIGN OF THE RESEARCH

Focus on priority problems

Research results are more likely to be utilized when the problem studied is of major concern to the research audience. While there is no assurance that research results will be used, one can be sure that they will not be used if they do not address issues of fundamental concern to the user. Health care organizations in developing countries are chronically understaffed and research reports will only be read which are directly relevant to the user's program objectives. To be most effective you must be sure to select a topic where the results of your research can make a difference.

Get to Know the Community and Its Needs

Research results will only be of use in situations where you have considered, and have been sensitive to the environment in which you will do the research. It is important that you become aware of any special beliefs and attitudes the community has about health care and about your presence as an outsider. You must remember that you will be having some affect on the community and it is your responsibility to see that it is positive.

It is important that you get to know a community before trying to gather information. Make an effort to meet community leaders and develop relationships with those who are highly respected. It is often very important to be introduced by someone from the community who is respected and trusts you-before beginning any data gathering. In order to do this you must try to cultivate the interest and respect of community members for the topic of your research. It is important to stress the similarities between you and community members and to guard against being thought of as an "ivory tower" academic or "government" person. Rather than putting community members in a position where they are continually answering questions, try to encourage them to talk about what they see as important about the topic under investigation. It is important to insure that your responses are supportive and non-threatening or you will not be given further information.

Being sensitive to a community's needs also means that you must be aware to the economic conditions and resource restrictions which exists in the area being studied. This requires that you investigate what technological and human resources are available and can be used in providing health care. Successful utilization will also be affected by community opinion of the research results and the political climate in which the results will be implemented. To make usable recommendations you must be aware of how both of these factors will affect the acceptance of your results.

Involve potential users in the research process from the beginning

One way to insure that research results are of interest to the user is to ask both the community and health workers to identify their most pressing problems and issues of concern. In cases where you are familiar with the health care setting you should plan to spend time observing the program and learning all you can about it.

This period of exploration might include strategy meetings with those who are both likely to use and possibly be the focus of the research. Individuals and groups you might confer with could include:

- policy and decision makers in the central and/or local health delivery structure likely to use research results
- health care workers in organizations that may be studied
- community leaders and residents in areas where research may be undertaken.

Groups such as this could be involved from the beginning in helping you identify important problems for research whose solutions are of real interest to them. They could also be involved by telling you what they already know about the situation, identifying what information still needs to be gathered, and how it might best be done. In many cases one or more of these groups could also participate in gathering data and analyzing results. A number of health programs, for instance, have quite successfully involved community members in the whole process of program evaluation. Potential research users that have had active involvement in identifying relevant problems and possibly planning and assisting with the research, are much more likely to use its results.

CONTENT AND PRESENTATION OF RESULTS

Present your research results in a way that meets the needs and interests of different users.

Even the best research and recommendations will have no effect on policy if they are presented in a way which is unattractive of difficult to use. Different research audiences have various needs for the information and different levels of understanding of the subject matter. Reports on your research must be targeted to your different audiences.

For exapmle, research about the spread and danger of a particular disease and suggestions about its treatment or eradication would be of interest to persons in the Ministry of Health, hospitals, doctors, village health workers and individuals living in the infected area. However, each of these groups has a different level of knowledge about the disease and needs to know different facts about its treatment. To be effective, you must know what audiences could use the information and how it should be presented to them. To do this you must be aware of the educational, cultural, physical and social gap that may exist between you and the research users. To help bridge this gap, present the information in a way that anticipates what the user will need the information for and what questions may arise.

Present results in a clear and simple form

Research results which are intended to be applied should be presented in the simplist form. This means that only necessary statistics, mathematical equations and details should be given. Both reading and implementation are made easier if simple language is used and the problem results and recommendations are stated concisely.

Tell your readers all they need to know to make use of your results.

All research reports indicate results but in case of applied research those results must contain a specific course of action. Research findings cannot simply be presented they must also be translated into recommended steps for action. Each recommendation must be justified and based on results presented in the content of the research report. Alternative courses of action must also be presented with a sufficient explanation of why they are not recommended as highly. The researcher should also alert readers to what might go wrong in implementing the proposed course of action. This involves elaborating on what has gone wrong with similar courses of action, what could theoretically fail and how best to avoid such pitfalls.

You should also present the reader with documentation of what resources will be required to implement your recommendations. This information can take the form of detailing the cost of an actual,similar or pilot program. If the program has not been run before and such costs are unknown, you should make estimates and indicate that your figures are only estimates. The cost of a program does not need to be presented in terms of how much money will be required. A listing of what personnel, equipment, and supplies will be necessary is sufficient background on program costs.

Above all to be taken seriously, the researcher must present results which are believable. Any results which does not make intuitive sense or seems contrary to conventional wisdom must be carefully explained and supported with evidence. There must be proof that the recommended course of action will lead to the results you have indicated. This proof must not be vague and should take the form of an example of actual cases or presentation of results of an experiment.

Begin your research report with a short summary

Every research report should begin with a two to four page summary, often called an executive summary, which states the problem, methodology, results and recommendations. This summary is for decision makers who may not have the time to study a report but are interested in learning the most important findings of your research. The summary also serves as a preview to other readers who will then read the entire report.

Put all of the necessary information into your research report.

It is important that the summaries and the research report contain all of the information the reader needs to know about the topic. It is very frustrating for a reader to be referred to another piece of research which cannot be located or is not available. When you refer to work done by others make sure that it is either not essential to the implementation of your recommendations or you have reproduced or described it within the report.

An interesting looking report is more likely to attract readers.

To read a report it must be useful and interesting but it must also look interesting. Whenever appropriate, you should include photos, graphs and drawings which aid in the presentation of the research. However, anything expressed in illustrations must also be said in words. You cannot assume that the reader will understand your illustrations so the text may refer to them but not be replaced by them.

If expenses allow, a cover should be placed on all printed materials. This will encourage people to keep the document and possibly use it more often. A covered report is less likely to be thrown away, then a stack of paper stapled together. Brightly colored or attractive covers catch attention and may also encourage reading.

A sample outline for the research report

Presented below is a sample report outline. The format may not be appropriate to every research report and should be viewed only as a sample framework.

Summary (2-4 pages)
Why was the research conducted
The methodology used in the research
The major constraints of the study
The major findings
Recommendations for action

Introduction and Statement of the Problem
Statement of the problem
Background of the problem
Importance of the study
Prior research and information on the subject
Outline of the rest of the report

Goals and Objectives
Purpose and objectives of the research
Questions to be answered by the research
Assumptions
Hypothesis
Constraints on implementing the study

Methodology
Methodology used in the research
Assumptions made in using this methodology
Research project staffing, administration and evaluation
Work Plan
Limitations of the research techniques used

Findings
Findings presented including tables and charts
Discussion of relevance and importance of findings

Recommendations for Action
Specific recommendation stemming from the study
Suggestions of specific steps to be taken in order to implement recommendations

Conclusions
Brief review of recommendations
Indications of areas which require further study

Bibliography

Appendices
Technical information
References

DISSEMINATION OF RESULTS

Only research which gets from you to the user can be implemented

The importance of effective information distribution cannot be overstated. The quality of your research and report will make no difference if the information never gets to the user.

Prior to deciding how to distribute research results you must establish dissemination objectives. Listed below are possible objectives which should be considered. More than one of them may apply to your project and you will probably have others as well.

1. To get research results out to the largest number of people interested in the research.
   a. at the Ministry of Health level
   b. at the province level
   c. at the local level
   d. within the international community concerned with health care
   e. some or all of the above
2. To insure that the research results are received by the intended recipient
3. To get the research results read and considered by the user
4. To get the results of your research considered when policy is being implemented.
5. To get research results used correctly, in affecting the delivery of health services.
6. Affecting the health status of individuals or a community as a result of the implementation of your research recommendations.
7. Alert donor agencies to the importance of the work you are doing, in an effort to assure continued funding.

Plans for dissemination should begin early in the research project. You should consider your dissemination objectives while deciding on a

topic and designing the research process. Final plans for dissemination will probably not begin until research results are known but certainly before any writing has begun. Early planning is important to insure that research results are written and presented in a way that is appropriate for your chosen research audience. For example, if you were presenting research results to persons within the Ministry of Health you would probably want to verbally present your results with a brief but sophisticated written report which details the policy implications of what is being proposed. However, if you were presenting results to a gathering of nurses working at a dispensary at the community level, you might also want to present results orally and in a written form, but with a more practice oriented focus. Information which you wish to have presented internationally can be published in journals or newsletters and you should include a complete description of the project with both the methodology and detailed findings.

It is important to remember that written presentation is only one of a number of ways to present research findings. Listed below are some of the methods which have been used in disseminating health services research.

1. National and International Newsletters

Quite a number of these exists with their circulation ranging from a few hundred to 25,000. Enclosed you will find a listing of some of the well known publications that may publish brief descriptions of health related research projects and results.

2. Conference and Meetings

Research results may be presented at local, national, regional or international meetings. You should seek such opportunities to present your results because verbal presentation is a very effective method of communication. Often there will be workshops, at conferences, which provide researchers a chance to interact with others interested in the same subject and receive useful comments and suggestions.

3. Journal Articles

If your information is something that would be of interest to a very large group of people, publishing in journals is a good way to reach a large audience. Most journals have a specific focus and it is important that you find one which publishes information about your specific topic. It is important to get information published in regional and national African journals as well as those that serve international readership.

4. Computer Data Bases

Many organizations (e.g. Columbia University in New York, IDRC in Canada) have research information on a computer and can make it available to anyone on request. Examples of computer data base are on the publications lists.

5. Bibliographies

Many organizations publish bibliographies which list research results which are available by particular topic. IDRC, for example, publishes a bibliography entitled Low Cost Health Care and Health Manpower Training, which contains a wealth of information on health services delivery and the information is available on request.

6. Radio

If research results indicate changes in personal health care practices should be made and your interest is in disseminating them on a community level then radio may be effective. The message transmitted should be simple and only contain one or two pieces of information. A great deal of preparation is required in designing a radio presentation, determining the number of radios in the area and who would listen to such a presentation.

7. Audio/Visual Presentations

If finances allow, tape recordings, slides, slide transparencies and short films are very helpful aids to oral presentation. They are by no means necessary and can be very expensive.

8. Poster/Pictures

If the message is simple, it can be transmitted in a poster to either a literate or non-literate audience. Great care must be taken in designing a poster to insure that the message is properly interpreted. Pictures should be pre-tested to insure that the message is correctly received. Trials done by an international organization showed that only 10% of the population correctly identified their picture of a fly.

9. Pamphlets/Books/Reprints

These traditional methods of communication may be quite effective if attempting to reach a literate audience. Again you should take great care in relaying written information to insure that it is attractive, interesting and appropriately distributed.

While each of these communication techniques has advantages, impediments can arise which make them ineffective. Mailing information both within a country and to another country can be both expensive and unreliable. A large international research organization surveyed its readership only to discover that in some countries the publications were never received. Printing costs can also be very high and care should be taken when selecting a printer and printing technique. Anything to be distributed throughout West and Central Africa or even internationally may need to be written in both French and English. This requires translation and two printings.

When distributing information internationally it is important to remember that there is very little coordination among international groups who disseminate information. For information to reach its destination you may need to send more than one copy, to different people within an organization. You should not just assume that information sent to one person will be seen by another person in the same agency.

Unfortunately it is very difficult to measure the effectiveness of your method of dissemination. Indications that you are having some success might include:

- the quantity of requests for your research
- observing your results being read or implemented
- feedback from readers in the form of thank-you letters, comments or criticism.

More formal methods of measuring success could include doing a survey of the people to whom your research results were sent. The questionaire

could explore a limited number of issues such as:

- whether the information was received
- if the information was useful
- whether a change in the type of presentation could be useful (e.g. more or less detail, different emphasis, etc.)

In addition questions concerning the readers occupation, education, current projects or future interest, how the results were used, could be asked. While a questionaire would be very expensive it is the most accurate technique for measuring the success of your implementation.

RESEARCH DISSEMINATION CHECKLIST

Content of the Research Report

- Was the research topic identified with the assistance of those who will use the results?
- Does the research have the support of the community under investigation and the users of the information (e.g. Does the village chief or Minister of Health support the research?) Are they also involved in the planning implementing and evaluating of the project?
- Have all of the appropirate audiences been considered?
- Is there a way for research users to give the researcher comments on utility and quality of the research?
- Has the researcher developed a good relationship with the groups being studied and been receptive to their needs and interests?
- Are the recommendations for action specific? Do they detail the steps to be taken to implement your suggestions? Are the costs of implementation given?
- Have you thanked/rewarded persons who have assisted and/or been participants in your research project?

Presentation of the Research Report

- Is the report written in direct, non-technical terms in language familiar to intended users? Does it have an appropirate level of detail?
- Are only necessary statistics and mathematics included?

- Is the report concise and as brief as possible without sacrificing necessary content?
- Is the presentation appealing, interesting and attractive? Are color, graphics, photos, drawings used where possible and appropriate?
- Is the presentation complete? Can the reader find all of the information needed in one place? Is useful, but very detailed information included in an appendix?
- Is the report written in a manner which will encourage action? Are the benefits of action highlighted?
- In the research report have you included the following:
    - summary
    - introduction and statement of the problem
    - goals and objectives
    - methodology
    - findings
    - recommendations for action
    - conclusions
    - appendices

Dissemination

- Has the objective of disseminating research results been determined?
- Has a method of dissemination been determined?
- Has the research audience been identified?
- Have you sent research to those who were involved in the study?