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THE CONTEXT FOR USING RAPID, LOW-COST METHODS FOR MONITORING AND EVALUATING HEALTH SERVICES DELIVERY

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TABLE OF CONTENTS

I. BACKGROUND: Page:

A. PURPOSE:
1. Rapid, Low-Cost Methods (RLMs)..... 1
2. Social Marketing And Community-based Distribution..... 1 2

B. INFORMATION AS A BASIS FOR DECISIONS:
1. Decisions Before Projects..... 4
2. Decisions During Projects..... 5
3. Decisions "After" Projects..... 6

II. UNDERSTANDING RLMs

A. THE CONTEXT FOR RLMs 7

B. CHARACTERISTICS OF RLMs 8

C. IDENTIFYING RLMs 11
1. Data Reach..... 11
2. Use of Data..... 12
3. Scheme For Classifying M&E Methods..... 12

D. COMPARING M&E METHODS BY THE DATA THEY PRODUCE
1. Methods That Extrapolate Descriptions..... 14
1. Methods That Generalize Descriptions..... 19
1. Methods That Extrapolate Explanations..... 20
1. Methods That Generalize Descriptions..... 22

III. USING RLMs

A. STUDY PURPOSE 25
1. Research..... 25
2. Planning..... 25
3. Feedback..... 25

B. WHEN TO USE RLMs: 26

B. CHECKLIST OF WHEN TO USE RLMs 27

C. TRADE-OFFS IN USING RLMS 29
1. Special Considerations..... 29
2. Questions that RLMs Address..... 31
3. Summary..... 32

APPENDIX

EXAMPLES OF RLMs IN HEALTH PROGRAMMING

1. ORT Social Marketing A-1
2. Integrated Services and Community-Based Distribution A-8

ACRONYMS

CBD	--	Community-Based Distribution
FP	--	Family Planning
GOH	--	Host Country Government (Government of ...)
IE&C	--	Information, Education and Communication
M&E	--	Monitoring and Evaluation
MCH	--	Maternal-Child Health
MOH	--	Ministry of Health
PHC	--	Primary Health Care/Primary Health Clinic
SOCM	--	Social Marketing
SMOH	--	State Ministry of Health
TA	--	Technical Assistance
VHV	--	Village Health Volunteer
VHW	--	Village Health Worker

RAPID, LOW-COST METHODS

FOR MONITORING AND EVALUATING HEALTH SERVICES DELIVERY

I. BACKGROUND

A. PURPOSE:

This paper is for USAID project managers who need quick, reliable information for decisions on project delivery and impact.

While useful in other sectors, the paper focuses on monitoring and evaluation of health services.

The paper does not try to teach managers "how" to conduct project monitoring and evaluation. Rather, it reviews certain methods to see which are appropriate for different kinds of project decisions.

The purpose is to help health project managers in (1) defining information needs; (2) designing studies; (3) writing scopes of work; (4) monitoring contractor performance; and (5) reviewing other AID and related projects.

1. Rapid, Low-Cost Methods:

Managers need information that helps them make better decisions on the design, progress, and impact of health projects. Often this requires information collected in the field on beneficiary populations. Such information traditionally has been gathered through large-scale surveys and other formal methods.

While sometimes useful, these traditional methods are also costly and time-consuming. And, they frequently do not provide the information needed for decision-making.

So, instead of focusing on these large-scale field methods, our focus is on monitoring and evaluation (M&E) methods that can help decision-makers by providing reliable data, in the time needed, and at affordable costs.

Such methods are variously called "Rapid Appraisal," "Rapid Assessment," and "Rapid Reconnaissance" -- as one thing they have in common is speed. They are also called "Quick-Query" methods. But we will call them "RLMs," as this is the common acronym used in AID.

Sometimes called "quick and dirty," these rapid, low-cost methods (RLMs) may be quick but do not have to be dirty. None is new. All have been tested through repeated use in the social sciences.

But their increased use in AID has stirred interest, because of the novel and exciting ways in which rapid, low-cost methods are being adapted to short-term field problems. And also because of their promise for breaking our past reliance on complex, costly, and often unproductive methodologies.

2. Social Marketing and Community-based Distribution:

This paper also focuses on two health programming approaches that differ from conventional, stationary-service delivery systems. These are Social Marketing and Community-based Distribution systems.

a. Social Marketing: Social marketing (SOCM) is more than just a commercial activity. It is more than advertising. And more than simply use of the mass media.

Social marketing is a communication strategy. It involves the planning, management, delivery, and evaluation of public information-cum-service campaigns designed to increase acceptance of social products, practices, or ideas among certain target groups.

Compared with traditional program communication, SOCM is more attuned to smoothing the transaction between the consumer and the supplier. SOCM uses all effective forms of communication, including commercial media and incentives. Such communication tends to be comprehensive and often unconventional: using any combination of vertical and horizontal communication and personal, specialized, or mass media best suited to a problem.

SOCM can be useful in any area of health programming in which IEC (Information-Education-Communication) activities and sale or distribution of materials are involved: for example, oral rehydration salts, growth monitoring charts, immunizations, iron/folic acid tablets, vitamin tablets, soap, insecticides, vegetable seeds.

And SOCM campaigns can be used to motivate public support of good health concepts or public and private services: for example, use of PHC centers, cleanliness in the home, latrine construction, cooperation with the village health worker, breastfeeding, child-spacing.

To-date, however, the archetypal AID-funded SOCM project has been in family planning and, especially, contraceptive distribution. Key ingredients of AID social marketing projects include:

- Institutional development through creation or promotion of a government agency, local firm, or non-proft organization -- e.g., creating a semi-autonomous, non-profit Contraceptive Marketing Organization to manage the Government's social marketing program.

- Encouraging private sector growth through reliance on private firms for supplies and distribution -- e.g., subsidizing wholesalers' purchases to make wholesaling profitable.

- Multi-media campaigns -- involving mass media and specialized media advertising, publicity, and audience incentives; IEC materials and IEC training of trainers and field staff.

- Other on-going information actitivies such as a management information systems: pre-programming market/media/message research; continuing operations research, and follow-up evaluation.

b. Community-based Distribution: Community-based distribution (CBD) systems train community members as paraprofessionals to supplement local delivery of services. Imaginative means of extending the reach of government health services have included using paid and volunteer Village Health Workers (VHWs) to:

- Monitor community participation -- check that mothers are keeping their clinic appointments; monitor weekly records of babies' height and weight measurements.

- Elicit community support -- induce volunteers to dig latrine pits; encourage mothers to plant kitchen gardens.

- Deliver basic services -- distribute birth control calendars; assist the midwife as a birth attendant.

- Provide information and training -- distribute and help mothers read pamphlets; provide refresher training in ORT procedures.

Unlike social marketing, CBD programming has not concentrated mainly in family planning. Rather, multi-purpose health volunteers have been built into many types of health projects, extending government services that otherwise might not reach the village -- e.g., basic medical treatment, ORT and diarrhea control, malaria treatment, disease control, sanitation, child nutrition and surveillance, birth delivery, reproductive health, and referrals.

Some advantages of CBD systems are: reduced costs of community contact: easier adaptation of services to local idioms, values, and practices: and great increases in man/woman-power available to carry services directly into the home.

For monitoring and evaluation, VHWs can be trained to record and report vital data on project acceptance, characteristics of participants, obstacles and sources of support or opposition, and reasons for the success or failure of communication.

B. INFORMATION AS A BASIS FOR DECISIONS:

In developing countries, the specifics of health programming--the best means of delivery, the strongest combination of services, and their most durable effects--are largely unknown. Health managers need information to make decisions about the "most effective and most rational" location of investments, services, and modes of delivery to achieve desired results. This suggests knowing the relationships between:

- The quantity, quality, timing, and cost of program investments and other inputs; as they will produce:
- The quantity, quality, timing, and cost of health service outputs; as they will achieve:
- The types and levels of service outcomes, which vary by type of service, location, and nature of recipients; as they have implication for:
- The progression of individual outcomes over time to become global impacts on groups, institutions, and communities.

Most managers want to base their decisions on something more than intuition, and ask highly involved empirical questions at the earliest stage of project planning:

> What kinds of inputs (How much? What type? When? At what cost?) will produce what kinds of outputs (In what number? At what specifications? By what time? With what other costs? Where? For whom?) in order to achieve which short- and long-term effects (What changes in individual, institutional, or community health standards, practices, and opportunities are intended?)?

The monitoring and evaluation (M&E) plan for any project is based on these kinds of questions. The research tools of M&E are our most reliable means for getting information that provides usable answers.

Below are the kinds of decisions that USAID health project managers typically have to make and which typically require empirical data before, during, and after project assistance:

1. Decisions Before Projects:

- Designing Projects: Decisions on the information needed for audiences, communities, problems, needs, and concerns as a basis for setting project focus, locations, targets.

- Developing projects: Decisions on the type, quantities, timing, and costs of investments needed to ensure the desired delivery of health services; on feasibility studies needed; and on area-to-area studies and adaptations needed if the project extends to different geographic and ethnic areas.

- Specifying projects: Decisions on the specific measures of achievement that will best express project performance at any stage (input, output, outcome) of activity.

- Basing Projects: Decisions on a host-country institutional base most suited to the project and whose staffs can most benefit from professional training.

2. Decisions During Projects:

- Implementing projects: Decisions on a system of management for ensuring that project inputs are enacted in the form of the desired delivery outputs, and reach intended target locations and recipients.

- Introducing projects: Decisions on using PHC staff, paraprofessionals, or community volunteers, etc., to facilitate village entry and contact with local leaders, elders, councils, group members, and others whose support will be important to project success.

- Communicating projects: Decisions on increasing project awareness and motivation through, e.g.: paid and unpaid forms of mass and specialized media (newspapers, cinema, TV, radio, magazines, speciality advertisements); personal contact (health promoters, speeches, debates, seminars, lectures); folk media (drama, puppetry, songs); or village-specific media (film strips, split-screen images, video cassettes).

- Reporting projects: Decisions on a system of feedback on the physical and financial progress of project implementation through multiple tiers of administration and field management.

- Comparing projects: Decisions on an evaluation program that can, if needed, (a) compare the effects of a single project intervention and of combined interventions; (b) assess cost-effectiveness; and (c) show whether one intervention can serve as a catalyst for introducing others.

- o Sustaining projects: Decisions on improving ways of introducing projects into communities and eliciting local leadership support and community participation in the continuation of them.

- o Strengthening projects: Decisions on whether services or resources that are part of the project need to be stronger to improve its effectiveness; or whether new infrastructural support from outside the project is needed to ensure continuation after outside assistance is ended.

3. Decisions "After" Projects (after the period of initial outside assistance):

- o Extending projects: Decisions on whether project services can or do extend beyond the target communities to reach outside areas and populations; identifying the needs and demands of these outside populations; and determining the feasibility of reaching them with existing or improved services.

- o Linking projects: Decisions on how to connect the project with other government and private-sector development activities; on how to strengthen the networks involving these groups; and on how to articulate community health needs to the available government or private sector services.

- o Integrating projects: Decisions on the best means of integrating mutually supportive services so that administratively and geographically they converge in delivery to the same people in the same places at the same time.

- o Transfering projects: Decisions on new or additional resources, TA, and expertise needed to transfer health project technology (e.g., vaccines, equipment, research methods) to independent control and use of the cooperating HC institutions.

- o Replicating projects: Decisions on the socio-cultural, economic, and locational feasibility of adapting and replicating the project on a larger scale, in area-to-area terms of cultural suitability, technology, and cost-effectiveness.

- o Planning new projects: The decision-making process is continuous and circular. Each of the above decisions can lead forward to a new decision or backward to a previous one. They are interrelated checkpoints somewhere along a continuum of programming, indicating the kind of contributions a project can make to local development priorities.

Of course, managers do not make all of these decisions for any single project. But every manager makes some of these decisions, based on good or bad information. Therefore, planning a project means planning for the information needed before, during, and after the project is concluded. Many of these information needs can be met through rapid, low-cost methods.

II. UNDERSTANDING RLMs

A. THE CONTEXT FOR RLMs:

For years, missions have tried to adapt large-scale, conventional research methods to their information needs. And there have been notable successes. But needs frequently have not been met, and managers have complained that too many studies:

- Are not useful for decision-making.
- Are expensive.
- Are overly complex.
- Take too much time.
- Are not understandable.
- And are off-target.

Overall, as the above indicate, AID has too often discovered that conventional research methods cost too much and take too long to get something that does not help. Other criticisms have been that:

- Researchers have different agenda, objectives, and perspectives than project managers.
- Researchers often ignore the local social, economic, and political, context that gives real meaning to their projects.
- Field experiments, in particular, have disappointed managers. Besides their excessive time and cost, they have concocted unrealistic service delivery situations which, even if successful, cannot be sustained or replicated with available GOH resources. Researchers in other words, have tried to control the real world so that it would act "unnaturally" for their experiments.

Disenchanted, some Agency managers and evaluators have turned to faster and simpler methods that could produce empirical data in fairly rigorous fashion.

These research methods are not new. Each has its own history in the social sciences. Each is a valid, credible means of gathering data. And each has advantages and limitations in use.

Most rapid, low-cost methods are abbreviated versions of larger, more formal methods -- such as large-scale surveys or controlled field experiements. In general, RLMs differ from conventional field research methods in size, scope, time, and cost. RLMs tend to be smaller, more focused, less formal, faster, and cheaper.

In examining rapid, low-cost methods, we need to consider:

- What kinds of methods RLMs are: what objectives they serve and what types of data they produce.
- How to ensure the proper use of each technique within the limitations on its use.

As will be seen, RLMs involve important trade-offs between gains in time and cost efficiency and losses of explanatory power.

In theory, we would like to collect the best information we can. In practice, we often cannot. We make trade-offs in choosing any data collection technique: trade-offs in theory, time, cost, error, explanatory power, representativeness.

B. CHARACTERISTICS OF RLMs:

RLMs are typically used to describe the characteristics of one or a few particular groups or situations. They usually are not used to measure changes in people's behavior and they do not describe large populations. RLMs are often used as a basis for programming among specific groups, for field-testing operations, or for fine-tuning delivery.

Used properly, RLMs can provide timely feedback on specific services being delivered and the specific audience being served. The data must be weighed with other relevant information.

More specifically, the following checklist gives a number of typical characteristics of RLMs:

----------CHECKLIST 1----------

RLMs ARE USUALLY...

- Fast: Information is needed quickly. Field time is measured in days and weeks, not months. One estimate is that RLMs usually involve one to six weeks of fieldwork with a staff of one to three professionals.<*>

- Low-cost: The studies tend to be bare-bones. Usually, they use few researchers and staff, talk to small numbers of respondents, go to few sites, and have simple logistics, few materials, little data processing (often by hand, on-site), and require little assistance.

- Practical: While guided by theory, theory-building is not an objective. These studies focus tightly on a specific problem, project, population, and area.

- Actionable: The data pertain to real-life problems of getting health services to people who need them. The studies are devoted to strengthening the links between health producers and consumers.

- Feasible: RLMs are do-able. You do not have to be a Ph.D. in economics to design one or to understand one. And resource needs are minimal.

- Homogeneous: In addition to concentrating on specific problems and areas, RLM studies focus on one or a few population subgroups. They do not (generally should not) include a wide diversity of cultural groups.

- Focused: RLMs tend to probe a few topics in depth, rather than getting superficial information on several topics. If they involve surveys, RLM questionnaires are usually short. If group interviews are involved, they are usually limited to only six to 10 general questions.

- Informal: While some RLMs use structured questions like a formal survey, most are informal; questions are asked conversationally. Interviewers may vary question sequence depending on the flow of conversation with the respondent or group. The emphasis is more on the data, than on the means of getting them -- although we take care that our means are not shoddily implemented.

<*> Norton, Maureen, and Sharon Pines Benoliel, Guidelines for Data Collection, Monitoring and Evaluation Plans for Asia and Near East Bureau Projects, Washington, D.C.: U.S. Agency for International Development, ANE/DP/E, August 1985, p.31 (in draft).

- Flexible: RLMs usually use flexible criteria in choosing samples. Such samples tend to be based on some form of overt behavior or circumstance. For example: (1) participants -- women who come to the MCH; (2) consumers -- men who buy contraceptives; (3) social-economic class -- poorest households; (4) demographic quotas -- men and women under 30 years of age; etc.

- Few Respondents: RLMs tend to interrogate relatively few people. As such, "general population" surveys are seldom an objective. Rather, these studies seek typical respondents or informants who are most likely to represent the population under study (lowest-income, nursing mothers) or most likely to be knowledgeable about the population (e.g., village headmaster).

- Natural Groups: Instead of one prototypic respondent, RLMs seek out several. Moreover, "natural groups" (e.g., nursing mothers) are often formed and interviewed together in group discussions, rather than individually, saving field time and cost. But more important, the group is used to cross-validate individual views: different members adjust each other's responses in light of shared knowledge. If done well, group members help each other expand their comments. If not, groups can be inhibiting or one or two members may try to dominate discussion. Interviewers must be skilled.

- Surrogates: If unable to reach typical respondents or natural groups, RLMs may use surrogates -- people who know the study population well enough to play the role of the intended respondents.

- Involve Counterparts: Keeping the problem simple and the study focused on practical needs offers opportunities for involving local counterparts who have only modest research training. Specialized training and imported technology are seldom needed. The gain is to improve the study's cultural and policy perspective.

- Local Researchers: For the same reasons, managers do not have to wait for a U.S. contractor to come to do the study. The problem and methodology are easy to convey, and the logistical and technical demands light enough that local research contractors with smaller operations and less experience can perform competently.

- Manager's Control: With the health manager's intimate involvement, all RLM operations can be closely supervised and immediately responsive to feedback needs.

---------- END CHECKLIST ----------

While the description of RLMs is very upbeat, they have important limitations -- as the next section shows.

C. IDENTIFYING RLMs:

RLMs can be identified by the "reach" and use of the data they produce. First, let's consider the extent of data reach:

1. Data Reach:

One way of classifying research methods is by the extent to which we can conclude for a whole population. That is, data reach is the degree to which we can conclude for:

- All people.
- A group that represents (approximates) all people.
- A group that represents only itself.

The use of random sampling is at the heart of these differences.

These three approaches can be used in evaluating field studies which collect new data (such as a survey) as well as in monitoring studies of already existing data (such as a reporting system):

BASIC M&E DATA GATHERING APPROACHES<*>

- Census: We can get information for all of the people in a population. So we can describe all people without any error (total "reach," no sampling involved).
- Sample Survey: We can get information from only some of the people but in such a way that they represent all of the people. So we can describe all of the people but with some known error (inferential "reach," due to sampling).
- Micro-Study: Or we can get information from only some of the people who only represent themselves. So we can describe these people but not the population (no "reach," restricted to people studied; no question of sampling error).
- Variants: Many variations of these methods arise through their combined use or their use of additional design features: comparison groups, measures over time, etc.

So, one way of distinguishing M&E methods is by the extent to which they project to whole populations (generalize) or are limited to partial populations (do not generalize).

<*> Office of Evaluation (now PPC/CDIE), Manager's Guide to Data Collection, Washington, D.C.: U.S. Agency for International Development, November 1979, Ch.4.

2. Use of Data:

In addition to its reach, we distinguish information by whether it describes or explains people's behavior:

- To describe: To tell what exists.
- To explain: To tell why it exists and how it is caused.

Information that explains people's behavior is more difficult, time-consuming, and costly to get. It usually involves comparing different groups, measuring the same people at different points in time, and other conditions.

3. Scheme for Classifying M&E Methods:

Above, we noted four objectives of information: (a) to describe or (b) to explain human behavior, and (c) to generalize or (d) not generalize that information to larger populations.

Here, we will round out the definitions as a basis for classifying M&E methods:

INFORMATION OBJECTIVES:

- Describe: To describe is to tell what exists, what has happened, or what is happening in terms of size, number, frequency, direction, type of behavior.
- Explain: To explain human behavior is to tell "why" something happens, or "how" it is caused -- e.g., why some people act one way and other people act another way.
- Generalize: A spoonful from the pot tells us that the soup will be delicious.

  Likewise, a generalization is an inference about all of the people based on studying only some of them. 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 are not necessarily studied themselves.
- Extrapolate: An extrapolation tastes the soup, and concludes for the rest of the meal too.

It is an inference about the population that (a) is based on evidence from a subgroup that does not necessarily represent the population; or (b) is based on evidence from a different population. So, an extrapolation is a conclusion (without evidence) about people and conditions which may be different from those studied.

These four information objectives give the following table as a scheme for classifing RLMs and other research/M&E methods:

SCHEME FOR CLASSIFYING M&E METHODS:

	EXTRAPOLATE	GENERALIZE
DESCRIBE	(a) What behavior exists in a subgroup	(b) What behavior exists in the population
EXPLAIN	(c) What causes behavior in a subgroup	(d) What causes behavior in the population

- The top of the matrix distinguishes methods that are known ("Generalize") or not known ("Extrapolate") to represent the larger population.
- The side of the matrix distinguishes methods that do ("Explain") or do not ("Describe") measure changes in people's behavior over time.

D. COMPARING M&E METHODS BY THE DATA THEY PRODUCE:

The table below categorizes RLMs and methods that can be adapted as RLMs in terms of the kind of data they produce.

IDENTIFYING RLMs AMONG M&E METHODS

	EXTRAPOLATE	GENERALIZE
DESCRIBE	USE: TO KNOW A LOT ABOUT A LITTLE (*) Participant Observation (R) Non-participant Observation (R) Sociometric Observation (R) Focus Group Interviews (R) Depth Interviews (R) Surrogate Interviews (R) Key Informants (R) Expert Panels (R) Projective Techniques (R) Non-probability Surveys (R) Media/Material Pretesting	USE: TIMELY GENERALIZATIONS FOR LARGE POPULATIONS Population Census (*) One-time Surveys (R) Reporting Systems (R) Aggregate Data (R) Content Analysis
EXPLAIN	USE: TO KNOW A LOT ABOUT WHY A FEW PEOPLE CHANGE (R) Critical Incidents (*) Case Studies (*) Pilot Study/Demonstrations Quasi-Experiments: --Interrupted time-series --Non-equivalent groups Human Lab Experiments	USE: TO KNOW SPECIFICALLY WHY MANY PEOPLE CHANGE AS THEY DO Controlled Field Experiments Multi-time Surveys: -- Gross-change Surveys -- Net-change Surveys Simulation Physical Lab Experiments

Note: (R) = Often used for RLM studies.
(*) = Can be adapted to RLM use.

As seen in the above table, RLMs are more likely to be among the methods that EXTRAPOLATE DESCRIPTIONS to populations. So, they are studies of subgroups not likely to be represent the population. Here, we briefly describe the methods in the table, noting where RLMs best fit.

1. Methods That Extrapolate Descriptions:

As shown in the upper-left cell of the table, these are studies that describe the properties of an unrepresentative portion ("subgroup") of the larger population. Or, these are micro-studies of individuals, groups, communities, or other parts of a larger population, but not the population itself. These are also called "community studies" and "small-group studies."

RLMs tend mainly to be in this group of micro-studies.

Micro-studies are often qualitative -- based on few people and yielding subjective data on only a few issues. Such inquiries are usually not standardized but are uniquely shaped by the personal skills of the researcher. Questions may be posed differently to different people, more like a natural conversation than a questionnaire. This encourages flexible follow-up and probing, and tends to produce in-depth data of high validity.

Micro-studies tend to immerse reseachers in the local culture, and can provide deep insights. The researcher may visit or live in the community, and conduct the inquiry as an unobtrusive part of daily interaction. Or, she may meet mothers "naturally" in, say, an MCH clinic, to query on child health practices.

In sum, the disadvantages of micro-studies are that they can be unique, impressionistic, uncontrolled, and only weakly quantified. The advantages are that they can be relatively unobtrusive and natural approaches to a problem, for which they can probe in-depth and produce data of high validity.

Micro-studies are best used when we want to know "a lot about a little." This is usually early in the research process for developing ideas for further study, for uncovering broad attitudes, for probing hidden meanings, for revealing cultural nuances. The research process may stop here or go on, with larger studies (e.g., surveys) to confirm micro-findings in the population at-large.

Some of the commonly-used RLMs for describing subgroups are:

a. PARTICIPANT OBSERVATION: This method can be adapted to RLM use. It is used in in-depth community and group studies to describe a whole social system or institution. The observer may be obtrusive (a stranger) or unobtrusive (a participant) in the research setting. But the purpose of the observation is obscured. The observer lives in the community or joins the group, observing behavior and carrying on informal conversations with informants.

   The purpose of participant observation is to learn the deeply-layered dimensions of community life and the relationships among its parts. One advantage is that we often get better information by watching how people behave than by asking them how they behave. The disadvantage is that "the analysis depends heavily o the perceptiveness of observers and their own biases". (*)

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* Op Cit., Norton and Piner, 1985, p. 45

b. NON-PARTICIPANT OBSERVATION: This is used to observe people acting naturally, without their being influenced by the presence of outsiders -- especially if perceived to be higher ranking, in some position of authority, or just different (by language, nationality, clothing). For routine counting, an observation checklist may show the number of shops, types of roads, distances, modes of transport, size of farm plots, number of water pumps, visits by the VHW, etc.

c. SOCIOMETRIC OBSERVATION: This may be participatory or non-participatory observation of people's behavior for the purpose of relating the "parts" of a whole social system to each other -- in effect showing what is related to what, how, and why. The analysis tries to reveal the structure of the system as well as the influential, ordinary, and isolated members, and their communication channels.

d. FOCUS-GROUP INTERVIEWS: A small group (6-10 people) is convened to focus on a specific problem, and through free conversation probe deeply into members' knowledge, perceptions, attitudes, beliefs. Focusing is deliberate. This technique does not explore all health-related attitudes people may have -- which might produce a wide range of topics, but provide little depth to any. Group interaction tends to expand topical limits, develop deeper meanings, show consensus and differences, and provide some internal validity by cross-checking responses.

e. INDIVIDUAL DEPTH INTERVIEWS: An individual approach is best when there are sharp differences, inconsistencies, or sensitivities among would-be respondents. For example, it may be best to interview individuals on such personal topics as hygiene, wealth, village conflicts, family planning practices; or when there are differences in social class, caste/religion, ethnicity, language, political party. Also, individual interviews would be used when respondents cannot easily be brought together or when everyone's knowledge or beliefs are important for analysis. (Some people are evasive or intimidated in groups, and their views are smothered in the group process.)

f. SURROGATE INTERVIEWS: Surrogates are chosen to represent an inaccessible population. They are substitutes who play the role of the people we cannot reach, answering as these people would. A sample of surrogates might be chosen based on the likely quality of their knowledge of the population (a sample of surrogates differing by age, occupation, and length of exposure to the population); or for their expertise -- e.g., journalists, medical doctors, ex-Parliamentarians.

g. KEY INFORMANTS: Key informants are identified, usually by social or occupational positions, and sought for their unique knowledge of a setting (village, factory, cooperative) or situation (PHC services, latrine installation project). Unlike surrogates, we seldom are concerned for the representativeness of the informant group. Informants help us to (1) understand subject matter in deciding what to study and how; (2) anticipate the study setting -- leadership, communication patterns, social groupings; and (3) know local histories, such as land and water disputes.

h. EXPERT PANELS: Experts are especially useful at the design stage in narrowing study focus and at the analysis stage in setting data limitations. Their use may be very casual or highly directed. One highly-directed method that helps in narrowing study focus is the Delphi Technique. Delphi systematically "forces" consensus of the judgments of a panel of experts, and converts them into probability statements for determining the "most probable" variables in a study design.

i. PROJECTIVE TECHNIQUES: Free associaion, sentence completion, ink blots, picture frustration, thematic apperception, et al. The obstacle to using these psychological "profiling" techniques is that most have been developed in the West and few have been adapted to LDCs. If much psychological evidence is culturally derived, the validity of any unadapted measure is suspect. One useful device is role-playing, by which participants become "actors," playing the role of other people.

j. NON-PROBABILITY SURVEYS: A "probability" survey is based on random selection to produce samples that are miniatures of the total population. However, random sampling is expensive in time and money needed to count or accurately estimate the number of people in the population, as a basis for sampling. So, we often forego random sampling and draw samples based on our experience, judgment, or purpose. These non-probability (purposive) samples fail the conditions in theory needed for using statistics based on mathematical probabilities.

Other reasons for non-random sampling are (1) we know the population and believe our experience will produce a good sample; (2) the population is unique in time or space -- e.g., participants at a national Health and Family Planning festival; (3) the population is ill-defined and

scattered: (4) population members will be defined by their characteristics (mothers whose children are all girls) when we find them; (5) we want only a few, selected types of people, and rather trust our judgment than a table of random numbers to pick who is typical; (6) we are only after exploratory information.

Some common purposive surveys are: (1) pretest -- a dress rehearsal to trouble-shoot problems before the main study; (2) convenience sample -- taking those easiest to find; (3) self-selected sample -- volunteers; and (4) intercept sample -- interviewing in public place, stopping people as possible.

k. OTHER SPECIALTY SURVEYS: Some surveys blend both probability and non-probability sampling as well as formal and informal data collection. They tend to be non-random and informal:

- Sentinel post survey: A small sample of villages or clinics is chosen to represent the project area. A data collector periodically relays data on services, villages, and villagers to the project office.

- Multi-disciplinary survey: A group of professionals from different disciplines (public health officer, nutritionist, child psychologist, communication researcher) each interviews villagers from the perspective of his/her discipline. Their notes are later merged into a full report.

- Trace-route Survey: Interviewers visit the village several times during the project to reinterview people, which overcomes problems of recall of perishable information; of record-keeping (e.g., daily use of oral contraceptive); or when the problem in continuous, not able to be seen in its totality.

- Checklist Survey: Armed with a topical checklist, interviewers ask any questions in any manner necessary to produce an answer for each topic.

l. MEDIA/MATERIALS PRETESTING: Because of its importance for SOCM and CBD campaigns, we single out media pretesting as a special kind of (typically) purposive sampling. Pretesting measures people's reactions to messages in advance of an information campaign. Pretesting media and messages is essential to any programming for which the manner by which people are informed is important to their trust, belief, or participation.

2. Methods That Generalize Descriptions:

These methods are used to describe an entire population based on evidence from that whole population (a census) or a group that is representative of the population (a survey). We use these methods when we want a "timely (not rapid) generalization." Such methods can be but seldom are RLMs. For example:

a. CENSUSES: A census collects information for all members of a population. Since costs are high, research censuses are seldom done except for small, easily defined populations or to develop a sampling frame for a statistical survey.

b. SAMPLE SURVEYS: There are an endless variety of surveys: varying in sample types and sizes, and in number of topics and questions; done once or repeated; taking a few moments to a few hours per respondent; lasting one day or many months; and ranging from a study of one community to a nation of communities.

Most surveys are conducted "invasion" style; with interviewers sweeping into the community and remaining "strangers" for the duration of their visit. Questioning tends to be brief for any topic and data are often superficial. Questions are usually structured -- asked in specific ways with specific responses provided.

The interviewer is a critical point in survey methodology. No matter how good the study design, results are only as good as those carrying out the survey in the field. The quality of interviewing is generally the most important factor in obtaining trustworthy survey information in developing countries. Statistical surveys are occasionally used as RLMs, focusing on relatively small and easily sampled groups.

c. REPORTING SYSTEMS: Routing information from accounting systems, inventory systems, trip reports, service records, client contact, patient registration, personnel ratings, activity reporting, and the like, can be an extremely useful RLM basis for program and project analysis.

d. AGGREGATE DATA: This is an existing body of data at any level -- on individuals, institutions, communities, districts, counties, states, region, nation. It is as hazardous to extrapolate upward (from farmer to village to nation) as to extrapolate downward (from state to district to rural cooperative).

e. CONTENT ANALYSIS: This systematic, category-by-category analysis of the content of communication sources (newspapers, government documents) may show changes in (1) institutional policy and themes; (2) social problems; (3) programming emphases and directions. Although a very thorough kind of data analysis, content analysis can be performed quickly and can help in framing questions for field studies.

3. Methods That Extrapolate Explanations:

These methods usually are used to explain cause-and-effect relationship within subgroups. They do not generalize to large populations. We use them when we want to know "a lot about why a few people change as they do."

These methods are largely intensive, on-site studies of change. They tend more toward immersion than invasion of the study culture. They usually combine methods -- using participant and non-participant observation, formal and informal/group and individual interviewing, quantitative and qualitative data. Often such studies will include comparison groups.

Such methods are best used when:

- The focus is on change in a well-defined, intact subgroup.
- Time is given for in-depth study.
- Equivalent groups can be compared before (often during) and after some outside health intervention.

These studies are intensive like micro-studies, but they try to explain the process of change within a total social system (group, community, institution).

Commonly-used tools for explaining changes in subgroups are:

a. CRITICAL INCIDENTS: A retrospective study of change that (1) narrows a problem by eliminating extraneous data; and (2) traces the antecedents and consequences of events. Data are obtained in interviews, unstructured except for a few basic questions around which all responses are organized. Suppose we want to learn how new Public Health Nurses adjust to working in rural areas. Each nurse is asked to describe privotal, early events that influenced her decision to remain or leave. Information is obtained on each incident, its antecedents, reactions to them, actions taken, and the consequence.

b. CASE STUDIES: Known as a "non-experimental" field study, a case study is a personal witness to the process of change -- before, during, and after. The observer is on-site before and throughout the period in which a new health service, product, or idea is injected into the community. (The "case" may be an event, community, group, project, or new technology.)

Its strength is its intense, personal focus on why change occurs in response to interventions. The results will guide community-level project implementation elsewhere. Because it compiles whole histories of specific change efforts, the case study is also popular in training. Technicians work on a case history basis, and the whole-case approach probably simulates their work better than any other training.(*)

Because the observer's presence may alter villagers' behavior, questions are indirect as often as direct, observations reinforce and sometimes supplant questioning, and proxy indicators rather than direct measures may be used.

c. PILOT STUDIES/DEMONSTRATIONS: These are special case studies. The pilot study seeks to replicate methodology. The demonstration project seeks to replicate programming. So the latter may collect little data -- perhaps only on project outputs.

For example, a pilot study in two market towns may test the idea that PHCs should exploit rural communication networks, which are built around th service-area "pull" of different combinations of market facilities and amenities. If the pilot results are favorable, the study may expand to other areas to cross-check the findings.

But even with good pilot results, managers may disagree about the best implementation. So, a demonstration project may be done in four market towns, comparing two implementation approaches. Changes in PHC use will be compared after one year. Given a clear difference, the more effective approach will be adopted widely.

d. QUASI-EXPERIMENTS: The "quasi-experiment" resembles a true experiment (see below), but lacks some essential feature. For example, the interrupted time-series study has data trends but usually has no other groups to compare with. The non-equivalent groups project has groups for comparisons, but they are not comparable. Thus, such studies may explain change in a specific situation, but cannot generalize to other situations.

(*) Casley, Dennis J., and Denis A Lury, Monitoring and Evaluation of Agriculture and Rural Development Projects (A World Bank Publication), Baltimore: The Johns Hopkins University Press, 1982, pp. 62-68.

The interrupted time-series explanation gets better as our knowledge of the timing of events gets more precise. If we know the specific data trends (say, from village-level and PHC records), we might infer the historical impact of new services, discontinued services, or different services.

When we have all conditions for an experiment, but have not made the groups (villages) equivalent through random selection, we limit our ability to explain what causes what. In concluding about changes in each group, we must take care that the differences between them are not due to some uncontrolled, non-random factor (e.g., presence of all-weather access roads).

e. HUMAN LAB EXPERIMENTS: Many important concepts of psychology, communication, social-psychology have come from these studies of "college sophomores." Yet, the situation is artificial. And laboratory volunteers represent no population but themselves.

4. Methods That Generalize Explanations:

In theory, these are the most powerful methods for explaining the causes of behavior ("What cause what, and why?") in large populations. In practice, these have been the most disappointing development-assistance studies. None of these methods is really useful for RLM purposes. They usually involve heavy investments of time, money, and other resources.

Most of the following methods are seldom used in AID-sponsored research or M&E efforts:

a. CONTROLLED FIELD EXPERIMENT: The field experiment probably has been the least productive/most costly type of study done in developing countries. Explaining which causes produce which effects in the real world is hazardous. Such study requires great rigor, and often unrealistic assumptions.

The field experiment is designed like those in the lab: (1) before measurement -- observe real groups; (2) intervention -- add a new ingredient to some groups; (3) control groups -- leave comparable groups untouched; (4) after measurement -- observe any changes; (5) random selection -- choose people and groups randomly to ensure that any change is not a fluke or caused by us.

Mimicking laboratory conditions in the real-world does not always require complex, costly, and time-consuming designs, but usually it does. In addition to excessive time/cost and weak findings, field experiments often assume control of the real world -- preventing natural events from influencing and contaminating our study groups. In reality, we rarely achieve such effective control or the ability to separate causes and effects so neatly.

b. MULTIPLE-TIME SURVEYS: Like "Quasi-experiments" multiple-time surveys do not fully measure change. Gross-change surveys and net-change surveys resemble experiments, but they are not. Both have comparable groups and measures before and after an intervention, but neither controls who is exposed to the intervention.

These studies are more useful for charting the flow of naturally-occurring events -- like the spread of information about new services -- than for specific health interventions. However, certain design improvements (more surveys, stronger measurement, etc.) can improve their approximation of a field experiment.

Gross-change surveys measure the same population two or more times. Each time a new, equivalent random sample is chosen independent of the previous one. As such, the samples can be compared. But because they do not have the same people in them, they can be compared only for broad changes in the total population, major subgroups, or general classes of people -- e.g., non-literate mothers.

Net-change surveys (also called panel studies and longitudinal studies) interview the same people at two or more times. Except for people lost between surveys (infirm, deceased, unavailable), the samples are identical. Thus, the samples can be compared for net changes in individuals -- Who changes? At what rate? When? In response to what? Why? Other than sample attrition, the major problem here is that people become sensitized by the interviewing to the topic in question.

c. PHYSICAL LAB EXPERIMENT: The prototype for field experiments: "pure" experiments in controlled conditions, in which human differences do not complicate measurement. Very large populations (e.g., zinc) can be represented by very small samples. If a finding holds up through repetitions, it can be generalized to the population without concern for social or economic variations. While useful in medical and agricultural labs, the utility of the experiment to AID field officers is only as a model.

d. SIMULATION: A computerized mathematical model that tries to duplicate and manipulate social conditions by varying all known elements of a social system for which values can be assigned and statements of their cause-and-effect relationships given. Simulation models are used in AID training -- e.g., the "diffusion" game. Simulation can be used to test alternatives to field research findings at much less cost than doing more field studies. But, while useful for projecting space flight, simulation is to-date only a paper proof for health services delivery.

III. USING RLMs

A. STUDY PURPOSE:

RLMs are used for different purposes: (1) for research, (2) for project planning, and (3) for field feedback:

1. Research:

RLMs may be a stepping stone to further research and evaluation.

o EXAMPLE: As a basis for developing proxy indicators for a later survey, six focus groups might be formed to learn how to measure concepts which vary by village -- e.g., norms, statuses, roles, sanctions, leadership, wealth. Or, a check-list survey of "wealthier" and "poorer" households might be undertaken for getting the range of values (e.g., number, amount, frequency, size) for a study of family small-enterprise activities.

2. Planning:

While seldom the only source of information, RLMs can improve project design.

o EXAMPLE: Non-participant observation and informal interviewing in two ethnic areas might help us understand whether cultural differences affect village responses to well-drilling operations. Here, observers could be "members" of the Water and Sanitation teams, recording their impressions in each area. The findings may lead to different strategies for trying to elicit community support in the two areas.

3. Feedback:

RLMs can be a rapid means of (a) monitoring: spotchecking the delivery of supplies and services; as well as (b) evaluation: field-testing audience responses to service delivery.

- EXAMPLE: Quarterly GOH reports reveal that 65 percent of all MCH clinics are behind production schedule and that village utilization of those in place is low:

  (1) Monitoring: A three-person team (a construction engineer, personnel consultant, and government logistician) is sent to 10 construction sites to review work schedules, check supply records, inspect equipment, and talk with workers in order to determine bottlenecks and delays in the system.

  (2) Evaluation: A local anthropologist visits four villages in a 12-day period. In each village, she holds group discussions with mothers, focusing only on why the women are not using the MCH -- rumors, stereotypes, fears, local beliefs, and child-care practices that may inhibit MCH use. A second professional goes to the four corresponding clinics, where she interviews clients informally about their reasons for coming and the village obstacles they overcame.

  The results may lead to a new construction schedule and administrative improvements, and to adjustments in the public information campaign in support of the clinics.

As seen here, RLMs can be used at any time in the programming cycle when information is needed quickly. They are most useful when the problem, population, and purpose are narrowly defined.

B. WHEN TO USE RLMs:

RLMs are not new research techniques. They are novel applications. The methods are problem-driven and project-specific. Their speed and economy enable the manager to carry on a dialogue with project beneficaries. RLMs are best used for operational feedback, when we are trying to build information bridges between health producers and consumers and want a lot of two-way traffic.

One concern about RLMs is that they are not rigorous enough to produce trustworthy data. This is a valid concern, but misplaced. The real concerns for both managers and researchers for all methods of research, evaluation, and monitoring are:

- Limitations: That we all share the same understanding of the limitations on the data we commission and on the data we get.

- Methods: That we report our methods in accurate detail, so that others will understand the data-use limitations as well.

- Assumptions: And that we give explicit evidence of the assumptions on which we move the explanatory power of our data to a higher level.

Then, if managers decide on the basis of an RLM study of four villages to recommend regional programming, they (and we) understand the plausible assumptions on which their case is based, for example:

- The strength and internal consistency of the findings for different subgroups within their villages.
- The strong relationships between the values of the RLM study's indicators (e.g., low awareness, high fatalism, poor village access) and the values of criterion indicators (e.g., PHC utilization, mortality rates) that have been shown in other research to be highly related.
- The strong consistency found between the study's data for individuals (disaggregated) and existing data for the region (aggregated).
- The findings from other research that similar indicators (disaggregated) in other regions show the same patterns.
- And even the common-sense experience of other researchers and managers that the relationships found here will be found elsewhere.

C. CHECKLIST OF WHEN TO USE RLMs:

The Checklist below translates the characteristics of RLMs into guidelines for when "best" to use them.

----------CHECKLIST----------

WHEN "BEST" TO USE RLMs:

- When time, money, and other resources are scarce.
- When research expertise and advanced technology are not readily available.
- When practical, direct answers are needed to practical, direct questions.
- When deep immersion into the culture is not required (although RLMs may probe in-depth).
- When proxy indicators (number of yam poles as a measure of wealth) are readily available, their validity already established.

- When generalizations for large populations and explanations of change over time are not the purpose of study.
- When theory-building is not the purpose of study.
- When one or two cultural groups are studied rather than several.
- When the purpose of study is to generate questions for further, larger-scale testing, or to develop program ideas for broader field testing.
- When we want deeper, more personal insights into why people behave as they do.
- When we want verbatim comments for our reports: to translate quantitative data into human terms, to add color and improve readability, to show the actual flavor of language used, and to depict the range and intensity of feelings.
- When we are confident of our "ideal types" (such prototypic respondents as chemists in rural markets, VHWs in hard-to-reach villages, women in their last trimester of pregnancy, children who have had diarrhea during the monsoons, etc.).
- When we can direct the selection of respondents.
- When we are looking for the cultural, bedrock attitudes that underlie surface responses of different groups within the same population; attitudes that crystallize across groups.
- When the answers we want need be no bigger than the sub-population studied.
- When other data are available. When a complementary (horizontal) data base can be used to anchor a (vertical) RLM study.
- When we are able to replicate RLM studies to check for the consistency of findings in different areas.
- When we have other means available for verifying (triangulating) RLM findings.
- When we want to involve local counterparts and research contractors.
- When training is an important objective of the study.

- When theory is so potent that it will direct the RLM approach and methods.

- When our objective is to learn about demonstrable program logistics and operations: suitability of supplies and equipment in the field, adequacy of staff training, critique of service appropriateness, timing of resupply and maintenance.

- When the purpose is to "acculturate" measures -- probe cultural expressions and nuances -- and otherwise adapt methods to unfamiliar settings.

- When we want to learn whether our media themes make sense in the village context and whether the messages are correctly understood.

- When we're trouble-shooting: when the project is in trouble, and we need a "quick-fix" insight into what is breaking down in the field.

- When other generic data already exist, and we want to "bend" them specifically to local conditions.

----------END CHECKLIST----------

As seen in the Checklist, the reasons for using RLMs are many and varied. Some are overlapping and some are mutually exclusive. Altogether, they sum up to: helping us adapt our research skills; strengthening our monitoring and evaluation methods; and sharpening our definitions of health problems and populations, and thus the project purpose.

D. TRADE-OFFS IN USING RLMs:

As noted, using RLMs involves trade-offs which balance theoretical strength and data accuracy against the practical gains of greatly reduced time, cost, staffing, and other resources.

1. Special Considerations:

Just as good theory alone is not enough for the choice of research methods, neither are savings in time and cost a sole justification of our choices. Studies that are poorly done, no matter how quickly or cheaply, are still a waste of time and money.

Although we have described advantages and disadvantages of conventional methods and RLMs methods, three characteristics of the latter deserve emphasis:

- Problem-solving: For specific, manageable problems, RLMs usually offer faster (sometimes overnight) response time to real needs for field data. Speedy data capture enables quick, decisive actions to correct program defects, adjust strategy, substitute or modify indicators, and realign targets.

- Perspective: RLMs can provide more frequent, timely contact with the reality of the field -- a kind of deliberate, continuous communication that we seldom get with larger, more formal methods.

- Local Involvement: Where institutional collaboration and training are important project objectives, RLMs studies provide matchless opportunities for counterpart participation.

Beyond these qualitative advantages, there is a full range of arguments for RLMs that centers on the issue of how much and how accurate is the information we really need.

The issue of "how much/how accurate" is at the heart of the movement toward RLMs. But one of the reasons for constrasting different methods in pp. 13-25 is to suggest that we are not talking about the amount and accuracy of information alone. Rather, we are talking about different types of information, gathered for different decision objectives (describe, explain, extrapolate, generalize).

Accordingly, a focus group discussion does not equal a survey of village households. These are information strategies with entirely different objectives. One doesn't substitute for the other.

However, it is perfectly plausible that one information objective does not have to be served as often as we thought. Summing up the evidence from project managers from within and outside AID, a recent report concludes that a "consensus" is emerging that the kind of high data accuracy produced by large-scale surveys and field experiments is "unnecessary for most project decision-making."(*)

(*) Op Cit., Norton and Pines Benoliel, 1985, p.45.

Another observer sees the consensus building around the principles of (a) "optimum ignorance," or, knowing what we don't need to know; and (b) "proportionate accuracy," or, avoiding unnecessary precision.<*>

These seem to be sensible propositions. However, we would add a caution or two:

- Optimum Ignorance: It is often true that we can optimize our ignorance in advance of studying problems, and therefore select faster, cheaper methods. However, one characteristic of most developing nations is the great variablity within them. The vast heterogeneity of languages, life-styles, levels of living, attitudes and beliefs, ethnic backgrounds, religions, and other human characteristics in Third World nations are almost impossible to classify. Wholly different cultures exist across nations, within districts, between villages.

  Large health projects often cover many and diverse ethnic groups, geographic areas, and socio-economic classes. In these unfamiliar cultural settings, many of the variations within populations and their significance to our project are unknown to us. An RLM datum in one area may not equal that of another.

- Proportionate Accuracy: It is most likely that health program decision-making typically does not need highly accurate (low bias) or highly precise (low sampling error) field data. But here, especially, is where empirical guidelines would be useful. There is no book on field decision theory. Different managers will make different choices of the precision needed for the same type of decision. Is is not good counsel to advise using the same M&E decision rationale any more than the same programming rationale for each situation encountered.

2. Questions That RLMs Address:

RLM methods are likely to be useful (a) in situations in which we don't have the time and resources for large-scale study and in which we have evidence of the likely interplay of the local culture and our methodology; and (b) when our questions are generic ones, such as:

<*> Chambers, Robert, "Rapid Rural Appraisal: Rationale and Repertoire," Public Administration and Development, Vol. 1, 1981, p.99.

RLMs MORE USEFUL FOR GENERIC QUESTIONS

- Are VHVs well-received in the villages?
- Is the campaign message getting through?
- Are villages getting their supplies on time?
- What are some of the strongest fears about government health centers?
- Where should the public awareness campaign concentrate its messages?
- Are more patients coming to the PHC than before?

RLM's alone might be less useful, when the decision to be made rests on comparative knowledge, such as:

RLMs LESS USEFUL FOR COMPARATIVE QUESTIONS

- Which is most likely to predict mothers' use of ORT procedures, the quality of the VHW's training or the family's medical history?
- How likely is it that young married men who purchase contraceptives are better educated and have traveled more outside the village than their peers?
- Six months after the VHW's visit, what proportion of mothers are still washing their hands before handling food?
- What is the average number of averted pregnancies among married couples (wife 15 to 44 years old) in the village?
- How long does it take for news about the new MHC clinic to reach a majority of mothers in the village?
- Where do mothers get most of their information about how to deal with family health matters -- from the VHW, from the MCH, from relatives and the mother-in-law, or from other women in the village?
- Which fears or superstitious beliefs are the greatest obstacles to women coming to the PHC to get immunizations for their children?
- Which usually happens first: mothers seek out the VHW and then talk to their peers, or mothers talk to the other women and then seek out the VHW?

- Which types of women in the village are most likely and which are least likely to be influential for the views of other women on matters of baby care, on matters of personal hygiene, and on matters of cooking and food preparation? .

3. Summary:

Different M&E methods have complementary uses. But their objectives are not substitutable. And neither are they. It is not a question of one method instead of another. Each method has its purpose.

However, we have seen the inability of much high-cost, formal research to guide managers' decisions. The advent of RLMs seems a timely and sensible approach to USAID information problems by "approximating" conventional methods in situations where time and resources are limited.

Yet, we considerably improve our chances of benefiting from RLMs if we take three precautions:

- Abbreviations: In developing nations, large-scale research is hampered by inhospitable field conditions, time pressures, inadequate staff and finances, and other material constraints. The research process is abbreviated in many ways.

  RLMs are an abbreviation of the scientific method. There is nothing wrong with practicable short-cuts, so long as mission managers have full knowledge of what is being done, why it has to be done, and what are the implications for data-use (e.g., limitations on the findings).

- Quality Control: USAID health managers must tightly monitor contractors' performance, holding them steadfast to the agreed methodology. To fulfill the promise of RLMs, we must ensure their rigorous use. Although less structured and more informal than conventional methods, the same priciples of good data collection apply. Contracting research to be done more quickly and more economically does not mean it can be done less carefully or less skillfully.

- Reporting: Mission staff and AID/W staff must help each other. All must report fully on why and how the RLMs are used. This serves to build a body of portable knowledge of the correct applications of these methods. And it serves to remind users of the proper limitations on the utility of the data.

Meeting these minimal requirements will help colleagues to understand the circumstances and limitations on the data reported. It will also speed up the diffusion and innovative use of these techniques and, over time, increase our confidence in them.

As RLMs grow in popularity and use, AID/W evaluation staff as well as mission program managers and evaluation officers can improve their utility by replicating studies, by comparing results for equivalent methods and populations, and by systematically analyzing the internal consistency of data within and across studies.

APPENDIX

EXAMPLES OF RLMs IN HEALTH PROGRAMMING

1. ORT Social Marketing A-1

2. Integrated Services and Community-Based Distribution A-8

APPENDIX

EXAMPLES OF RLMs IN HEALTH PROGRAMMING

This appendix translates the "how to" use of RLMs into likely situations in health programming.

Below are two extended examples of how RLM methods can be used in planning, monitoring, and evaluating SOCM and CBD health projects.

Although individual field examples were abstracted from reports in the Agency's Development Information System (DIS), the two examples are fictitious in order to weave several methods into the same, comprehensive study. Hence, they are idealized, but not unreal.

The projects are:

- A Social Marketing campaign to be carried out in support of a new plan for disseminating Oral Rehydration Therapy (ORT) information and materials to rural areas.
- A Community-based Distribution scheme for promoting a new set of integrated services to rural areas, including improved services in Maternal-Child Health (MCH), nutrition, and water and sanitation.

1. EXAMPLE: ORT Social Marketing:

The Host Government (GOH) is undertaking a national Social Marketing (SOCM) campaign to promote ORT. A five-year, $5 million grant from AID has been given for the campaign. Payments are linked to campaign performance. However, planning has stalled in the Ministry of Health (MOH), and it is now about one year behind schedule and in jeopardy of defaulting on the loan schedule.

The campaign has these general objectives (detailed in the Log-Frame):

- The Goal is to help reduce child mortality and morbidity linked to diarrheal diseases.
- The Purpose is to increase rural mothers' accurate knowledge, favorable attitudes, and correct use of ORT.

To make ORT products affordable to the poorest families and available to the hardest-to-reach families, the SOCM campaign includes (a) GOH subsidization of ORT salts and solution and of ORT containers and measuring cups; (b) creation of a private-sector unit to manage production and distribution, including a rural network of wholesalers and retail outlets; and (c) MOH coordination of all information activities, including recruiting, training, supervising, and equipping Village Health Workers (VHW) to demonstrate ORT in the villages.

The nature of rural communication will have direct bearing on which media we use and which messages. Rural inaccessibility is, obviously, one reason radio has been chosen for the SOCM campaign. In addition, the barriers to communication make some villages different from others. This has implication for the types of villages chosen for the demonstration project as well as for the activities of the MOH mobile film crews and VHWs.

Because good transportation maps and aerial photographs do not exist and because a village-level census has not been done, we decide to undertake three RLM studies as a basis for planning and demonstrating the ORT campaign:

o KEY INFORMANTS: Four teams of two local-hire interviewers are dispatched to specific towns and markets in the region. Each team will cover two sites, one week at each site.

With topical guides, the teams will interview "transitionals" -- people who make their living plying the rural areas. These transitionals include trades-people/vendors, truck drivers, taxi drivers, bus drivers, policemen, postal workers, government extension workers, Ministry of Public Works employees, and others.

Working with maps showing village locations, interviewers will ask each transitional a few questions on three topics:

-- Accessibility: General estimates of villages' size, institutional development, distances, type of roads, wet/dry-season access, common modes of transport, bus/taxi service, major and minor markets used.

-- Communication: Communication channels (newspapers, radio) to the village, presence of radios, English-language abilities, frequency of postal and newspaper delivery, types of commercial visitors to the villages.

-- ORT-related: Knowledge of area's traditional beliefs and practices related to diarrheal infections, problems to anticipate in introducing new ideas, ideas on enlisting traditional healers.

Most information will come from transitionals who are "on the outside looking in" at villages, trying to describe communication and transportation behavior and health practices. We will try to refine our data and improve their usefulness in two ways:

The media for the SOCM campaign include the following (with other media selected during the campaign):

- o Mass media: Local-language radio broadcasts, 10- and 30-second radio spots, and a jingle; newspaper articles and advertisements, using the campaign slogan; and wallboards and posters.

- o Specialized media: Printed messages on, e.g., bank receipts, pay slips, government revenue receipts, food store and pharmacy sales receipts, shopping bags; food cartons, placards and painted signs on buses, taxis, produce trucks/mammy wagons. And mobile MOH film crews will visit villages with popular films and ORT shorts.

- o Interpersonal Media: Village discussion groups set up to coincide with weekly radio broadcasts; and mobile VHWs who visit assigned villages periodically to demonstrate ORT and meet with discussion groups.

The media will mutually reinforce ORT-related services and educational materials provided by (a) food stores and chemists in rural towns; (b) shops and stalls in rural markets; (c) hospitals, MCH clinics, family planning clinics, and other regional health institutions; and (d) village dispensaries, health posts, and traveling medicinists/healers -- who can be induced with a small incentive to promote ORT among their traditional cures.

GOH is anxious to launch the campaign. But it has agreed to undertake some basic audience research and materials pretesting as the basis for a demonstation project in a few villages in the most populous tribal region of the country. If all goes well, the project would be extended to the region. In similar fashion, the national campaign would develop in two more phases in the other two ethnic areas in the country.

The following are the RLM's studies decided as a basis for, first, selecting ORT media content and channels; second, setting up demonstration villages; and, third, evaluating the project:

a. Selecting Media Content and Channels: The problem here is that many of the villages in the region are hard to reach. Some have poor roads, impassable during the rainy season. Others lie great distances from markets, towns, bus stops, and all-weather roads. It is thought that the quality of communication to villages is related to the quality of transport routes and modes that serve them.

-- MOH Staff: Using our questions, several doctors and nurses from different medical sites in the area will write reports giving their full views of local community attitudes and practices related to traditional medicines.

-- Retailers: At each market site where transitionals are interviewed, a small sample of stall-keepers and other merchants will be asked about the origins and frequency of visits of their area village customers.

Among other things, the information here will be used as evidence for or against the planned use of radio and other media; to plan different mobile strategies for fairly uniform coverage of all types of villages in any area; to suggest themes for ORT campaign materials; and to classify villages by accessibility as the basis for sampling them for the demonstration project.

o FOCUS GROUP INTERVIEWS: Using the above information, villages will be classified by their high and low accessibility. Four villages (two of each type) will be chosen for in-depth group discussions. Within each village, simultaneous interviews will be conducted with a group of six to eight mothers with young children (0-5 years) and with a similar group of village leaders and influentials.

Two-person teams of male and female interviewers will make a one-day visit to each village, getting information on:

-- Both Groups: Confirmation of transportation and communication data from the key informants.

-- Mothers: ORT/diarrhea-related knowledge, attitudes, and practices; obstacles to adopting new practices; medical facilities visited; attitudes toward modern medicine, reliance on healers/spiritualists; media and content/program preferences, credible sources and appeals.

-- Leaders: Reasons and frequency of going to towns and markets; ORT/diarrhea-related knowledge, attitudes, and practices in their homes and which they condone or oppose; feelings about new medicines, trust in and use of government health facilities; likely response to outside VHWs coming to their communities.

The purpose of these in-depth discussions is to develop media themes and appeals as well as to suggest indicators for monitoring and evaluating the impact of messages and services reaching the village. Another purpose is to guide VHWs in approaching village leaders for community support.

o NON-RANDOM SURVEY: Building on the information from all previous sources, media prototypes will be made for field-testing.

Also, villages will be re-grouped in terms of their isolation and probable communication links to, e.g., markets, towns, health facilities. Six villages differing in degrees of isolation/communication will again be chosen for household interviews with mothers with young children and a group of village leaders and healers.

The sample will be chosen purposively by a team of one male and two female interviewers. In two days, each will conduct eight interviews -- the man with village leaders and the women with mothers. Leaders will be chosen by "reputation." Mothers will be chosen by their household's (a) apparent socio-economic status and (b) presence of young children. The purpose of this information is:

-- Field Test: Pretest media materials: content, format, understandability, appeals, evocative images, and the like.

-- Confirmation: Verify at the individual level the group data obtained earlier on ORT-related knowledge, attitudes, and behavior; as well as information on communication links, etc. Special emphasis in these one-to-one interviews will be given to knowledge and attitudes, because in group discussions the former is so easy to mask and expression of the latter is so easily influenced.

-- Monitoring/Evaluation: Obtain data on certain M&E indicators for unobtrusive monitoring by the VHW during the project and for a re-visit one year later to collect the same data from a similar sample of villagers.

The information from the non-random survey will be used to make final adjustment in the strategy for all SOCM media -- mass, specialized, personal media; choices of channels, messages, themes, formats, appeals, colors, slogans, storyboards, et al.

b. Adjusting Programming Operations: Because of the AID loan schedule, we don't have much time to show the rural impact of GOH's Social Marketing Campaign. Only six months remain for showing some "movement" in village response to the ORT

campaign. All of our bets are on one strategy: we have only one implementation approach vs. none for comparing effectiveness. While not very informative as a test, we will still get useful answers for this next-best effort.

- DEMONSTRATION PROJECT: As part of the demonstration project, we schedule village coverage to ensure that our survey villages are not served in any way different from neighboring villages -- no more, no less. Then, we set up two field monitoring systems for getting unobtrusive evidence that the SOCM campaign is reaching rural areas effectively or not:

  -- Medical Facilities: A list of all area villages and a very brief "in-take" questionnaire will be given with training to staff of local hospitals, PHCs, MCH clincs, FP centers, health posts, and dispensaries.

  Incorporated into registration procedures, the questionnaires focus on diarrhea cases in terms of clients' personal background, village residence, distance, transport, frequency of visits; plus masked questions on information, attitudes, behavior and problems related to ORT and local diarrhea treatments, children's deaths, as well as exposure and reactions to the ORT campaign and methods.

  -- Retailers: A sample will chosen of all food stores, stalls, and chemists that sell ORT or other diarrheal treatments. Literate owners/employees will be given brief checklists and coaching in asking about village residence, ORT-related themes, problems with treating diarrhea. For each customer, sales and inquiries will be recorded. For each outlet, problems in selling ORT solutions and containers will be recorded. As needed, young school-leavers will be hired to assist non-literates in data recording.

  The data from medical sites and sales outlets will be collected every fortnight. They will be used to adjust SOCM campaigning and MOH distribution of ORT supplies and information.

- NON-PARTICIPANT OBSERVATION: During the second and the fifth months, a roving anthropologist will accompany different VHWs on their village rounds. Another will go with the MOH mobile film crews.

  The observers will not participate in the VHW's demonstrations or in the MOH film presentation. They will identify themselves with their university not with the MOH. They will talk to leaders, healers, and mothers. In the first visit, they will focus on traditional treatments, reasons for opposition to new medicine and ideas, obstacles to visiting the MCH. In the last visit,

they will focus more on ORT communication: knowledge of procedures, sources of information, reactions to messages, village gossip, reasons for resistance, personal experiences, inquiries and purchases, children's deaths.

The information from these observations will be used for fine-tuning communication and programming. The study will conclude with a set of positive or negative recommendations for replicating the campaign on a larger scale in the region.

c. Evaluating Effects: After one year, if all has gone well, we will return to the field to estimate the effect of the project on introducing ORT to villages, increases in villagers' knowledge, favorability, and use of ORT, their exposure to and reception of the SOCM campaign. Too, we will critique the efficiency of distribution of ORT supplies and the appropriateness of their use in the villages.

Although these may seem like simple questions, the answers may not be so good because one year is not much time for achieving behavioral changes.

o NON-PROBABILITY SURVEY: Interviewers will return to some of the same villages visited previously and go to some new villages -- matched to be similar. They will ask the same questions as asked in the first survey of seven leaders and 14 mothers. They will also ask questions about the ORT campaign.

Together with the anthropologists' report, the monitoring reports from medical facilities and from retailers, the findings of this survey will be the basis for the final report on (1) impact of the SOCM campaign on the demonstration area, and (2) recommendations for or against broadening the campaign.

d. Summary: The above is an ambitious RLM's strategy. Ambitious because there are several activities, but not ambitious in the time or cost for any one of them.

In the short time we had (six months), it was necessary to get off the ground quickly. The key informants, focus groups, and non-random survey were quick-turnaround projects. Once in the field, it was necessary to keep a running account of the SOCM campaign's progress and reactions to it. Therefore, we monitored health facilities and retail outlets. And we kept a vigil on village-level responses and problems, through anthropological insights into the villagers as well as into the activities of the MOH's village-level communicators: the VHWs and the film crews.

A repeat survey of some "old" and "new" villages was necessary for evidence on "movement" in the rural areas and to make final recommendations on ways of improving communication, distribution, and impact.

If it is decided to replicate the campaign elsewhere, we would not wish to continue the same level of activity. But we would try to persuade the MOH to carry on with a similar activity. At the very least, we would help convene a panel of experts from other ethnic areas, to get ideas on how the campaign and its M&E could be adapted for use in other regions.

2. EXAMPLE: Integrated Services and Community-Based Distribution:

This problem is more complicated than the ORT example. Here, many "health" services are bundled in delivery: health, water and sanitation, nutrition, family planning. The GOH has decided to integrate the village-level activities of different departments in the MOH. This new package of services will be administered through a new MOH office: the Integrated Area Development Authority (IADA).

The IADA program has these general objectives (the Log Frame shows specific indicators):

- The Goal is to help improve the quality of life in rural villages and the productivity of their populations.
- The Purpose is to increase rural communities access to and use of integrated GOH health services.

For gauging program impact, the GOH has baseline indicators for a sample of 100 villages on public- and private-sector health facilities and utilization; village health standards, practices, and access; mortality, morbidity, fertility and birth rates; prevalence of malnutrition and diseases; locations of potable water sources and community latrine and sewerage projects; employment and worker productivity.

All in all, the data picture is very promising. The sample appears to represent the rural areas. The only drawback is that, on the average, for any given service no more than about 15 percent of the would-be beneficiaries use the service. However, low utilization is thought due to the unintegrated and uncoordinated delivery of the past.

The baseline data will provide the "before" measure for an evaluation planned for the fifth year of programming. The existing health reporting system will periodically produce status reports.

While a 50-village evaluation is planned, neither we nor the MOH has committed other funds for pre-project research or for on-going monitoring and evaluation. MOH officials and the Mission Director believe that further data collection is unnecessary.

The new IADA package will be delivered by the same cadre of VHWs and FP workers who have been working in villages for the past 20 years. The 2,000 members of these two services will be combined into a single service of Public Health Workers (PHW).

In addition to hiring and training 1,000 new PHWs, the government will recruit and train a village force of 6,000 female Village Health Workers (VHW) who, without pay but equipped with basic medical supplies and IE&C materials, will assist the PHW on his/her regular visits to the village. Between visits, the VHW will be responsible for:

- Nutrition: Assisting distribution of food supplements; improving record-keeping at the food center and any local Food for Work or School Feeding programs; teaching mothers how to keep growth monitoring charts; weighing children monthly; motivating mothers to breast-feeding and proper weaning practices; holding nutrition education classes.

- Health: Helping mothers keep vaccination records and appointments; finding neighbors to care for mother's children when she has to go to the MCH; treating minor injuries and referring more serious cases to the nearest medical facility; giving lectures and demonstrations on sources of communicable diesases and on preventive health practices.

- Family Planning: assisting the clinic nurse and encouraging the village midwife/birth to use modern practices; motivating wives to use contraceptives and spacing; lecturing teenagers and young marrieds on problems of high birth rates; distributing male and female contraceptives without charge.

- Water & Sanitation: encouraging women to draw water from safe sources; giving lectures and demonstrations in water-boiling and in proper methods of food handling, preparation, and preservation; motivating families to dig latrines and drainage conduits, clear excess water and correct seepage.

Naturally, the VHW cannot do all of these things equally, so she is instructed to do a little of everything and a lot of that which is needed most.

After two years, the high hopes for the IADA program are evaporating. Village-use rates for services have regressed below the 15-percent level, nearly one-fourth of the VHVs have quit, the incidence of malnutrition and disease is up from two

years ago, and there is flaring antagonism within the PHW corps between members of the two erstwhile health and family planning services.

Studying the problem with our AID and national colleagues, we surmise that:

- PHWs: Within the PHW corps, ex-health workers are not adequately trained in family planning services, and the ex-family planning workers are not adequately trained in health services. And neither has had much training in nutrition. Thus, each is concentrating on what s/he does best and scapegoating the other for gaps in services.

- VHWs: These much-maligned young women have been given too much to do and responsibilities higher than their trained capabilities. Further, in using their own discretion about which services to render, they, too, are providing only those they know, and frustrating village women who have other problems. Moreover, they are unsuited for distributing condoms and lecturing village men on waste disposal.

These are guesses, but from our experience probably pretty good ones. However, we need some field data and have only modest funds available. Given the lack of money, we plan the following RLM's studies:

- EXPERT PANEL: Since we lack the resources to go to the field, we will try to bring the field to us. Two expert panels are planned for a day and one-half each, and a third joint panel is planned for one day.

  Invited to the panel are mid-level professionals with experience living and working in rural villages. These include, for example, IADA program managers and GOH extension service managers, local anthropologists and urban sociologists, local researchers, health facilities staff, and field managers for commercial firms. About 30 people need to be identified to form two equivalent panels.

  1. First Panel: Six to eight panelists will be chosen for one panel of men and for one panel of women. The groups will be divided. Each panel will be given the same problem and time schedule as follows:

     -- 1st Day Morning: Free discussion, guided by a topical outline, of village conditions, health-related problems, villagers' needs, responses to GOH services, prevailing attitudes and practices, and other problems related to entering and working in villages.

-- 1st Day Afternoon: Coordinated discussion aimed at producing a plan for dealing with the conditions and problems discussed in the morning. The plan is a recommended modus operandi for PHWs and VHWs (a) entering the village, (b) eliciting leadership and community support, (c) describing services and activities, and (d) working in the village.

-- 1st Day Evening: The AID-GOH staff merge the two plans produced by the male and female groups.

-- 2nd Day Morning: A free-discussion plenary in which both male and female panelists critique and improve the consolidated plan. The product is a overall plan drawn to general satisfaction.

2. Second Panel: The same procedure as above, during the same week as the first panel. Following this panel, the AID-GOH committee will consolidate the plans of both panels into a master plan.

3. Third Panel: All panelists will be reconvened about two weeks later -- to give them some time to divorce themselves from personal investments in their own recommendations. In the morning, the panelists will critique the master plan. In the afternoon, they will fine-tune the final plan.

PROJECTIVE TECHNIQUE: For a three-day "seminar," the MOH has agreed to bring in the PHWs and VHWs who are working in 20 (a purposive sample) of the 100 villages for which baseline data exist. These 20 will be included in the 50-village evaluation planned for the fifth year.

To keep the groups homogeneous, the PHWs and VHWs are segregated. Each group of 20 is divided into two groups of 10. Since we, ourselves, don't have enough staff to conduct all sessions simultaneously, we work with the PHWs one day and the VHWs the next. Then, we bring them together on the third day.

Each group of 10 is handled the same way. Each is given a number of "village situations" and asked to project themselves into or "play the role" of the characters in those situations.

-- Morning Session: As a basis for role-playing, each group is asked to name all types of villagers who are signfificant for their work in the village. (The list -- omissions and emphases -- will be compared later for all groups and for that of the Expert Panel).

-- Then, groups are given different situations in the village related generally, at first, and then more specifically to their work. Small teams of two, three,

46

-- and four "actors" will take the role of, e.g., village headmen, elders, councillors, mothers-in-law, wives, mothers, teenagers, midwives, etc. as well as different officials like themselves -- PHWs, VHWs, IADA supervisors, MCH doctors, visiting nurses, water drilling engineers, Ministry of Information motivators, and so on.

The first couple of plays will be run with only general critique, to warm up the participants. Then, situations will become more specific and critique more active for problems involving introducing and sustaining services in nutrition, health, family planning, and water and sanitation.

The series of mini-dramas and critiques should give a field-level view into village needs and demand, types of communication and service problems, limitations of training and materials, areas of misunderstanding and misperception, etc.

-- Afternoon Session: The groups will do a couple more plays to reacquaint them with the problem and their feelings. Then they will be tasked to produce a "How to Cope" plan of action, detailing what PHWs or VHWs have to know or do to work successfully in villages: how to introduce themselves, get support, motivate acceptance of new practices, conduct presentations, get local assistance, counter suspicion and hostility, overcome ignorance and superstition, form cooperative groups, handle technical and unfamiliar aspects of their jobs, report their problems, etc.

-- Third Day: Now all participants will be brought together. The two consolidated plans of action for PHWs and VHWs are presented by the staff. Then, the plenary is divided into smaller working groups of about seven people. Each group is given several hours to critique the plans, making modifications as they see fit.

After this seminar, the AID-MOH committee produces a final plan of action for PHWs and VHWs.

o SURROGATE INTERVIEWS: As our last effort, we will "test" the validity of our plans of action as produced by the Panel of Experts and Projective Role-Playing. For this, we want to get the reactions of "villagers" as to how outsiders should enter and work in villages.

Knowing the high rate of emigration to the city, we know that many residents are recently from the countryside. Since we cannot afford to do a large house-to-house survey, we send small teams of interviewers to places where people congregate: markets, bus/truck stops, train stations, universities, nurses dormitories, army barracks, government offices, commercial buildings.

The plans of action are condensed into a series of "most important" questions. Some 30 people, who are temporarily in the city or have lived in villages within the past three years, are interviewed as surrogates for their villages. Different features of the action plans are described, and the surrogates tell the likely reaction of people like themselves in the village.

The surrogates are a check on our models. We are looking for any areas where consistently the surrogates are at odds with the action plans.

Comparing the results of the three Quick-Queries, the AID-MOH working committee produces a final report of recommendations for (1) Training and Retraining PHWs and VHWs, which concentrates more on proper methods and communication in entering and working in villages, as well as technical expertise; and (2) Monitoring at all levels of supervision and activity, which includes building into the existing medical reporting system more and frequent indicators of PHWs and VHVs presence, activities, and problems in villages.