38. Research communication for RAP: Planning for optimal use of communication opportunities throughout the research process and effective use of findings

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This paper is an initial attempt to define operationally what the authors are calling "Research Communication." They argue strongly that much of the research done in the service of social development does not feed effectively into the policy and programme decision making arenas where scarce resources are being allocated and technical choices made. Using lists, examples and charts, they build a case for training in and application of principles taken from communication and journalism to the research process. This paper reflects two presentations by its joint authors at the conference which generated numerous questions and interest. Research Communication has since been developed into a principel tool of the USAID-supported global project on "Data for Decision Making in Health." Research Communication has also been developed into a training module in a new workshop called "RAP+." The first RAP+ workshop was held in Brasov, Romania in March 1992 with support from the UNU and UNICEF. The workshop aimed at orienting a group of 21 participants in qualitative research, research communication and the need to set problem-based research agendas. - Eds.

IF WE APPLY the principles and practices of the communication field to social research can we improve the process and the effects of research?

This paper introduces the concept and techniques of "Research Communication." Research communication is, beginning at the earliest stages of project planning, the deliberate, systematic use of communication principles to improve the design, collection, dissemination, use, and continued use of social research data.

Overlaying principles from the communication field onto the research process at the design stage forces the research to include planned resources and activities aimed both at generating demand for the results and at effectively communicating the results to all relevant audiences.

Those who work in research communication planning have several operating assumptions:

1. *Data don't stand alone:* Better data are needed for better decisions. But data do not stand alone. Without the "bookends" of systematic planning at the beginning and appropriate presentation and dissemination at the end, data will not be used optimally. Moreover, once used, the data are still alive to be reconfigured, synthesized, or re-analyzed for other decision-making needs.

2. *Know information needs:* Though varied and complex, the information needs of decision-makers can be better understood. This better understanding will improve data-gathering priorities and methodologies, data analysis, the media and focus of data presentation, and the identification of present and potential users.

3. *Data demand is unmet:* There is an unmet demand for good research data. Decision-makers, at all levels in all sectors, want better data. Decision-makers themselves, through feedback on their uses of data, can influence and motivate the professional work of those involved in data gathering and processing.

4. *Presentation improves relevance:* The demand for and use of data are strongly related to the perceived link of the information to issues that users see as important. The relevance of information can be improved through greater simplicity, clarity, comprehensiveness, and timeliness of the information brought to decision-makers. Thus, how you say it is as important as what is said.

5. *Data have many lives:* A single set of data can have many lives and live in a variety of forms for many different users and uses. Changes in data use can be anticipated in a dissemination plan that targets a widening audience of users in formal and informal health channels. The concept of data users is dynamic, not static. They move health-related information upward, laterally, and downward inside and outside of the sponsoring organization in the form of speeches, press releases, memos, books, articles, videotapes, audio-cassettes, exhibits, conferences, workshops, staff meetings, photographs, flip charts, and other forms.

6. *Tell how and why:* Better information is needed at all points along the development continuum - from the strategies of project design in high government agencies to the tactics of eliciting community support at the end of the chain. "Better" information is that which emphasizes the questions of "why" and "how" as well as the questions of "what" and "how many."

In this present volume, research communication aims specifically at improving the demand for better data in the health decision-making process to bring about changes that produce more efficient and effective health policy, implementation, and benefits.

Of course, social change occurs in the context of social systems. Accordingly, an appropriate change-strategy should be supported with a systemic information approach. Thus, at the earliest stage of research planning and budgeting, research communication is the deliberate, appropriate allocation of resources to improve information-getting, information-using, information-sharing, and information-response. It is a strategy designed to reveal and to strengthen the interrelationships among the many uses and users of a given data set and, in the process, to strengthen the links to other data sets.

Case study demonstrating planned research communication: The "contagion route" in Afghanistan[1]

Background

Drought plagued Afghanistan in the early 1970s, increasing water-borne diseases among children. After three years of a large UNICEF well-drilling programme, it was generally observed that the incidence and prevalence of water-carried diseases had not been affected much by the provision of potable water.

The UNICEF Regional Office designed a small, brief participatory observation study carried out by two female Afghan anthropologists. At two well sites, the women mingled daily with other local women, for whom the well was their source of water as well as social interaction. It was generally observed that the women did not clean their water jugs, and covered the jugs against insects with a rag that they also used to wash themselves.

After making friends, the anthropologists accompanied several women to their homes. There they found that the rag was also often used to clean the food preparation area. And breast-feeding mothers used the same rag to clean their breasts before offering their nipple to the baby. The water was uninfected at its source but became infected along the route from the well to the home to the baby.

Research communication planning

The findings of the small-scale rapid assessment could not be generalized to all other villages nationally. A larger, representative study was designed in order to make credible recommendations to the Ministry of Health and others. The design also included identification of audiences who would use the research as well as the uses they might make of the new information, where the "new information" might have implications for other services supporting the well-drilling programme:

POLICY. Users: Ministers of Health (MOM) and Public Works (MOPW) and UNICEF Country Representative. Uses: Authorize new, public information and disease monitoring services to complement the well-drilling programme; and modify drilling time schedules, area coverage, and target achievements.

FINANCE. Users: Ministers of Health and Finance (MOP) and UNICEF Representative. Uses: Approval of budget presentation justifying amount and priorities of funding for complementary information/monitoring services.

INSTITUTIONAL CAPABILITY. Users: MOH and MOPW decision-makers. Uses: Improve facilities, infrastructure, supplies, and equipment needed to add new complementary services to the drilling programme.

INSTITUTIONAL LINKAGES. Users: MOH and MOPW decision-makers and programme managers of central and regional offices. Uses: Inter-agency workshops and planning meetings to improve collaboration and coordination of village-level complementary services.

PERSONNEL. Users: MOH administrative and programming decision-makers and training directors in central and regional training centres. Uses: Revised job descriptions, training curriculum, field guidelines, performance evaluation criteria.

SERVICE DELIVERY. Users: MOH and MOPW programme managers and MOH clinic staff and village health visitors. Uses: Redesign water and sanitation program to highlight the potable water "contagion route" in all phases of introduction, installation, and self-maintenance of the wells and pumps in the community.

INFORMATION/COMMUNICATION. Users: MOH and Ministries of Information (MOI) and Education (MOE) decision-makers. Uses: Cooperation in design, testing, production, and distribution of new public and special-audience information/motivation materials in support of the provision of clean water.

COMMUNITIES/RECIPIENTS. Users: Community members - leaders, property owners, and families (fathers, mothers, older children), and school teachers. Uses: Household-level education about keeping clean water clean.

MONITORING/EVALUATION. Users: MOH clinic-to-regional offices; ultimately top MOH, MOPW, UNICEF policy-makers. Uses: Evaluate effectiveness of complementary educational services in support of clean water programmes, based on long-term monitoring and evaluation of young children's health status.

PROFESSIONAL DISSEMINATION. Users: Relevant Ministries of Government, UNICEF and other international agencies, NGOs, and private contractors and universities. Uses: multi-media dissemination through professional exchanges, conferences, workshops, meetings, journal articles, reports, speeches, memos, etc.

PUBLICITY. Users: Mass and specialty media, folk media. Uses: New public information through film, broadcast, print, and traditional media in support of the communication services complementing the well-drilling programme.

Of course, a general objective in planning the communication of any research is that the findings become part of the policy and programming environment; part of the "climate" for government and non-government activities. This is the diffusion of state-of-the-art substantive or methodological knowledge that is difficult to know or trace.

Elements of the research communication system

Research communication is increasingly being used to strengthen decision-making by planning the potential use of data and applying the results of such plans to all aspects of the information gathering and analysis system. Applied to research studies, particularly those conducted in support of specific health projects, communication planning is done as part of the advanced planning for the study. This planning concentrates on how most effectively to link data to their intended uses and users.

The planning applies proven organizational, interpersonal, and mass and specialty media models and techniques to each stage of data demand, collection, processing, presentation, dissemination, use, and new data demand. The cycle is continuous.

Communication tools which are included:

1. Audience segmentation,
2. Change-objective targeting,
3. Channel analysis,
4. Opportunities and constraints analysis,
5. Multiple formal and informal channel use,
6. Message credulity factors,
7. Learning theory applications,
8. Dynamic and portable presentation techniques,
9. Presenter training,
10. Mass media linkages, and others (see below).

As such, research communication is a system of tools both for increasing data demand and for improving the acceptance and usefulness of data - to help produce better-informed decisions on health. It tries to improve both the top-down information needs of decision-makers and bottom-up data use. It is not merely improved techniques of communicating research data. Rather, it is a systems approach that is shaped by the intended and potential uses and users of the data to be produced by a given project.

Used optimally, the system becomes an organized communication strategy that is driven by decision-makers' needs and demands for improved health information. It has these features:

DEMAND-DRIVEN. Centred initially around decision-makers who set the agenda of data gathering, the form in which analyses are made available, and the channels through which data flow.

PARTNERSHIP. Planned in advance of the project in a partnership of decision-makers, programme managers, research specialists, and communication professionals - working with the knowledge of community needs and demands.

LINE-ITEM. Budgeted as a formal part of the project.

SYNTHETIC. Based on as much relevant existing information as possible, to synthesize new data in the context of information needs and what is already known.

SEGMENTED. Keyed to specific types of primary and secondary audiences who are potential users and/or beneficiaries of the results (e.g., national leaders, training centre staff, community elders, mothers).

TARGETED. Aimed et achieving specific, behavioural "change objectives" for each audience - capitalizing on opportunities for change and overcoming obstacles to change.

ANTICIPATORY. Cast into a forward-looking dissemination plan that identifies primary and secondary audiences, and plans the most effective messages, schedules, and channels for reaching them.

MULTI-MEDIA. Disseminated through a comprehensive package of presentation devices (video, print, computer, etc.) for conveying technical data in, as much as possible, a non-technical, prescriptive format.

MULTI-SECTORAL. Designed to link health and other sectors in applying relevant parts of a common data base to decision-making where programming requires (or should require) converging resources from collaborating agencies.

CONTINUOUS. Planned to meet new data uses through on-going re-analyses of the same information base for the purpose of exploring initial relationships in greater depth or for addressing specific problems that arise with new questions stimulated by the initial findings.

EXPANSIVE. Planned to anticipate a widening pool of users as the data prove useful for decision-making, resource allocation, and benefits to recipients.[2]

Just as a health information system is planned with a view toward the uses and users of results, so is a communication system planned at the same time to improve the uses and expand the pool of capable users.

As decision-makers find the data understandable, specific to their needs, and useful for their decisions, their support will grow for continuing problem-specific re-analyses and further syntheses of data; on-going reporting and presentation, and new dissemination opportunities; new or unanticipated data uses; and expanding the population of data users.[3]

Using the research communication overlays to the optimal dissemination of data

Applying research communication as a management tool to improve health decision-making is neither unduly expensive nor time-consuming. Cost factors include an initial audit of data and decision-making flows, training design and implementation, and a hardware/software package based on existing equipment and needed upgrades. While measurement of causal impact is often difficult, process evaluation with RAP methods can generate assessments of considerable depth.

While all health data management and decision networks have different problems, each network has many of the same ingredients and a common structure. As a basis for assessing the strength of existing data or the need for new data, the research communication overlay is superimposed much like an audit on the research plan and asks a set of questions that connects:

1. The "top-down" data needed for project decision-making at different managerial levels with
2. The "bottom-up" feasibility of meeting managers' decision-making needs with existing or new data.

The relationships between managers' data needs and the feasibility of meeting those needs with new or existing data are represented by the matrix below. Decision-making questions are at the top of the matrix and information feasibility questions are at the bottom:

• *Management decision-making asks:* What information is needed, by whom, for what decision-making purpose, at what level or place, by what time, in what form, from what sources, with what reliability, through what method of presentation, and at what acceptable cost?

• *Information feasability asks:* What information can be provided, by whom, for what reporting purpose, at what level or place, in what period of time, in what form, from what sources, with what reliability, by what means of data gathering, and for what cost of collection and/or conversion?

In the columns of the matrix, this first of two communication overlays relates the needs of decision-makers (at any level, for various programme issues) to the availability of existing data to determine what usable data are accessible and what new data have to be collected.

As represented by the rows in the matrix, the programming issues span:

• Policy development and administrative and budgeting concerns;

• Infrastructural needs and issues of institutional capabilities and connections;

• Programme implementation, staff and training, field management, and production and distribution of services; and

• Monitoring and evaluating recipient effects, and dissemination of information to, and for use by, professional and lay audiences.

Overlay 1. Research Communication Planning

DATA NEEDS AND AVAILABILITY

AREAS OF DECISION USE	**What Data Needed**	**By Whom**	**For What Purpose**	**At what Place**	**In what Form**	**From What Source**	**What Reliability**	**How Best Present**	**At What Cost**
POLICY & PLANNING									
BUDGETING & PROCUREMENT									
DATA BASES									
ADMINISTRATION									
INSTITUTIONAL CAPABILITY									
INSTITUTIONAL LINKAGES									

PROGRAMMING MANAGEMENT									
PERSONNEL & TRAINING									
PRODUCTION & DISTRIBUTION									
SUPPLIES & EQUIPMENT									
RE-SUPPLY & MAINTENANCE									
COMMUNITY BENEFICIARIES									
REPORTING & EVALUATION									
PROFESSIONAL DISSEMINATION									
PUBLIC DISSEMINATION									
DATA AVAILABLE	**What Data Exist**	**Who Can Supply Data**	**For What Kind of Report**	**From What Place**	**In What Form**	**From What Source**	**What Reliability**	**How Report**	**At What Cost**

In considering systematically all issues of audiences, locations, timing, costs, data types, sources, collection, trustworthiness, uses, and presentation methods, the research communication overlay evaluates the capability of existing or new data to address decision-makers' needs and, in the process, ties the demand for data to the existing or potential supply of data.

For example, the matrix addresses these interrelated questions:

NEEDS. What data are needed? What data are available to meet the need?

USERS. Who needs the data? Who can either supply the existing data or collect new data?

USES. For what decision purpose are the data needed? What is the reporting purpose? And how does the first affect the second?

WHERE. At what level or place is the decision being made? At what level or place are the data available or accessible?

TIME. When are the data needed for decision-making? How long will it take to get the needed data?

FORM. In what form are data needed? In what form are they available or accessible?

SOURCE. From what sources are the data needed? From what sources can they be obtained?

USEFULNESS. How reliable - trustworthy - should the data be? How reliable are the existing or accessible data?

METHODS. How best can the data be presented? How best can they be collected and, if necessary, converted to usable form?

COST. What is the acceptable cost of presentation and dissemination? What is the acceptable cost of data collection and conversion?

By using this first overlay in advance of data collection, project directors can get a good idea of whether the cost of meeting decision-makers' data needs can be justified by the decision purpose. Often, data uses are renegotiated with data users in light of information needs that cannot be met at the expected or affordable level of resource expenditure (e.g., time, money, staff, training, travel, quality control, etc.)

The overlay also anticipates how the data can be most effectively packaged and presented to different audiences. This consideration of the dissemination of information is the most dynamic element in the equation. The timing, formats, and channels of communication vary over time (some anticipated and some not) as a data base takes on new character and significance as a result of new data analyses, improved syntheses, unanticipated data uses, and a widening pool of users.

Answering these questions is a first step toward assessing the feasibility of meeting decision-makers' and other audiences' needs. But it does not stop here. The information in the overlay is used at various times during data collection, analysis, and dissemination (even long after the study is over) along with other planning tools and evaluation questions and methods to continue to refine the data inquiry, sharpen the application of tools, and reach a widening pool of data users.

Training in research communication

We have to bring into partnership those who supply data and those who demand data. Building a relationship among decision-makers, programme officers, researchers, and communication specialists that is, in fact, organized around research data is an innovation for which training in communication principles and techniques is needed at all levels of those who need information and those who produce it.

Audiences for training

Some examples of communication research training for four key audiences are given below. The

examples given are not exclusive to any group. With adaptation, they are appropriate for all groups.

Policy-makers

For top decision-makers, training makes explicit the types of data, limitations on their uses, their form, their presentation context, and key factors that affect their trustworthiness.

In general, few policy-makers are trained in social research and few care about the details of research. However, we have found it useful to counsel policy-makers on the limitations of data from different research methods. We classify research methods by the extent to which the findings give conclusions for (describe or explain) a total population.

This is done by contrasting methods by their power and reach.

DATA POWER

Describe: *Less power*. To describe is to tell what exists, what has happened, or what is happening in terms of size, number, frequency, direction, or type of behaviour.

Explain: *Greater power*. To explain human behaviour is to tell "why" something happens or "how" it is caused - e.g., why some people act one way and others act another way. Information that explains people's behaviour is more difficult, time-consuming, and costly to get. Explaining behaviour means telling why behaviour is different or why it changes under different circumstances. This usually involves measuring the same or similar people at different points in time and under different conditions - e.g., before, during, and after a health intervention.

DATA REACH

Extrapolate: This is an inference about the total population that is (a) based on evidence from a sub-group that does not necessarily represent the population; or (b) based on evidence from a different population. So, an extrapolation is a conclusion (without evidence) about people and conditions that may be different from those studied.

Generalize: A generalization is an inference about the total population based on studying only a part of it. The evidence is from a sample - a small-scale replica of the larger population. So, a generalization is a conclusion (with evidence) about people and conditions similar to those studied, but which were not necessarily studied themselves.

These four information objectives give the following scheme for classifying RAP and other research methods:

	EXTRAPOLATE	**GENERALIZE**
DESCRIBE	What behaviour exists in a subgroup	What behaviour exists in the population
EXPLAIN	What causes behaviour in a subgroup	What causes behaviour in the population

The *top* of the schematic distinguishes methods that are known (generalize) or not known (extrapolate) to represent a larger population. The *left side* of the schematic distinguishes methods that do (explain) or do not (describe) measure changes in people's behaviour over time.

Thus, the next schematic contrasts methods by the types of data they produce:

	METHODS USED TO EXTRAPOLATE	**METHODS USED TO GENERALIZE**
METHODS USED TO DESCRIBE	Participant Observation	Census
	Non-Participant Observation	One-Time Survey
	Focus Group Discussion	Registration Systems
	Depth Interview	Aggregate Data
	Surrogates	Content Analysis
	Informants	
	Expert Panels	
	Projective Techniques	
	Non-Probability Survey	
	Pre-Testing	
	Specialty Surveys	
METHODS USED TO EXPLAIN	Critical Incidents	Controlled Field Experiments
	Case Studies	Multi-Time Surveys
	Pilots/Demonstrations	- Gross-Change
	Quasi-Experiments	- Net Change/Panel
	- Interrupted Time Series	Simulations
	- Non-Comparable Groups	Physical Lab Experiment
	Human Lab Experiments	

METHODS THAT EXTRAPOLATE DESCRIPTIONS (top left): These studies describe an unrepresentative part (sub-group) of the population. They are call "microstudies," "community studies," and "small-group studies." Many of these are RAP studies.

They tend to be unique to the researcher, impressionistic, uncontrolled, and only weakly quantitative. However, they can be unobtrusive and natural approaches to a problem, for which they can probe in-depth and produce data of high validity. They are used when we want "to

know a lot about a little" - developing ideas for further, larger-scale study; knowing the cultural context for behaviour; probing hidden meanings; revealing broad attitudes or detailing specific behavioural nuances.

METHODS THAT GENERALIZE DESCRIPTIONS (top right): These methods describe a whole population based on evidence from all of the people (census) or from a group that represents all of them (sample). The "sample survey" is the most commonly used of such methods. However, it is important that the line between "description' and "generalization" not be to thickly drawn as the processes are often linked as "stages" or "phases" in an overall research design. For example, a focus group discussions conducted with a small, unrespresentative sample are often used to develop an interview protocol which is then used with a to more representative group in order to obtain results that can be generalized to a population.

Another approach uses the survey as a prototype that tends to produce superficial data, is obtrusive and unnatural (a brief, artificial exchange of information), structures most questioning, and is often based on people's self-reporting. However, the survey can reach many people in many places with many questions on many topics in a relatively brief time and for low cost per-unit-of-reliable-information. And, because of its standardization, the survey can be replicated. Such methods (including content analysis and registration systems) are used when we want "timely (not rapid) generalizations." Qualitative methods, such as the focus group and various forms of observation often use survey data as a base from which greater detail, and greater depth into the "whys" behind the survey results are sought.

METHODS THAT EXTRAPOLATE EXPLANATIONS (bottom left): These methods are used to explain cause-and-effect relationships within sub-groups. They do not generalize to larger populations, but are unique sub-group studies that are used when we want to know what causes behaviour in a subgroup, or when we want to know "a lot about why some people change as they do." Thus, they are best used when the focus is on change in a well-defined, intact sub-group, when time is given to in-depth study, and when equivalent groups can be compared for changes.

They are usually intensive, on-site studies of change. The case study is the prototype: A witness before, during, and after a health intervention. Case studies often use comparison groups to see differences when a health intervention is introduced to one group and not to another. They are often impressionistic and subjective, and the presence of the researcher(s) may cause effects. However, they tend more toward immersion into, than invasion of, the study culture, thus providing valuable insight. They often combined formal and informal, individual and group methods. And they are useful for training.

METHODS THAT GENERALIZE EXPLANATIONS (bottom right): In theory, these are the most powerful methods for explaining behaviour ("What causes what, and why?") in a large population. They are like physical-science laboratory experiments (with experimental and control groups) adapted to social settings.

In practice, they have been the most disappointing forms of development research. They usually involve heavy investments of time, money, and other resources. But we use them when we want

to know what causes behaviour in the population; or when we want to know "the conditions under which many people change."

The controlled field experiment is the prototype. It is vulnerable to unknown, uncontrolled forces of "contamination." It assumes that we can control reality in a very disorderly world, and, thus, requires an exceptionally strong theoretical and empirical base. Such studies require great rigor - sometimes seizing control of the real world with unrealistic assumptions that prevent natural events from influencing the study groups. However, on the positive side, measurement is controlled and can be generalized, producing our most powerful quantitative conclusions about which causes produce which effects.

Training in research communication

Managers

For programme managers, training helps them to better plan, negotiate, and monitor studies; to improve their ability to analyze data; and to prepare more persuasive, prescriptive reports and presentations. Like policy-makers, managers also need training in data limitations. But a key area in which managers particularly need training - and one to which they respond readily - is in analysis of programming opportunities and constraints.

Researchers

For researchers, training gives a framework for planning and applying communication principles and dissemination techniques that brings communication into the entire process of conducting a study and encourages audiences to use data rather than leaving them on the bookshelf.

Often, social science researchers are the most resistant audience to the plea that they make their data more understandable and usable for the lay person. Research communication frequently serves as a "translator" of the technical to the lay. Unhappily, some researchers seem to need to wrap themselves in a cloak of mystique, preferring appearance to acceptance.

So long as the written document remains the dominant mode of research reporting, training for researchers will surround five assumptions for improving the usefulness of technical information:

IMPLICATIONS. In a 1988 evaluation of 44 UNICEF survey reports, we found that 3 percent of all text was devoted to implications and recommendations (and most reports used these two terms interchangeably). The other 97 percent was given over to details of the survey methodology, recitation of findings, and statistical tables. UNICEF-sponsored research reports are no better and no worse than other sponsored research reports.[4]

In contracting studies, we encourage policy-makers and managers to write into the contract the requirement that the final report must be submitted in the form of a set of implications for actions to take. This requires that the report be organized around the action implications rather than

around the methodology or the findings. Decision-makers are more interested in "what to do" than in "what was found," although they need to know enough of the latter to trust the former.

Organizing reports around the implications does not obscure findings, but subordinates them to the actions they suggest. For credibility, enough findings are reported with each implication to justify it as the "voice of the people" rather than our personal opinion.

Recalling the "Contagion Route" in Afghanistan, here is a fictional example of, first, a traditional research report table of contents as opposed to, second, a research communicator's report:

An example of an outline from a traditional research report might look as follows in Table 1:

Table 1. ***Infant Mortality in Afghanistan***

EXECUTIVE SUMMARY

Chapter:

1. Background and Purpose
2. History of Water Interventions
3. Methodology
4. Findings at the Well
5. Findings between the Well and Home
6. Findings in the Home
7. Conclusions and Implications.

An outline from a research report following research communication principles would be different, as seen in Table 2:

Table 2. ***Potable Water does not Save Afghan Infants: Following the "Contagion Route" from the Well to the Child***

METHODS SUMMARY: Time, Place, Population, Method, Sponsor, Error

EXECUTIVE SUMMARY

Chapter:

1. Mothers are Unwitting Disease Carriers

• Summary of Implications
• Findings
• Conclusions
• What to Do

2. Mothers' Practices Improve With Role-Playing

• Summary of Implications
• Findings
• Conclusions
• What to Do

3. Designing a Motivation Programme That Works

• Summary of Implications
• Findings
• Conclusions
• What to Do

4. Ensuring Safety from the Well to Well-being

• Summary of Implications
• Findings
• Conclusions
• What to Do

In the traditional report, the Executive Summary is almost always a summary of findings. In the second example, the Executive Summary is a summary of step-by-step implications. Moreover, each chapter is headed by a 1-2 page Summary of Implications of what actions to take. The title, "Potable Water Does Not Save Afghan Infants," tries to make the point that titles are not unlike "headlines." They need not be biased but they still generate interest. Just as headlines sell newspapers, headings can "sell" reports.

JOURNALISTIC. The outline above suggests a second rule of research communication: write what ordinary people can understand ("If the Smiths can get it, the Smythes will get it, too."). In other words, write journalistically, in "popular" language. For some researchers, this rule is a threatening "vulgarization" of their argot. Not only do we want lay people to understand what we are suggesting they do, but adaptation of the research data is much easier as our presentations go from audience to audience, from policy-makers to managers to villagers. Also, people learn better by building on what they already know, than by adding new information (what we technicians know) to what they know. Simple, clear writing aids the knowledge-building process.

Moreover, rather than burdening and lecturing the reader in the nuances of research methodology, we detail our methods in an attachment, and usually summarize the methodology in a small box on page 1 of the report to answer the reader's natural questions of when the study was done, where, of which people, by what method, who was the sponsor (implicitly, a question of credibility), and how trustworthy are the findings - e.g., plus or minus 4 percent error range due to sampling.

THEMATIC. The report example above also suggests a third rule: write the report thematically, more like a composition than a dictionary. People think in related themes, not necessarily in the sequence of design, implementation, and analysis of a study. This means that the data are presented in the sequence of actions to take, not reported in the same sequence as they were found (i.e., the sequence of questionnaire items). Action implications are better understood if they are reported in the Step 1, Step 2, Step 3 ... series in which they would be carried out.

VISUALS/LEARNING AIDS. Another finding of the UNICEF evaluation noted above was that three of every ten study reports used visual aids (graphs, maps, photos, schematics, illustrations, etc.) to help the reader understand the data.5 In this age of dynamic, explicit computer graphics, text-only reporting is unacceptable if our purpose is to be understood. Data alone are rather sterile. Social scientists, however, are responsible for very few health program decisions about objectives, budgets, time schedules, administration, logistics, information systems, and other aspects of programming. As policy-makers and managers are our key audiences (at least initially), we must take pains to ensure their understanding. Graphically, visuals help understanding, if only because of the relief they give the reader. Verbally, anecdotes and verbatim quotes also aid understanding by enlivening and enriching the data. People learn better by examples than by abstractions.

Another aid to easy reading is the use of colour. If coloured graphics are too expensive, coloured pages are not. The Executive Summary is more distinctive if it is printed on coloured pages (say, blue). Additionally, each chapter's Summary of Implications should be on coloured paper (say, yellow) to distinguish it from the white-page chapter text.

PRODUCT LINE. Another contract stipulation we urge upon policy-makers is that all research studies be reported in six separate documents, which add no real burden on the researcher:

• *Briefing Paper*: 1-2 page summary of implications and key supporting findings for top policy-makers - ministers, permanent secretaries. Give enough information to enable them to address national and international leaders and to instruct staff to follow up, if interest is provoked.

• *Research Note*: 3-5 page expanded summary of implications and key supporting findings for health and other (non-health) programme managers. Give enough information to alert them to the study, its implications, and availability. And also indicate inter-sectoral actions needed (e.g., MOH, MOPW, MOI).

• *Research Memo*: 4-7 page summary for health managers and practitioners rounding out the implications and supporting findings, providing enough information for on-site programme changes.

• *Talking Points*: 1-3 page list of implications and key supporting findings for leaders and practitioners at any level to address a lay audience.

• *Report*: Unlimited pages, full report with all details. Mainly for reference material and for distribution to a very select audience of health researchers.

• *Press Release*: 2-4 page summary of implications and key supporting findings written thematically and with enough information on the methods used to enable the reporter/ commentator to competently describe the study without requiring other information.

Communication Professionals

For specialists planning the communication of study data, training is needed regarding problems of programme policy, planning, administration, logistics, field management, production and distribution, target populations, and research and evaluation objectives and measurements. Familiarity with programming is essential to effective communication of its success or failure.

For research purists, it is probably a bit galling to say that the effective communication of research information is a marketing problem. However, like a commercial product, data have to attract and hold attention before they are "bought" by the policy-maker. And they have to prove useful ("customer satisfaction") to be re-used. The following are a few examples of how research data have been effectively and attractively packaged to grab and hold high officials' attention:

CAMCORDERS. The USAID-funded Learning Technologies for Basic Education Project (LearnTech) brings innovative technologies for teaching and learning in developing countries.[6] Interactive Radio Instruction (IRI) is the most widely used and most fully documented.[6] While the effectiveness of IRI is clear, its is blurred in the eyes of the international donor community despite numerous evaluations and proven effectiveness. To overcome donor biases against radio instruction and to dramatize the IRI difference, the LearnTech project director took his camcorder unannounced into a Bolivian classroom and recorded the lively, spontaneous, cheerful interactions between the students and the radio "teacher." The 10-minute "Fun With Numbers" video leaves no doubt of the difference and the impact of IRI on student and teacher motivation, interest, and learning. Without a single statistic, the video evaluation "proves" the effectiveness of the technology.

FILM AND PHOTOS. Years ago in India, the UNICEF Project Support Communication (PSC) unit and the Regional Planning Service effectively dramatized the breakdown of health service delivery to rural villages. One project was documented by film and another by photographs.

Film: Survey interviews with Block officials and with villagers found great disparities in perceptions of the quality, coverage, and use of public health clinic services available to the villages. Block health officials generally saw clinic services as highly efficient, effective, and widely accepted and used by their rural clients. Those mothers who used the clinics often had bitter complaints about staff and services. Many more did not use the clinics than did. Moreover, ignorance of services was high and perceptions tended to be negative. To document the differences in perceptions, the PSC team interviewed several officials and several mothers, recording on film their answers to the same questions. Then, they produced a "split screen" film that showed the face of one official and of one mother at the same time. The face of the mother was frozen on one side of the film while the official answered a question about, say, mothers' use of the clinics. Then, the face of the official was frozen on the other side as the mother answered the same question - usually with a widely discrepant viewpoint. The voice-over gave the

different percentages of answers among all officials and all mothers for each question. The differences in perceptions could never have been as compelling in a written research report.

Photographs: In another study, a physical, on-site inventory of rural clinics found great differences in the quantity and quality of medical staff, supplies, and equipment that were supposed to be in place and those that were actually in place. The PSC team created a photo album juxtaposing the ideal and the real. Thus, one page showed a photo of, for example, the intended number of clinic staff and the opposite page was a photo of the actual number of doctors, nurses, technicians, and support staff. Each photo was captioned with the percentage of actual conditions found: percentage of nonworking refrigerators, disabled vehicles, depleted supply cabinets, empty or dated compound jars, non-sterilized needles, and the like. Although not animated, the differences in the standard of services intended and the standard of services realized was quickly and explicitly understood by MOH policy-makers.

Although video, film, and photographs amount to no more than anecdotal data, their power can be so compelling, so complete, that they tend to produce generalizations. Where data can produce generalizations, the use of brief captions with voice-over or photos is much more effective than lengthy text in a report.

Training in source and audience segmentation

Research communication includes training in several other techniques, showing how to improve the supply of and demand for better data for decision-making. In particular, two key needs for communication research training are source and audience segmentation and use of the communication planning overlays.

SOURCE SEGMENTATION. Overlay 2 identifies the primary and secondary sources of information for both data collection and for discussions of the theory and methodology of the intended study. Source segmentation may include public and private, non-profit and for-profit, institutions and individuals who can provide social, economic, geographic, environmental, medical, demographic, and other qualitative and quantitative information in the form of articles, reports, management records, registration systems, maps, statistics, photographs, computer graphics, and other written and visual sources. Additionally, other information may be gathered personally from individual interviews, groups, experts, and other informants.

AUDIENCE SEGMENTATION. Overlay 3 identifies the primary and secondary audiences who might benefit from the information, its analysis, and its interpretation. For example, villagers or others who are being studied may well be chosen as a relevant audience for much of the information learned. So might service providers, programme managers at various levels, policymakers and advocates, including donors. Other audience segments include educators and researchers - those who develop, choose, and work with various methodologies of data gathering and analysis. It is in terms of these audiences that the "product line" described previously is developed.

Training in research communication planning

Application of research communication depends on a working relationship between those who fund or plan to use the data and research results and those who design information systems, research studies, and data gathering.

These Research Communication Planning Overlays provide examples of how planning might be done. A study evaluating a generalized health intervention at community level is used. The planning process includes projecting possible audiences from among those for whom the study will gather information (sources) and those who might use the study's findings. During the planning process, consideration should be given to effective forms and techniques which will best present useful information and generate use by each source and audience segment. To promote the effective communication of data, these matrices can also be used to assess needs for equipment, materials, training, resources and time requirements for effective research communication.

Overlay 2. ***Research Communication Planning***

PLANNING FOR COMMUNICATION WITH DATA SOURCES DURING DATA GATHERING

DATA SOURCES AS AUDIENCES	Communication goals (obtaining and giving information	Mode for gathering information	Information data sources can use	Techniques for sharing information with sources	Communication budget (extra for communication)	Time required to schedule communication activities
LIBRARIANS/ DATA SPECIALISTS	gather data - have results in library and data banks	literature review, data bank search	topic of study, how to obtain results	discuss context of study, send reports/publications	reproduction, distribution data base entry	minimal
STATE LEVEL OFFICES	get study authorization - arrange feedback on results	interviews, notes	study related strategies	discussion, other reports, send report, feedback visits/discussions	reproduction, visit costs	added time for discussions and feedback visits
OFFICERS AT PROJECT SITES	facilitate data gathering - inform of study's relevance	observation interviews at site, video at site	study objectives, how to obtain results	discuss study's goals, arrange for feedback (visit, report, video)	equipment costs, report and video reproduction, visit costs	added time for discussion, return visits schedule
COMMUNI	facilitate	focus	study	discussion	design and	added time

TY LEVEL LEADERS	data gathering, obtain data - explain study's relevance, present findings and implications to community	groups, interviews, video, informal structured activities	related issues, current services issues informal education materials, village findings, overall study findings in context of actions	backed by simple materials, handouts for community education, community level monitoring models, immediate discussion of findings, later visits with study implications for action	production of community materials, model and display costs, costs of materials for village presentation of results	during data gathering and for return community visits
COMMUNITY MEN, WOMEN, CHILDREN	obtain data - educate and provide information on study-related problems, later discuss results and implications	observation, focus groups, interviews, informal video	non-formal educational information related to study topic, implications of village-level findings, implications of overall findings	non-formal education materials, ecuational messages by research team, village-level discussion of implications of village data and methods, discussions on overall findings	cost of materials, design and reproduction, cost of researcher training in non-formal education, presentation materials and equipment	added time for educational materials before data gathering, added time during data gathering, feedback/implications visits

Overlay 3. ***Research Communication Planning***

SEGMENTING AUDIENCES AND PLANNING FOR COMMUNICATION OF RESEARCH METHODS AND RESULTS

AUDIENCES (Users of data)	Research communication goals (examples	Planned mode for effective communic	Planned supporting techniques and	Planned equipment and materials	Additional communication training	Additional budget for communication	Added time for communication

	only)	ation	materials	needed for communication	needed		
COMMUNITY FAMILIES INDIVIDUALS	individual, group behaviour change, project participation	groups discussion of findings and implications	flip chart with printed results, blank chart for discussion, video	printed flip charts, blank flip charts, etc. video camcorder, TV	effective community communication use of video	materials production, video edit/copying	community level visits
HEALTH CENTRES STAFF	improved service delivery, health education	presentation of report, discussion of implications and action	flip chart showing results, video of alternatives, discussion	camcorder, videocassette, flip chart	training on community level implication of results	equipment & personnel costs	centre visits or at regional gathering
COMMUNITY TEACHERS	better support to preventive health education	presentation of report, discussion of implications for community school	flip chart showing results, video of alternatives, discussion	camcorder, videocassette, flip chart	training on implication of results on schools	equipment, materials, personnel costs	centre visits or at regional gathering
STATE HEALTH AND EDUCATION OFFICIALS	increase project resources, assist with monitoring	formal presentation of report followed by discussion	written presentation, field notes, flip chart, field videos, photos	camcorder, report copies, video, photos, non-formal education materials	training on presentation techniques	equipment & personnel costs	1 /2 day per state or at national gathering
IEC MATERIALS PRODUCERS	better IEC materials	discussions	video, slides, community notes on IEC materials	camcorder, flip chart, report copies	skills in IEC	minimal	based on future needs and IEC lessons learned
NATIONAL DONORS	increased resources	presentation of report, discussion at	transparencies, slides, video	camcorder, flip chart, copies, graphics	training on presentation techniques	personnel & equipment costs	presentation matched to policy/ decisions

		conferences					cycle
AUDIENCES (Users of data)	Research communication goals (examples only)	Planned mode for effective communication	Planned supporting techniques and materials	Planned equipment and materials needed for communication	Additional communication training needed	Additional budget for communication	Added time for communication
EXTERNAL DONORS	increase resources, help with advocacy	presentation of report, at meetings and conferences	transparencies, slides, video	vcr, copies	presentation techniques training	personnel & equipment	presentation matched to policy/ decision cycle
RESEARCH COMMUNITY	better methods, increased organizational and individual researcher credibility	publication, informal discussions, correspondence	results article, work-in-progress notice, methods article, field notes, video interviews	minimal	effective research report writing, identifying effective publications	editing, translation, correspondence costs	considerable for peer review articles, less time for informal piece
UNIVERSITIES	greater participation, better research agenda	course module based on study or method	module, video, case study, field notes, etc.	report, copies of video, notes etc.	effective teaching	personnel & equipment	length of module times number of presentations
PUBLIC(S)	better support for projects, behaviour change, participation	conference presentation, mass media interviews and articles	report, presentation, video, transparencies, slides, etc.	vcr, copies, overhead projector, display	presentation techniques	personnel & equipment	seminar schedule, multi-day exhibition/ conference

Matrices such as these are used in training. But they also can show that research communication planning provides a model for training and dissemination and simultaneously identifies and addresses decisions in planning data gathering and other steps of the research cycle. Such

decisions can be weighted to set priorities for effective communication with particular decision-making audiences such as programme managers or policy makers. Priority could also be given to providing feedback to those who can improve other parts of the research system. Thus, an initial focus on decision makers can lead to similar tools being used to provide other researchers with better information on the data collection methods used.

Such analysis allows planning for each information source and audience regarding:

COMMUNICATION MODE. Which are the best methods of collecting (efficiency) and of presenting (effectiveness) the needed information?

TECHNIQUES. Which are the most appropriate communication techniques for recording and for conveying the information to each audience?

SUPPORT. For recording and for presenting the information, what types of trained personnel will be needed and what equipment, supplies, materials, and maintenance will be needed?

PRESENTATION/DISSEMINATION. Training What kinds of communication training will be needed? How long will the training take and how much will it cost?

COSTS. What is the cost of a complete or partial research communication overlay? If only partial communication planning is attempted, what are the priority sources/audiences and related communication concerns?

TIMING. Will adding a specific research communication component affect the overall timing of a study? Are there deadlines or existing schedules that need to be taken into consideration for the study results to have maximum impact on decisions?

This planning should normally be done in collaboration with those who are trying to improve forms and flows of data moving upward and outward. It provides a flexible plan for which changes are to be expected as the data-gathering and data-use process is monitored.

The goal of research communication training both for those who make decisions on research plans and for those who do data gathering is to help them recognize the value of overlaying a strategic communication framework on their activities and requests. This will help reduce ad hoc decisions on communication at critical points in the data gathering and presentation process. In addition, the use of matrices results in a more systematic approach to efforts to improve the effective use of research by looking at the appropriateness of data for different audiences arrayed along the data-use continuum from decision-maker to beneficiary.

Evaluating research communication

As research communication is an innovation for many health programme directors, we need to begin systematic evaluation and documentation of its benefits. For example, as planned for the USAID Data for Decision-Making Project,[7] those evaluating the contribution of research

communication as a tool for improving the use of data should ask questions of their colleagues and country health officials such as these:

• How, if at all, did research communication planning benefit your work?

• In what ways should the research communication plan be improved to be more systematic and thorough, thus more useful to you?

• How can the research communication plan be improved so that you can have greater impact on decisions concerning policy development and project planning?

• How can the plan be improved to increase the relevance and usefulness of what you learn from the communities in which you work?

• How can the plan help you be better at involving the communities you serve and informing them of things you learned from and about them?

• How can the plan be improved so that you can be more effective with your donors and funders?

• How can the plan be improved to help you to communicate your methodological developments more effectively to your professional colleagues?

Such questions should be asked at the stage when RAPs and other studies are being planned. Basic research communication principles and techniques should be used as a framework for developing answers. If this is done the cost effectiveness of most investigations is almost guaranteed to improve.

Summary

Research communication provides a communication-focused analysis at the earliest stages of research planning. The analysis identifies communication-related gaps in areas such as training design, audience identification, decision-maker/community linkage, timing, potential use of media, and presentation formats, as well as techniques for decision-makers to motivate those who collect, analyze, and present data to better meet their needs.

We submit that, through training in research communication planning, those who fund, carry out, and use research data will be better served. In addition, with more systematic consideration of the optimal use of research, most methodologies such as RAP will improve.

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Endnotes

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2 Intercultural Communication, Inc., *The Context for Using Rapid, Low-Cost Methods for Monitoring and Evaluating Health Services Delivery*, Washington, D.C., November 1986, pp. 11-24 (for A.I.D. Centre for Development Information and Evaluation.

3 Intercultural Communication, Inc., UNICEF KAP Studies, New York: UNICEF Office of Evaluation and Office of Programme Communication, September 1988, p. 3

4 Intercultural Communication, Inc., UNICEF KAP Studies, New York: UNICEF Office of Evaluation and Office of Programme Communication, September 1988, p. 24.

5 Intercultural Communication, Inc., UNICEF KAP Studies, New York: UNICEF Office of Evaluation and Office of Programme Communication, September 1988, p. 23.

6 Materials available from Education Development Center, *Learn Tech: Learning Technologies for Basic Education*, Newton, Massachusetts, 1991.

7 Harvard University School of Public Health,. *Data For Decision-Making for Health*, project proposal to the U.S. Agency for International Development (A.I.D., Boston, Massachusetts: August 1991.

COMMENTS ON THE USE OF VIDEOTECHNIQUE

COMMENT:

Video is a powerful tool. Distortion can be created because people are aware of being observed.

COMMENT:

The researcher is the most obtrusive aspect of his research and he has the greatest potential to distort the normal life of the community. The key is the ability to establish trust and rapport. With the video, it is not necessary to set up a shot. One way to create comfort is to let the children play with the VCR. People must know that they are being recorded.

COMMENT:

In Turkey, when teams went to rural areas with video cameras, their acceptance was dependent on the trust they wielded. Some researchers have a rapport and some do not. One important aspect of the new camcorders is that the researcher needs little technical training in their use.

QUESTION:

How do we communicate with the community? What are the experiences of establishing a communications system?

ANSWER:

We must make communication explicit. Additionally, RAP requires honesty and sensitivity to the pace of the community. We must feed back the results to the community. The VCR can be data from one community to another. It can also bring the discussion of policy-makers back down to the community. It should be a two-way communications link between mass-media and interpersonal.

QUESTION:

There is an issue of cost. The VCR is effective but to what extent is it feasible?

ANSWER:

Plans for purchase and use of the VCR and other equipment and supplies should be made explicit at the beginning planning stages. You can get 4 VCRs for the cost of one consultant's plane ticket. This is simply one tool. Explicit planning of all tools is needed.

COMMENT:

The unobtrusiveness of the VCR is surprising but true. Is there an opportunity to get decision-makers into the field incognito via RAP? In India, it has been successful. There is a tendency to de-emphasize lateral communication. This should be rectified.

COMMENT:

We need to plan. It is necessary to deal with the implicit in an explicit way.