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The EVALUATION Project

**Service Delivery Working Group
Minutes of Meeting: December 9-10, 1992
Held at: The Vista Hotel, Washington, DC**

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**Service Delivery Working Group
Coordinated by The EVALUATION Project
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Those present at the meeting:

Jane Bertrand	Tulane/EVALUATION
Lisanne Brown	Tulane/EVALUATION
Craig Carlson	R&D/POP/FPSD
Leslie Curtin	R&D/POP/FPSD
Alain Damiba	JHPIEGO
Tim Farrell	DA/PROFIT
Karen Foreit	The Futures Group/EVALUATION
Karen Hardee-Cleaveland	Family Health International
Steve Hawkins	R&D/POP/CPSD
Judith Helzner	IPPF/WHR
Roy Jacobstein	R&D/POP/IT
Terry Jezowski	AVSC
Mihira Karra	R&D/POP/FPSD
Jim Knowles	The Futures Group/EVALUATION
Mary Luke	CEDPA
Therese McGinn	CARE
Tom Morris	R&D/POP/FPSD
Gabriel Ojeda	PROFAMILIA
Santiago Plata	The Futures Group/SOMARC
Estelle Quain	R&D/POP/IT
Luis Rosero-Bixby	CELADE/Costa Rica
Jinny Sewell	R&D/POP/FPSD
Janet Smith	The Futures Group/OPTIONS
Krista Stewart	R&D/POP/P&E
John Stover	The Futures Group/ EVALUATION
Marcia Townsend	IPPF
Amy Tsui	CPC/EVALUATION
Anne Wilson	R&D/POP/FPSD

The agenda is attached as Appendix A.

Introduction: This was the third meeting of the Service Delivery Working Group (SDWG). As outlined at the first meeting in January 1992, the SDWG will look at three main areas of service delivery: quality, quantity and cost. Quality was the first area of focus and was discussed at the second meeting of this group in June 1992. The purpose of this meeting was to review the work completed on quality of care by subcommittees of this group and subsequently to identify areas to further explore in relation to quantity and cost. The specific objectives related to these three areas are attached as Appendix B.

QUALITY OF CARE

Review of the Indicators: The group reviewed the quality of care indicators developed and subsequently revised by members of the Quality subcommittee (the list can be found in the minutes from the September 10, 1992, Appendix B). The group decided that all 49 indicators should be retained for now, as we don't yet know which are the 10 most useful indicators.

There was considerable discussion related to the indicators, such as how to determine which are most useful, how they should be measured, and who should use them. One group member suggested that at a program level, implementation issues may determine which indicators are most important and most feasibly measured. Another group member felt it was still unclear how we should get programs to adopt these indicators and how should they be interpreted at the program level. There was also a question raised as to whether these indicators should be measured at one point in time or periodically using an MIS.

The AID representatives attending the meeting stated that AID shares the group's interest in quality, but they echoed the group's concern of how to measure it. They also wondered how each organization is currently dealing with quality. There was a question as to whether CAs should be capable of reporting on the results of their work in the area of quality regularly or perhaps on an annual basis. Several group members pointed out that this would require special studies, as the majority of the indicators escape routine service statistics. While it may be possible to measure these indicators nationally, it seems unlikely to be done at the project level in the near future. However, this may not be such a problem, given the AID's current focus on country-level program impact.

The group outlined the possible uses of the indicators:

- For process evaluation
- For funding decisions
- For improving the service-delivery program

All group members agreed that quality should be assessed periodically. Empirical problems remain as to how to add up all the pieces to assess overall quality and how to compare countries on the basis of the quality of the programs. It must also be noted that most of the indicators are very subjective.

Measuring Quality of Care: Panel Discussion

The purpose of the panel was to see how the indicators have been or are proposed to be measured in the field. Each panel participant was asked to present the indicators that were used, the design for their use, and the problems encountered.

I Alain Damiba (JHPIEGO, previously with SEATS) presented a study on the impact of quality on the use of services in Côte d'Ivoire. The goal of the study was to assess the possibility of correlating continuation rates, reflecting the use of services, with the

quality of those services. (Appendix C: Assessing the relation between quality of care and the utilization of family planning services in Côte d'Ivoire.)

Study design and methods: The design for the study was based on the situation analysis design developed by the Population Council. The following methods were used: client interviews (exit interviews), interviews with staff, observations of planning consultations, and inventory of facilities. The quality of care indicators developed by this Working Group were added to the original situation analysis tool.

In order to look at the impact of quality on continued use of services, the researchers retrospectively analyzed the data collected in that situation analysis. On a zero to 100 percent scale, the researchers summarized each of the 11 elements of quality. An average score was obtained for each clinic by adding the score for each element and dividing by 11. Ten thousand client forms were selected randomly to assess continuation rates by clinic and method. This yielded the percentage of clients who abandoned the clinic. The researchers looked at those clinics which scored the lowest and those which scored the highest.

Limitations: This study did not take into account those people who changed clinics; if a client did not return to the clinic where she started, she was considered a dropout. Secondly, the sample size was small due to the small number of facilities and users in Côte d'Ivoire, and the situation analysis design where researchers spend only two days at each clinic. Third, this effort did not accommodate a total quality management type of exercise. Fourth, most of the items were dichotomous, preventing an assessment of trend and/or the magnitude of difference between the different levels of a variable. Fifth, the interviews of some clinic providers were conducted by the same people who did the observations, which could result in some bias. Sixth, there was no direct measure for "appropriate method provided"; the researchers had to combine several variables in order to assess this item. Lastly, the researchers were unable to determine the appropriate weights for the variables; therefore all variables were given equal weights.

Discussion: This presentation raised some issues about the relationship between operations research and service-delivery. The group members wanted to know what is being done with those clinics that scored low on quality: is SEATS or some other organization following up to help such clinics provide better services? This generally raised the question of how information should be fed back to managers. Group members also wanted to know how the quantitative assessment correlated with managers' perceptions of their services. The researchers stated that the correlation was high in the IPPF affiliates and moderate for the remaining clinics.

II Terese McGinn (CARE) presented a new supervisory tool CARE has developed to measure quality of services. CARE's population program, which began in 1991, currently has eight AID funded countries, although there are other projects that are funded by other agencies. In each project there is a manager working with the Ministry of Health or some other counterpart. Quality of care is written into the goals of the projects, as CARE has always felt that this should be an objective of a program. Togo and Peru are currently the focal points.

At a workshop held in June of 1992, the indicators developed by the Quality subcommittee were used to develop CARE's quality of care tool. The tool is designed as a supervision tool or protocol for supervisors when they visit individual sites. It is also used as a management tool at the country program level and the headquarters level. An overall score is obtained on a percentage basis for each clinic. (Appendix D: CARE quality of care protocol for use during supervision visits (draft).)

The tool is used by a supervisor who spends the entire day at the clinic. In the morning, the supervisor observes the clinic activities and meets with people; and in the afternoon he/she conducts a work session with the staff to develop solutions to the problems. The problem-solving is a collaborative process, where the group tries to identify persons to follow up on actions needed. This is very similar to the COPE strategy developed by AVSC where collaboration is also very important.

Issues in quality of care measurement and management: Several problematic issues were identified in the use of this tool and in the measurement of quality of care more generally. The tool has a built-in rating scheme, but it is unclear exactly what it means and whether the dichotomous (yes/no) format is useful. A second issue is the weighting of the elements and the indicators. Right now they are all given the same weight, but this needs to be refined. There's also a question as to whether the tool is valid for both clinic and CBD sites. Currently the tool is set up for clinics, but there's no reason why it cannot be adapted for CBDs. Additional issues include: (a) the source of the information on quality; is it reliable? (b) the method of data collection, whether it should be qualitative or quantitative, (c) red flag scores: should they be used to identify those clinics that are in desperate need of improved services? A final issue is the validation of scores and indicators.

III Gabriel Ojeda (PROFAMILIA) presented a study on the clinical and surgical quality of care in eight PROFAMILIA clinics. This assessment was based on the six elements of the Bruce framework. The objective of the study was to collect information on clinical and surgical users and from service providers on these six elements. A second objective was to develop a model to be used as an evaluation instrument for quality of care. The eight clinics chosen were representative of the size of the different clinics within PROFAMILIA. The methods used were quantitative and qualitative. Ojeda presented the main results of the study and concluded the following:

Conclusions:

1. It is not easy to determine the best way to measure quality of care indicators.
2. PROFAMILIA found that the following factors are related to good quality services:
 - (a) From the user's perspective:
 - good interpersonal skills
 - complete information
 - instructions about IUD insertion and sterilization procedures
 - instructions about steps to follow in the clinic
 - privacy during orientation/motivation, doctor's office and recovery room

Note: availability of additional services and technical competence of providers were not clearly related to the perception of quality of care among users.

(b) From the service providers' perspective:

- good, complete information
- administrative ability
- good interpersonal relations
- manual of procedures to follow
- sufficient personnel
- privacy
- convenient clinic schedules for the patients

Limitations: The sample was not probabilistic, therefore it is not possible to generalize the results. If the researchers could do this study again, they would try to contact more drop-outs, as this is the main source of information on poor quality of care.

Discussion: Results of this study will be analyzed clinic by clinic and will be presented to each clinic along with some recommendations and/or problem-solving sessions. It took the researchers less than one year from questionnaire development to results, to complete this study. This is a large study; the question was asked whether a smaller questionnaire could be developed that could be used on a more regular basis.

IV Jane Bertrand (Tulane/EVALUATION) presented the Morocco Quality Study. (Appendix E: Indicators of quality of family planning services in an ongoing study in Morocco.) This study is currently at the data collection stage; thus only the design was presented. The research is being done in four provinces; facilities were chosen from the clusters used in the 1992 DHS. The researchers took the 49 indicators developed by the Quality subcommittee and determined which were covered by the situation analysis tool; others were then added. They also conducted five different focus groups with different service providers and non-users from the community. This was a special study that could not be conducted by clinic personnel on a regular basis, but could be done periodically. The researchers plan to work on scoring issues, admitting that the process is very arbitrary.

A major challenge for the study has been the number of data collection instruments to administer and analyze. Measuring technical competence is a major weak point, especially with multiple contraceptive methods and different categories of personnel involved in delivering services. In this respect it is important to look at national standards and see how they are applied at a clinic level.

Update on Total Quality Management (TQM) meeting: Karen Hardee-Cleaveland presented an overview of the TQM meeting that was held on September 23-24, 1992, in Washington, D.C. The meeting provided a forum for the family planning community to learn about TQM and how it could be used to assess quality of care. The meeting covered issues such as the relationship of quality of care to impact, to cost, and to medical barriers. At the meeting, participants were exposed to and responded favorably to many tools that measure TQM and quality of care. What is now

needed is some kind of application of those methods. Several group members noted that these tools go beyond service delivery to other functional areas. The group has suggested that these tools should be distributed to all CAs through the Office of Population mailing.

One of the main accomplishments of the meeting was to clarify that TQM is one of many methods available to improve the quality of care and that its use is not being mandated by AID. Another important result of this meeting was the realization that much of TQM reflects common sense. However, a more practical application of the TQM method is needed.

The next steps on quality:

- 1. Testing of indicators:** The group felt it would be very useful for every service delivery CA to start using the indicators and monitor the collective results. We should allow 18 months to 2 years for the testing of these indicators.
- 2. Linkages:** We need to build linkages between services and other divisions of the Office of Population, in particular operations research and training. In addition, coordination should be encouraged with other areas of health. The EVALUATION Project should send a letter to all CAs encouraging such linkages. An AID sponsored meeting bringing different groups together to share information on a large variety of topics related to quality was also recommended.
- 3. Measurement issues:** Management strategies need to be developed on the use of the tools and the indicators. In addition, work needs to be done on which tool is best suited for which indicator, and how to most effectively use the tools. The techniques also need to be widely disseminated, and the group felt that The EVALUATION Project should coordinate efforts.
- 4. Quality indicators for other service delivery mechanisms:** The indicators developed by the Quality subcommittee are geared towards clinics. The group decided that a subcommittee investigate how the indicators apply to other service delivery approaches such as community based distribution (CBD) and commercial social marketing (CSM). The subcommittee is expected to present its findings at the next full meeting of the SDWG in April
- 5. Reporting requirements** The reporting requirements for quality of care by CAs needs to be defined in an annual work plan. The Family Planning Services Division (FPSD) plans to send a letter to all service-delivery CAs regarding the reporting requirements on quality. A plan should also be developed to share this information with other divisions.
- 6. "Integration meeting:** The group recommended that an "integration" meeting be planned to share information with other divisions or other working groups such as planning, operations research, and management to what might be called an "integration" meeting. In addition, the group concurred that a conference on quality be held in 18 months to 2 years to assess progress to that date.

COST

The session on cost began with a panel discussion on the work that has been done on cost analysis in AID-funded family planning programs in the past and possible future directions for this group. Presenters included Steve Hawkins, John Stover and Jim Knowles.

I Steve Hawkins discussed the work FPSD has done in the past on cost. Between 1989 and 1991, FPSD conducted annual surveys on contraceptive units distributed, the number of users and new acceptors based on service statistics. With these data they calculated a cost per user or a cost per CYP, by comparing the money given to CAs with their units of output.

These numbers are controversial and sensitive, and they need to be used very carefully. There might be a tendency for someone to say that if an organization has spent too much money per CYP, they're out. But the numbers were not used in that way. The cost per CYP generally ranged from \$10 to \$50. The numbers were used to try to determine the reasons for the variation in the results obtained. In 1991 the FPSD chose not to calculate cost per CYP because they felt they didn't know enough about how to use the results.

The driving force behind the collection of cost data is to maximize investments within AID; however, caution needs to be exercised in using these numbers. It is interesting that total CYP generated by the Office of Population projects declined from 1989 to 1991, largely because Colombia graduated from the AID system. Colombia is no longer eligible for AID funding and CAs couldn't count their CYP. At the same time there was more emphasis on Africa, where the contraceptive prevalence and CYP are very low. Nevertheless, from a global perspective CYP has increased (i.e. including Colombia and other countries not receiving AID support). This raises a methodological problem in calculating the cost per CYP. An additional issue with cost is sustainability. Is it possible to calculate a cost per sustainable clinic, for example? It may be better to use more than one measure per cost. We can't always use CYP, since demands on a program change over time.

II John Stover discussed the activities of a previous working group on cost, the Cost Analysis Group, coordinated by John McWilliams. This group tried to develop a standard costing procedure. Their focus was on standardizing cost measurements and producing line items for a pro forma budget. The group tried to establish standard definitions for each item, such as investment versus recurring cost.

The main contribution of this group was to focus attention on cost as an important topic and to raise AID's awareness of cost issues. However, there were several problems with the group: it was too large to effectively tackle the complicated issues that arose; the objectives of the group were not very clear; and no one was able to devote full-time to the group to complete work between meetings. There were many good discussions, but little in terms of usable results.

The SDWG emphasized the need to clarify what the interest is in cost and for whom? Another issue in assessing cost is that the strategies for program supports have changed. Technical assistance for example is a CA activity that is very hard to assess by CYP.

III Jim Knowles spoke on issues relating to cost estimates. (Appendix F: Some uses of cost estimates.) The first requirement is a clear idea of why one is doing a cost analysis. Secondly, it is very important to have common definitions and common methodologies; otherwise it will be impossible to compare results. For example, a common measure is cost per birth averted, but it is not clear how this should be measured. In sum, it is important to look at the purpose of the analysis, the outputs, current approaches being used, and the appropriateness of imposing standard definitions.

One application of cost analysis is to monitor cost per unit of output over time. In fact one could look at cost per any indicator. Sustainability is a particularly difficult but important area with regard to cost. One possibility is to examine the percent of non-AID funding of an organization, but this cannot be directly related to the level of independence of an organization, as they may be receiving funding from another donor. IPPF is on the forefront in analyzing sustainability with a focus on the source of funding. They are particularly concerned with this issue because they have programs in several countries where AID will soon be leaving, so they have a very keen interest in strategies to make these programs sustainable.

Jinny Sewell (FPSD) presented the Division's interests in cost. AID has limited resources, so it is important to analyze where the money goes and how it is best allocated. FPSD outlined three areas for future work on cost analyses:

1. Improved understanding of the relationship between resource allocation and impact.
2. Improved definition of terms.
3. Increased coordination among CAs.

Discussion: Some group members noted that it may be easier to measure the cost in social marketing projects than in other service delivery mechanisms. One problem with the literature on cost is that few good studies have been done; even with those, it is often unclear how the cost analysis was done. Barbara Janowitz of FHI has compiled a cost manual which will become available in the near future. PROFAMILIA is one of the leaders in cost analysis.

Why aren't more cost studies done? One reason is that the methods are difficult. Second, organizations worry about looking bad in the area of costs. And third, there is no standardized methodology for cost analyses.

Several group members argued that sustainability cannot be divorced from cost and that we should perhaps broaden the discussion of cost to include sustainability. Also, in the field it is important to raise the awareness of managers and other staff to cost issues.

The CAs represented at this SDWG meeting expressed interest in the following aspects of cost:

1. **Literature review:** Conduct a literature review, including an assessment of all the tools available to measure cost.
2. **Cost workplan:** Propose how cost analysis could be incorporated into a work plan such as the AID annual work plan.
3. **Linkages of cost and sustainability/cost and quality:** Investigate the relationship of cost to sustainability and quality.
4. **Awareness on cost issues:** Develop awareness-raising strategies.
5. **Catalogue of tools:** Assemble a catalog of tools for cost analysis.

To conclude the discussion on cost, the group decided that (1) a planning committee should be formed to formulate objectives for the group on the issue of cost and (2) this group would then put together a mini-seminar (1-2 day meeting) to inform the service delivery community on the state of the art in cost analysis. One possible resource is the UNFPA manual on tools to measure cost.

The Management Working Group: Given the overlap of management and service delivery (especially as relates to cost and efficiency), The EVALUATION Project felt it would be useful to discuss plans for the Management Working Group, due to hold its first meeting in early 1993. One of the purposes of this discussion was to identify potential overlap between the the Service Delivery Working Group and the Management Working Group.

Management was defined as a system of procedures that support quality, cost and quantity. Several group members questioned whether we should separate these areas from service delivery or whether instead the Service Delivery Working Group might simply ask MSH to join the current group. Some participants felt that the work on using cost data and raising awareness about cost are management questions and perhaps costs would be addressed by the Management Working Group rather than this group. The EVALUATION Project staff will be responsible for following up on these issues.

QUANTITY

Introduction: Jane Bertrand introduced the issue of "quantity" in the evaluation of service delivery by placing it within the larger picture of the conceptual framework that has been developed by The EVALUATION Project (see Appendix G). In Figure 1 the family planning supply factors (seen in detail in figure 2) lead to the service outputs (access, quality and program image/acceptability). These outputs lead to family planning demand and service utilization. Contraceptive practice and ultimately fertility decline may then follow. The purpose of measuring quantity at each level is to determine the impact of the family planning supply factors and service outputs on demand, service utilization and contraceptive practice.

During this session on quantity the group reviewed the following topics: accessibility, service utilization at the program and population levels, and unmet need.

Accessibility: Dr. Luis Rosero-Bixby, a demographer working for CELADE in Costa Rica, presented issues in the measurement of accessibility. Dr. Rosero commented that much of the literature focused on the problems with accessibility rather than on progress to date in this area; moreover, a number of researchers have only considered physical access and not other factors such as cost barriers. In general, the complexities of measuring accessibility have been underestimated. (See Appendix H: Access to family planning services).

Discussion: Some participants questioned whether the cost of services and the paying capacity of users are included in the access measures. Other group members suggested that there may be cultural reasons that clients may go farther away than necessary, perhaps because they don't want to be recognized. Dr. Rosero again noted that because the focus of accessibility has been on physical access, these other factors have received less attention (especially cultural accessibility).

Other areas that group members felt should be considered are (1) medical barriers; (2) user friendliness (which may be part of the client provider exchange); (3) differences in perceptions of access across groups: e.g., young people may not feel comfortable going to clinics with married women; male users may have specific barriers that are different from women; and (4) outreach within the facility: are women attending an integrated clinic for MCH services are also told about the availability of FP services? It would also be important to look at the relationship of access to the number of clinics in the country.

Four dimensions of accessibility have been discussed in literature:

1. Physical access.
2. Psychosocial access.
3. Economic access, including costs.
4. Administrative or managerial access

Until the present, we have not been able to conclusively demonstrate the relationship between access to services and contraceptive behavior, but there is great potential in this area with the Geographical Information System (GIS) method.

Group members suggested that service delivery CAs could play an important role in collecting data on the geographical location of facilities. The development stage of a program also needs to be considered, as the accessibility problems may differ with each stage.

Other suggestions made by the group include: the development of a list of indicators for the different dimensions of access; the compilation of a tool book on access; a guide on the use of maps which could include a range of information about a given clinic, such as the number of providers and average number of visits per day; and the exploration of the relationship between access and quality.

Summary of access. It was proposed that the group develop a conceptual framework for access, similar to the Bruce framework for quality, to be circulated to and reviewed by members of the SDWG. This framework should also define the relationship between access and quality. The group agreed that The EVALUATION Project staff

should coordinate the effort to develop this framework, including indicators and a template for a map. It would also be useful to attempt a mapping exercise and assess what people are currently doing in this area.

Service utilization at the program level, Jane Bertrand and John Stover

Two indicators of family planning program output were discussed: new acceptor and couple-years of protection.

New Acceptor Three definitions of new acceptor were proposed:

1. New program acceptor: a first time acceptor of any program method (never used any program method before).
2. New method acceptor: a new interval acceptor of a particular method (may have used methods before, including this method, but was not using any method at the time of acceptance).
3. New method and source acceptor: a new interval acceptor of a particular method at a particular source (may have used methods before, including this method, and may have used this source before but was not using this method and source at the time of acceptance).

The "best" definition will vary, depending on the use of the data.

Those attending this meeting were asked how their organization defined new acceptor. PROFAMILIA considered a new acceptor one who goes to the PROFAMILIA clinic for the first time. Those who change clinics within the PROFAMILIA system are not counted again. However, there could be duplication if a user was previously attending a public health clinic and then switched to PROFAMILIA, since that person would be considered a new user. AVSC to date has not measured this indicator but plans to in the near future. Pathfinder (represented by Craig Carlson, Pathfinder CTO) uses the new program definition, i.e., the user is new to the Pathfinder -supported project. CEDPA uses new to the source, although this depends on the country. CARE also defines new user as new to site. SOMARC looks at market share. From this discussion it was clear that it is very important to qualify the term new acceptor and clearly state what is being meant by that term.

Discussion: Several group members felt that the definition of a program method was unclear: is this new acceptor an individual who has never used a program method; is a program method the same as a modern method; how are women who change clinics counted (i.e. if a woman changes clinics, but continues to use the same method, is she a new acceptor)? Some argued that this definition may result in some non-comparability of data across countries because different methods are offered by different programs. Additional problems that were raised by the group are how to

account for Natural Family Planning (NFP) and Lactation Amenorrhea Method (LAM); should they be considered modern methods or not? In general, group members found this discussion very useful and recommended follow-up on this topic at the next meeting in April.

Discussion of CYP by John Stover. In January of 1991, members of the Task Force for Improved FP Program Performance Indicators reviewed and endorsed a new set of conversion factors for CYP; however, these factors were not based on empirical data. Thus, The EVALUATION Project decided that a thorough review of the measure would be important and is therefore conducting a study on CYP. The study is looking at empirical evidence for the assumptions underlying the conversion factors, specifically duration of use, coital frequency, wastage at both the system and client levels, consistency of use, and the non-contraceptive use of condoms (mostly for AIDS prevention).

Discussion: Several people pointed out that CYP is intended to measure "production," not fertility impact. The question remains: can it be used as a proxy for fertility? Several participants argued that AID is concerned with impact and often uses CYP to look at the performance of one program over another. Therefore, it's important to try and improve this measure. If CYP is to be used as a production measure, it may be appropriate just to adopt the existing conversion factors and not worry about the impact of CYP. However, if AID is going to use CYP as an impact measure, it is worth fixing it. Another question is whether there are other measures of fertility and contraceptive use which would be substituted for CYP.

The AID 3-Factor Index by Leslie Curtin. This meeting provided the opportunity for FPSD to explain how priority countries are selected. Within the Office of Population at AID, a three-factor index has been developed to identify priority countries. The three factors are:

1. The level of unmet need
2. The level of high-risk births, defined by parity and age
3. The number of new users needed to reach a TFR of 2.1, from 1990 to 2025.

It is the third factor that is new and was of particular interest to this group.

To determine the priority countries AID aggregated the data for each country and then ranked them. The top 20 countries are considered priority countries. The top five countries are India, Nigeria, Pakistan, Indonesia, and Bangladesh. The third factor can also be useful for country level planning, although discontinuation rates also need to be considered.

Service utilization at the population level by Amy Tsui.

The quantity of services refers to the quantity of use (contraceptive use) and the quantity of service utilization. (See Appendix I: Measures of the quantity of services.)

There are three sources of data for the quantity of use:

1. Commodity distribution
2. Records of client visits
3. Sample surveys

The advantages and disadvantages of each of these methods are outlined in Appendix I.

The contraceptive prevalence rate: The "contraception prevalence rate" is not a rate; it is a proportion which shows the frequency of an attribute within a population. A rate is an incidence measure which indicates the risk of an event to an exposed population. A true contraceptive rate would be contraceptive use per hundred coitions under conditions of pregnancy risk. However, we generally don't measure sexual relations, which would be necessary to obtain a rate. Rather, the populations using services at a given point in time are measured. Therefore contraceptive use is measured in terms of current contraception (prevalence). The relationship between the contraceptive prevalence rate and the crude birth rate is strong at the aggregate level across countries, but weaker within countries. The prevalence rate is a gross measure that does not distinguish between contraceptive use due to the program effort versus other factors.

The following factors can modify the contraceptive use-fertility link at a programmatic level:

- Spacing versus limiting motives
- Method mix
- Recognition of traditional birth control practices
- Method choice and discontinuation or switching of methods.

Measurement errors are generally a result of respondent bias, such as under-reporting of male methods and inaccurate recall.

The quantity of service utilization is important in evaluating the role of organized family planning effort by distinguishing between between contraceptive use or fertility outcome due to the program effort versus other factors. However, measuring program service utilization has not been adequate in the past.

The EVALUATION Project is encouraging efforts to improve program based statistics, to exploit survey opportunities to simulate an experimental design for impact evaluation, and to develop a program evaluation module to look at the patterns of service and the nature of psychosocial cost to contraception. The goal is to link service utilization data with individual level data.

Tsui stressed the importance of using longitudinal designs when possible. This could be a sub-set of an original sample such as a DHS sample. This approach constitutes a

much more powerful design (i.e., to measure change within a group that was originally measured). Here one can see a change within a service facility or a change within a household.

Discussion: Some group members wondered whether too much money was going into research, given the cost of doing studies, especially since psychosocial factors are very hard to measure. Tsui responded that a panel study would be able to assess the gap between what a program is doing and what it is supposed to do. Longitudinal studies could allow us to link quality to impact as well.

Unmet need, by Karen Foreit.

The Westoff definition of unmet need has become the standard in the population field. The model allows the separation of the need for spacing and need for limiting. Foreit has added a new dimension to the model for unmet need: the appropriateness of the method that women are using or intend to use. In this model, the definition of appropriate depends on the characteristics of the woman. There are four paths to unmet need, as evident in the paper in Appendix J: Unmet need: Approaches to measurement based on the DHS.

The main difference between the Westoff and the Foreit model involves amenorrheic women. In the Foreit model amenorrheic women are now included in the non-pregnant category, but at future risk of contraceptive need. It is also important to consider pregnant women who later will need contraception. One limitation of this methodology is that it only provides a snapshot in time and doesn't account for changes from one category to another. Those women with mistimed or unwanted pregnancies had unmet need at some time in the previous nine months.

The need for any method versus for an appropriate method at the country level is an important distinction if there is a high use of traditional or temporary methods. In this case there will be a large difference between what DHS calculates because it does not consider the user's characteristics. The DHS calculates the "any method" model. The appropriate method model can be adapted to local conditions, and it can be standardized which might be a plus because it would force countries to talk about their programs. Others may think of it as a negative because the definition of "appropriate" will not be comparable across countries. Foreit emphasized that the DHS is an untapped data source for program planning. Some group members asked whether this graph could be used to chart men's needs. Foreit's response was that only a small number of DHSs include male respondents. Another question was whether a country can use both methods, and this depends on what one wants to do with the data.

Conclusion of Meeting and Next Steps for Future Meetings

The group identified three areas where further work is needed.

1. The quality of care indicators need to be examined for their applicability to other service delivery approaches such as CBD and CSM and adapted as necessary.
2. A conceptual framework for access, similar to the Bruce framework for quality, should be developed and then circulated to members of the SDWG for review.
3. A seminar on the current state-of-the-art in cost analysis should be planned and conducted for the purposes of updating interested members of the international population community on this topic.

Each one of these activities will be carried out by a subcommittee that will meet before the next full meeting of the SDWG. To this end, members of the SDWG volunteered to work on the subcommittees and/or nominated others.

Other activities that will be undertaken by The EVALUATION Project are to refine the definitions of new acceptors and to continue work on the CYP study. It is also recommended that more work be done on MIS. Finally, it was suggested that reality checks be conducted at the field level for the measures and studies being developed.

Evaluation of the meeting: At the close of the second day, participants were asked to complete a two-page evaluation form regarding the meeting. Results are presented in Appendix K.

Next meeting The date for the next meeting is April 6-7, 1993.

LIST OF APPENDICES

- A. Agenda
- B. List of objectives
- C. Assessing the relation between the quality of care and the utilization of family planning services in Côte d'Ivoire
- D. CARE protocol for use during supervision visits (draft)
- E. Indicators of quality of family planning services in an ongoing study in Morocco
- F. Some uses of cost estimates
- G. The EVALUATION Project Conceptual Framework for Family Planning
- H. Access to family planning services
- I. Measures of the quantity of services
- J. Unmet need: approaches to measurement based on the DHS
- K. Evaluation results

APPENDIX A

AGENDA
SERVICE DELIVERY WORKING GROUP
THE EVALUATION PROJECT

December 9-10, 1992

Day 1: December 9, 1992

8:30 Coffee and pastries

Topic 1: Measuring Quality of Services In FP Programs

9:00 Introduction, welcome to participants, objectives of meeting

9:10 Review of Quality Indicators (from the subcommittee meetings in June and September 1992)

9:30 Panel: Methodological lessons learned in testing quality indicators at the field level:

- The Ivory Coast OR study (Population Council/SEATS), by Alain Damiba
- CARE's Quality of Care Supervision Tool, by Therese McGinn
- The PROFAMILIA Quality Study, by Gabriel Ojeda
- The Morocco Quality Study (The EVALUATION Project), by Jane Bertrand

10:30 Discussion

10:45 Brezk

11:00 Update by Karen-Hardee Cleaveland, FHI:

- TQM workshop
- Catalogue of tools to measure quality of services

11:30 Discussion: unresolved issues in measuring quality of services and next steps

- List of indicators for CAs to use at the field level
- Guidelines for CAs to use in preparing their workplans in the area of quality
- Other

12:30 Lunch

Topic 2: Measuring Cost In Family Planning Programs

1:30 Interest of FPSD in the cost issue, by Jinny Sewell

1:45 Panel on measuring costs of USAID-funded FP programs

- Experience with analyzing costs and service statistics for FPSD in 1990-91, by Steve Hawkins
- Experience of the previous working group on costs, organized under the Task Force for Improving Family Planning Program Performance Indicators (1989-90), by John Stover
- Issues to take into account in forming a cost working group, by Jim Knowles

APPENDIX A

AGENDA SERVICE DELIVERY WORKING GROUP THE EVALUATION PROJECT

December 9-10, 1992

Day 1: December 9, 1992 (continued)

- 2:30 Discussion
- What are the interests of the CAs in pursuing the measurement of costs?
 - What are the reservations of CAs regarding the use of cost data?
 - Is the lack of standard methodological approach in cost per CYP analyses a problem?
 - Other
- 3:15 Break
- 3:30 The Management Working Group, by Sheila Maher
- To what extent would there be overlap between a cost subcommittee of the SDWG and the Management Working group (to begin in early 1993)?
 - Given that the SDWG is covering "quantity, quality and cost," what should the Management Working Group cover (since it would be logical for them to cover "quality, time and cost").¹
 - Discussion
- 4:15 Next Steps regarding Cost
- Should there be a cost subcommittee of the SDWG?
 - (If so) What issues should be addressed? Who should be on it? Related issues.
 - (If not) Should others be encouraged to take this on? With what suggestions from this group?
- 5:00 Adjournment

¹ Although this topic is not directly related to cost, we would like to take advantage of the presence of members from the CAs who might well participate in the Management Working Group to pose this question.

17

APPENDIX A

AGENDA
SERVICE DELIVERY WORKING GROUP
THE EVALUATION PROJECT

December 9-10, 1992

Day 2: December 10, 1992

8:30 Coffee and pastries

Topic 3: Measuring "Quantity" In FP Programs

9:00 Overview of Day #2: Measuring access, service utilization, contraceptive prevalence and unmet need, by Jane Bertrand

9:15 Access to Family Planning Services: Dr. Luis Rosero Bixby

9:45 Discussion of access:

- What responsibility do CAs have to measure/monitor access?
- What approaches have proven practical at the field level?
- What aspects of access (if any) should be addressed by the SDWG?
- Other

10:30 Break

10:45 Service utilization-program based: Review of Key Indicators and Update on Study of CYP Conversion Factors, by Jane Bertrand

11:15 Discussion of service utilization:

- New acceptors: are the proposed definitions consistent with existing practice at the country level?
- CYP: Is it useful to try to improve on the CYP indicator (by incorporating local data in conversion factor where possible, trying to make it reflect fertility-impact, etc.) if the resulting indicator is more complicated and is not comparable across countries/programs?
- The number of new acceptors to reach TFR of 2.1 as part of the three-factor index to define priority country status

12:30 Lunch

1:30 Service Utilization - Population Based: Plans for the FP Evaluation Module for the DHS, by Amy Tsui ²

2:45 Unmet Need: Approaches to measurement based on the DHS, by Karen Foreit

3:30 Break

3:45 Next steps for SDWG

- Activities to be undertaken
- Setting of next meeting date/proposed agenda

5:00 Adjournment

² Given that participants are knowledgeable about the measurement of contraceptive prevalence using DHS data, we have not included a separate presentation on this topic. However, Amy Tsui will comment briefly on the current state-of-the art in measuring contraceptive prevalence

SERVICE DELIVERY WORKING GROUP
THE EVALUATION PROJECT

December 9-10, 1992

Objectives regarding Quality:

1. To review the indicators of quality developed by the Quality subcommittee in June/September 1992.
2. To examine methodologies which have been used to measure quality in family planning service delivery.
3. To identify unresolved problems in collecting and analyzing data on service quality.

Objectives regarding Quantity:

1. To examine state-of-the-art techniques for measuring "quantity" in terms of access, service utilization, contraceptive prevalence, and unmet need.
2. To identify the utility of these quantity data for host country agencies and CAs.
3. To identify the role of host country agencies and CAs in generating/collecting/analyzing different types of quantity data.
4. To identify future directions for work in this area by SDWG.

Objectives regarding Cost:

1. To examine the possibility of forming a subcommittee on cost.
2. To identify the priority issues to be addressed with regard to cost.

**Assessing the Relation Between the Quality of Care
and the Utilization of Family Planning Services
in Côte d'Ivoire**

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Paper Prepared for the
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November, 1992

INTRODUCTION

In recent years there has been increasing attention paid to the quality of family planning services (Calla, 1991). Improvements in quality of care (QOC) are expected to result in improved client health, higher contraceptive prevalence and ultimately reductions in fertility (Kummar, et.al., 1989).

There has been considerable progress made in the development of tools to assess the QOC provided by family planning programs, notably through the use of the Population Council's Situation Analysis methodology. This methodology has demonstrated its utility in identifying problems with specific clinical sub-systems and providing indications for corrective actions in more than seven African countries as well as in Asia and Latin America. In addition to the Situation Analysis methodology, many other operations research projects have employed different methods for studying QOC elements (Way, et.al., 1991, Huntington, et.al., 1991). As a result of these methodological advances program managers today more often request information not only about the level of services but also the quality of care provided. In response to this demand operations research needs to develop analytic methods based on existing methodologies that will provide simple aggregate indicators of a program's QOC.

The relationship of QOC to outcome variables such as the use of services has a theoretical basis, but empirical evidence that links a multi-dimensional measure of QOC to outcome variables is lacking in the literature. Unidimensional measures of QOC have been linked to outcome variables, however. The Matlab Family Planning-Health Services Project provided compelling evidence that choice is related to prevalence (Bhatia, et.al., 1980), and

several operations research projects have demonstrated that providing an appropriate range of services for the population being served can have an impact on family planning acceptance (Way, et.al., 1991). The match between client choice of method and sustained use has also been indicated by Bruce and Jain, (1990). Using the results from a Kenyan Situation Analysis study, Miller and his colleagues (1990) analyzed the bivariate relations between various QOC indicators and different categories of clinics. The findings indicated a relation between the number of clients served and the QOC provided.

Recent work in developing a single, multi-dimensional QOC score using the Nigerian Situation Analysis is currently underway by the Population Council, (Mensch, 1992). This paper continues the development of a single QOC score using a Situation Analysis study's results begun by Mensch, as it reports on the results of a simple summative scale score of QOC indicators derived from a Situation Analysis study in Côte d'Ivoire. The level of quality provided by family planning clinics (as indicated by a single score) is compared to the continuity of service use among 1,000 new contraceptive acceptors.

SETTING OF THE STUDY

Family planning services are not widely available in Côte d'Ivoire and have only recently been officially permitted by the government. Prior to 1991 the Ivoirienne government actively discouraged the development of family planning services. The IPPF affiliate, the Association Ivoirienne Pour le Bien Etre Familial (AIBEF), was prohibited from widely publicizing its services and the provision of contraceptive methods to public sector MCH clinics was restricted. Thus until fairly recently AIBEF had three clinics and assisted one public sector MCH clinic in Abidjan, and three in provincial towns. In addition to

AIBEF run clinics the only other source of contraceptive methods (prior to 1991) were commercial pharmacies and private physicians. Private physicians are prohibitively expensive and extremely few in number for the general population and pharmacies can provide only a limited range of contraceptives without a prescription.

The political environment changed dramatically in early 1991 when the Ivoirienne government reversed its position on population policy and family planning. The Ministry of Health presently encourages the development of family planning services through its newly created national family planning coordinator's office. Five new public sector MCH clinics have since begun to offer family planning services, and a large bi-lateral project with USAID has begun that will substantially augment and improve the delivery of family planning services in the country.

SITUATION ANALYSIS METHODOLOGY FOR ASSESSING AIBEF'S QOC

The Situation Analysis methodology as developed in several other African countries (and reported on in Fisher et al., 1992; Miller, et al., 1991) was employed to assess the quality of the Ivoirienne family planning program. The nine month study began in February, 1992 and the field work / data collection took place in April of the same year.

Two teams of interviewers were involved with the study. Each team was composed of one Nurse Midwife trained in family planning, an interviewer experienced in family planning surveys and a supervisor. The teams spent two consecutive days at the clinics. The Nurse Midwife observed every consultation with new acceptors and interviewed all of the staff present at the clinics. The interviewer conducted exit interviews with randomly selected new and continuing clients after their family planning consultation. The supervisor conducted

a systematic inventory of the clinic's physical facility and evaluated the orderliness of the stock room and record keeping system.

The Situation Analysis in Côte d'Ivoire was conducted at 100% of the family planning clinics in the country that had been operational for at least three months prior to the study. There are thirteen clinics in the study, five of which are in Abidjan. Six of the clinics are public sector MCH/FP and the other seven are AIBEF managed clinics. The following number of questionnaires were completed:

Interviews with Clients	355
Interviews with Staff	51
Observations of FP Consultations	163
Inventory of Facilities	13

The results of the Situation Analysis study are fully reported on in the operations research study's final report, (Huntington, Kouakou Kouassi, and Kouame, 1992).

QUALITY OF CARE SCALE SCORES FROM SITUATION ANALYSIS

Simple summative scale scores were developed using the results of the Situation Analysis study that provide a quantitative indicator of each clinic's QOC. The development of the scale scores began by first identifying eleven elements derived from Bruce's QOC framework (Bruce, 1989), the Sub-Committee on Quality Indicators in Family Planning Service Delivery (USAID, 1990), the report from the Evaluation Project's Sub-Committee on Quality Assurance, (Carolina Population Center, 1992) and the list of indicators used with the Nigerian Situation Analysis, (Mensch, 1992).

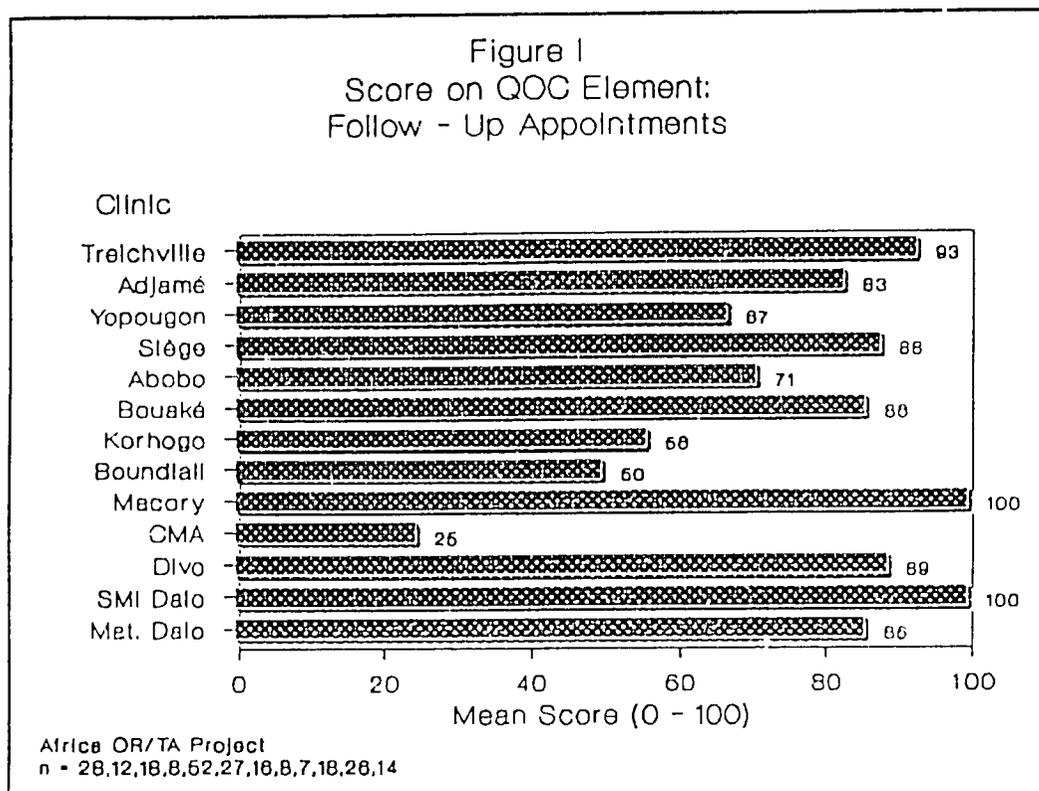
<i>Quality of Care Element</i>	<i>Number of Questions from Situation Analysis Instruments</i>
<i>1. Methods Available</i>	<i>5</i>
<i>2. Number of Methods Offered</i>	<i>1</i>
<i>3. Client Role in Method Selection</i>	<i>2</i>
<i>4. Appropriate Medical History Taken</i>	<i>6</i>
<i>5. Asepsis in Performing Pelvic Exam</i>	<i>1</i>
<i>6. Information Given to Clients</i>	<i>7</i>
<i>7. Understanding Clients</i>	<i>4</i>
<i>8. Providers' Treatment of Clients</i>	<i>4</i>
<i>9. Degree of Privacy</i>	<i>3</i>
<i>10. Follow - Up Appointment</i>	<i>2</i>
<i>11. Functional Capacity to Provide FP Services</i>	<i>14</i>
<i>Total Number of Items:</i>	<i>49</i>

The Situation Analysis' four questionnaires were reviewed to identify questions that measured aspects of the eleven QOC elements cited in table above. Forty-nine questions were used to construct eleven scores. The range of questions per element is one to fourteen, with an average of approximately four questions per element. The responses for each question were converted into percentages (if necessary) in order to standardize the scoring. For example, the number of methods available in the clinic was converted into a percentage using the number of methods available as the numerator and the total number possible as the denominator. In some questions the responses were recoded so that higher scores are consistently in the direction of higher quality.

26

Equal weight was given to every question in the element, the questions were summed, and each clinic's mean score was calculated for each element. Equal weight was given to each question in the eleven elements primarily because the authors sought to avoid making normative judgements on quality in the absence of a consensus among Ivoirienne program managers on standards of care. This decision was made simply to expedite the development of an experimental analytic technique for quantifying QOC and does not reflect a theoretical orientation for measuring QOC. Basic enabling conditions (such as the availability of methods or trained providers) were never absolutely absent in any of the clinics.

The results of three elements are presented below as examples of the findings from the eleven elements.



There was a fairly wide range of scores on the element "Follow - Up Appointments", (Figure I). This element is composed of two items from the Situation Analysis' Observation questionnaire: *Was the client told when to return?* and *Was the client given a written note of the follow-up visit date?* The number of observations per clinic varied widely in the Situation Analysis study, which is a reflection of the variance in clinic size. In Figure I the number of cases used to construct the score ranged from seven to fifty-two, and four clinics had fewer than ten cases. The reliability of the scores for these smaller clinics is thus questionable.

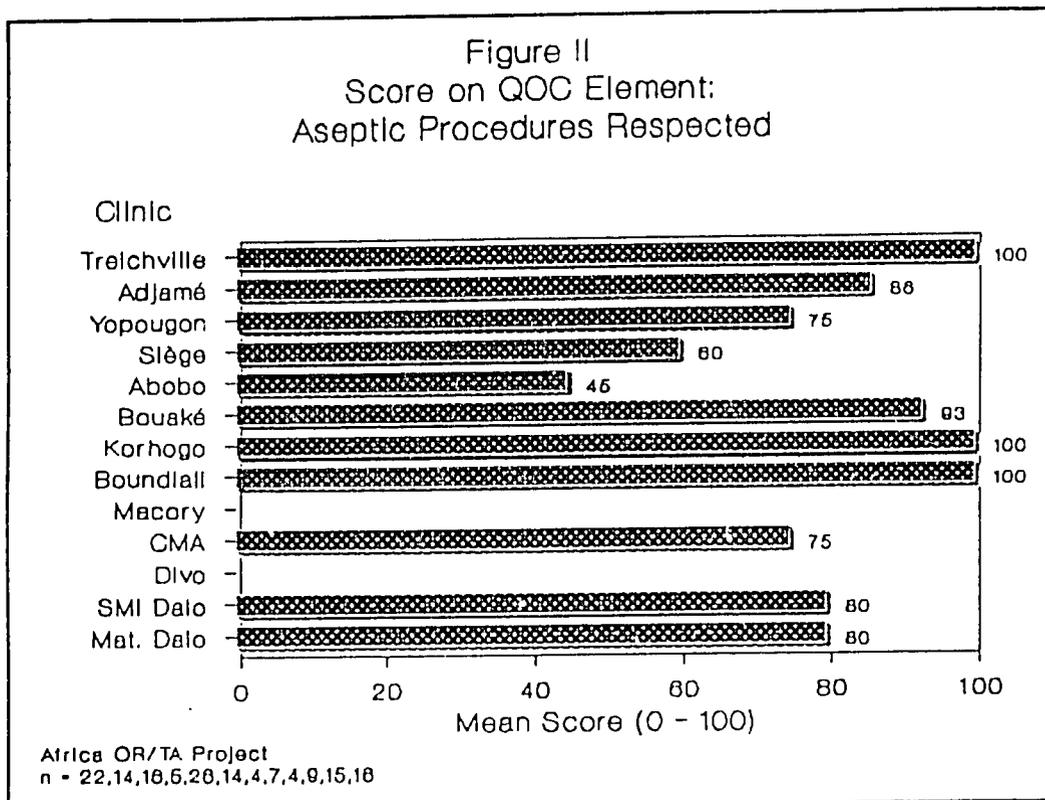
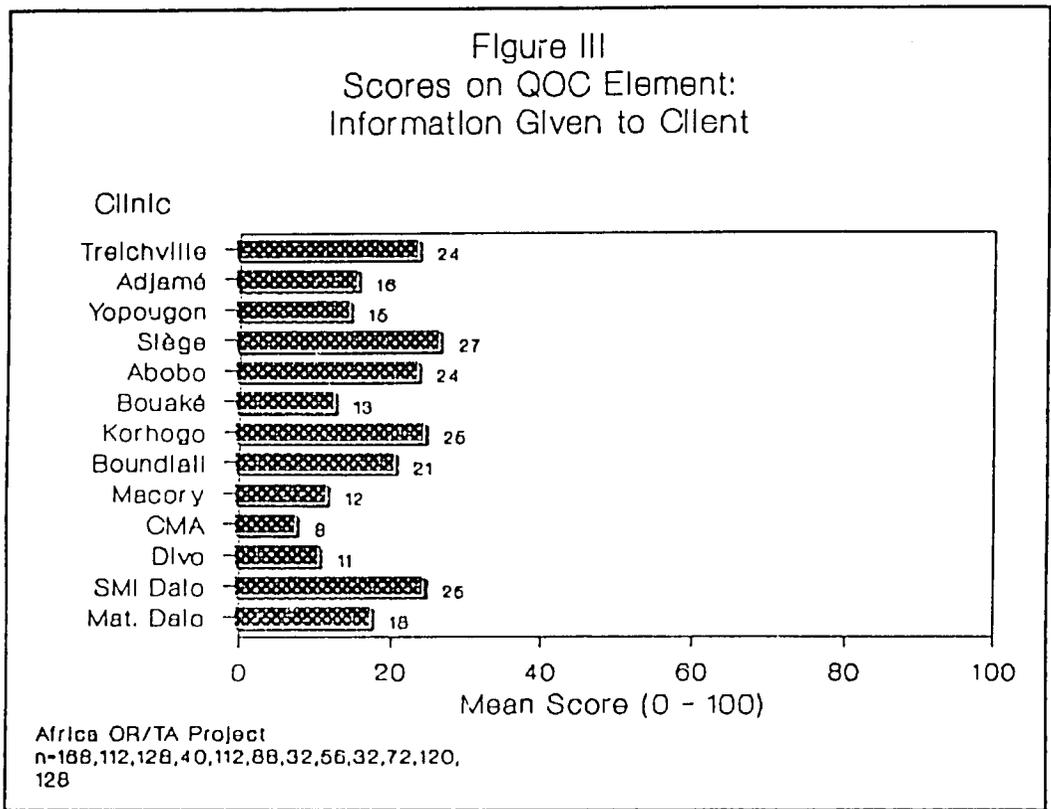


Figure II presents the results from the element concerning aseptic procedures. Although the element was composed of a single item obtained from the observation questionnaires (percentage of consultations observed with a gynecology exam where aseptic procedures were respected), the results clearly indicate that this fundamental clinical practice is not consistently followed in a majority of family planning clinics. The sample size from four clinics is less than ten observations, thus (as with the Follow-Up Appointment element) the reliability of the score from the smaller clinics is problematic.

Figure III (below) presents the results on an element where all of the thirteen clinics uniformly performed poorly: Information Given to Clients. This element is composed of seven items taken from the observation and client interview questionnaires.

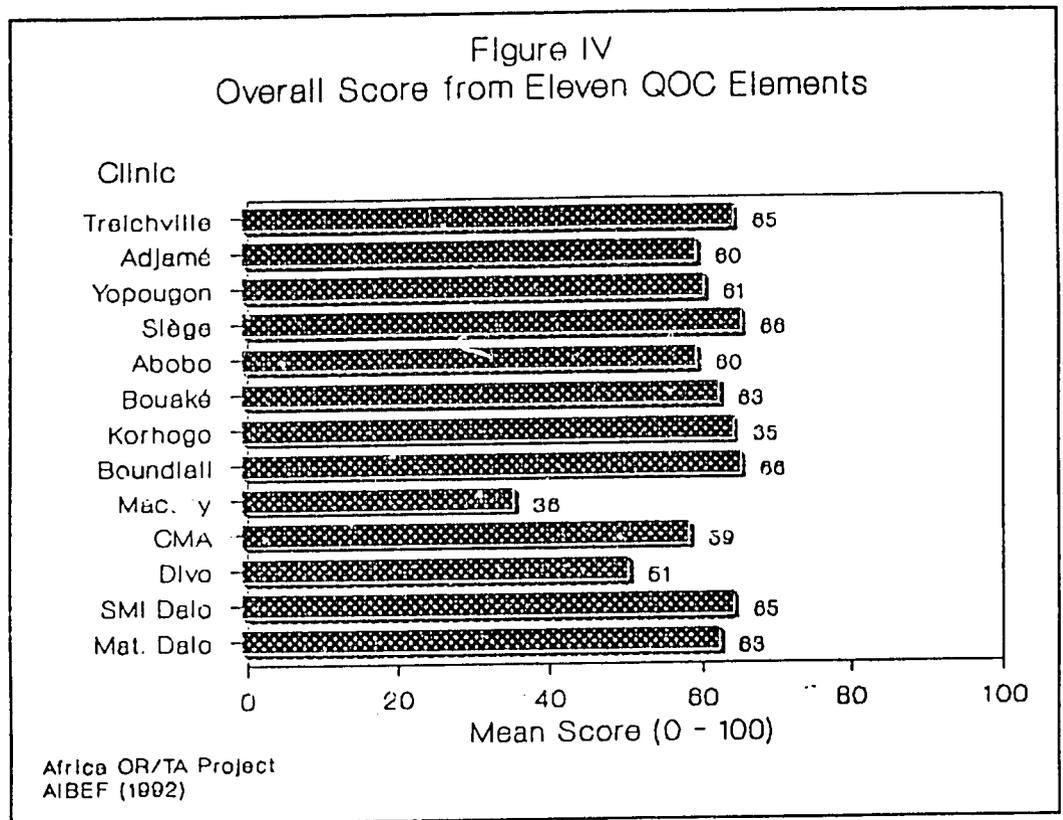
Figure III
Scores on QOC Element:
Information Given to Client



The average sample size is 100 cases per clinic in this element, and no clinic has fewer than thirty cases. The element includes the percentage of clients observed where information was provided (on their method accepted) regarding: when to seek help, how to use the method, contraindication, side effects and their management, and the advantages of the method vis-a-vis other methods. In addition it includes the percentage of clients who correctly and completely explained the use of their method upon leaving the clinic.

An overall QOC score for each clinic was produced by summing the mean scores from the eleven elements and dividing by eleven (see Figure IV below). This score ranges between 0 and 100, and the average score among the thirteen clinics is 60.

20



There are several methodological constraints to the construction of the QOC scale scores that merit review. Since several of the QOC elements were composed of results from just one or two questions, and several of the clinics in the study have small case loads, the issue of sample size and reliability is evidently a concern. In addition, the validity of giving equal weight to every item within the elements, and to each element within the overall score is problematic. Multi-variate analyses (such as factor and correlational analysis) are also advisable as a next step in the evolution of the analytic technique.

These considerations notwithstanding, however, the overall scale score seems to discriminate in a meaningful way between clinics. For example, the more recently established public sector MCH/FP clinics have lower scores than the sole purpose AIBEF

clinics. The scores on individual QOC elements target areas for reinforcement in a more meaningful manner than the simple univariate analyses from the Situation Analysis study. Overall, the results indicate that the Ivoirienne program is functioning a mid-level quality.

ESTIMATING THE CONTINUITY OF SERVICE USE

The development of the new information system and the conduct of a panel study of new acceptors in the same clinics where the Situation Analysis was undertaken provides the unique opportunity to examine the relation between QOC and an outcome measure of service use.

Estimating the continuity of service use is highly dependent upon the quality of the data generated by the clinic's information system. The Ivoirienne family planning program (with assistance from the Population Council's Africa OR/TA and John Snow Inc.'s SEATS projects) developed an information system that is routinely generating high quality data on several of QOC indicators. The design of this innovative information system is briefly described below, as is the methodology of a panel study based on its consultation cards.

A primary data source that is routinely collected for each client is the newly developed clinic consultation card. The card was designed with the participation of front line clinic staff, their program managers and medical advisors. It provides at a glance information on several quality of care indicators, such as matching reproductive intentions to method choice, method switching and the general history of service use. Data on continuity of use is noted on a simple table that includes on a single line the date of each consultation, the contraceptive method and quantity provided, the reason for the visit and the date for the next visit. The card was designed to provide this type of data for two types of users: (1)

clinicians, who can refer to these indicators to improve individual case management of specific clients, and (2) researchers, who can aggregate these indicators from a group of clients to provide information relative to the program's performance on a range of quality of care indicators. Monthly supervision visits to each family planning clinic by an MIS manager have not identified persistent problems in the use of the consultation card.

An operations research study exploited these cards to examine several QOC issues, including the continuity of service use. A cohort sample of 1,000 new acceptors was tracked retrospectively for a six month period to provide indications of their experience relative to the quality of care indicators cited above. The medical records of 1,000 new acceptors from October, 1991 were randomly selected in April, 1992. The number of acceptors per clinic was determined in proportion to the average case load of new clients during the previous year among the nine clinics involved in the study.

There are three considerations to the calculation of continuity of service use that require clarification and which were taken into account in the study design and data analysis. First, the time interval between visits to the clinic varies according to the supply of pills the client received. Second, clients who change from pills to another method were not considered as abandoning services. Third, the base from which each measure of service use was calculated was reduced by the number of clients who had previously abandoned. A client was considered as an abandon if she never returned to the clinic. She may, of course, simply have changed her source of supply, thus the continuity of service use estimations which follow should not be confused with continuity of family planning method use. The results of the operations research study that generated the data on which the following results

are based are fully reported on in Huntington and Kouame, 1992.

RELATION BETWEEN THE QOC SCORES AND CONTINUITY OF SERVICE USE

The clearest comparison of service use by QOC scores would be between clinic that scored the lowest on the QOC scale and the one that scored highest. Unfortunately this comparison is not advisable due to the extremely small case load of new acceptors of pills in the clinic that scored lowest on the QOC scale, (n=18), and the recent installation of family planning services in the two other clinics that scored below average on the QOC scale, (which precluded their selection for the panel study).

The continuity of service is therefore compared between a clinic with an average QOC score and one that has an above average score. They are Yopogoun and Triechville clinics, which are two large, urban AIBEF sole purpose family planning clinics. Triechville is one of AIBEF's original and largest clinics, serves an average of 2,000 clients per month and is located on the grounds of a major teaching hospital in Abidjan adjacent to the OB/GYN department. Triechville's QOC score is sixty-five. Yopogoun is similar to Triechville in many respects (staffing, history, setting and size, as it serves an average of 1,367 clients per month). Yopogoun's the QOC score of 61 is approximately average for the Ivoirienne program, and is significantly different from Treichville's QOC score ($p < .001$).

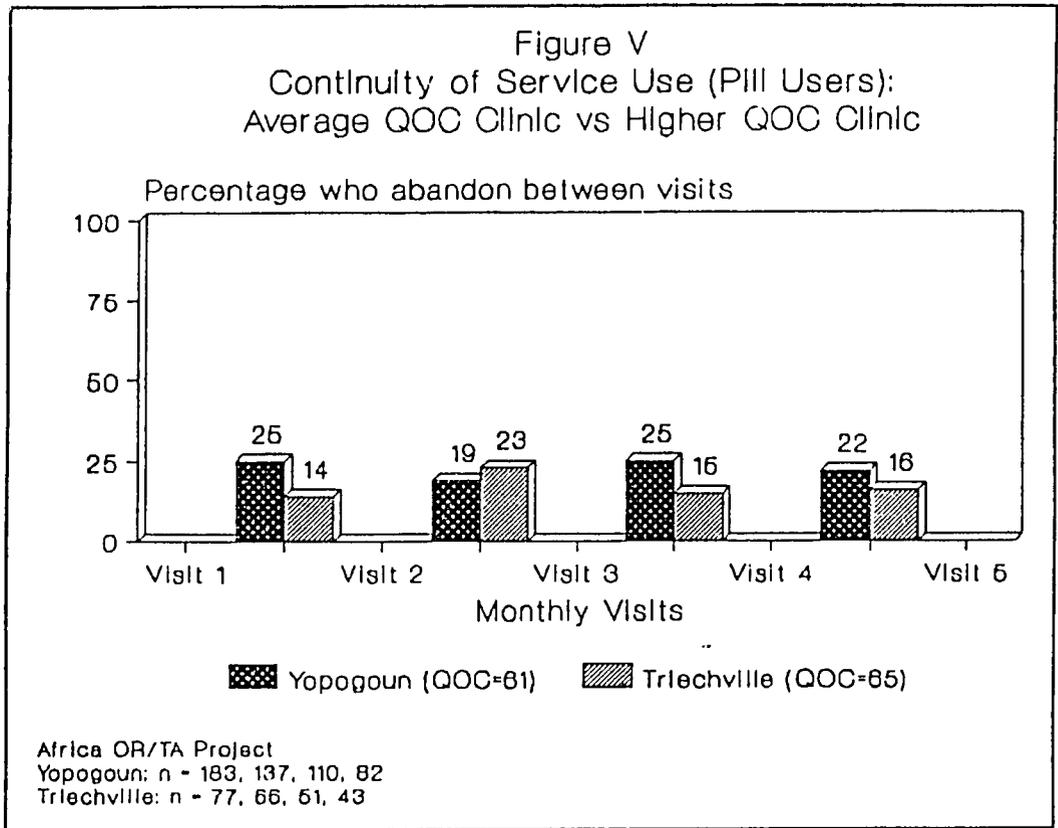


Figure V indicates that the higher QOC clinic has eleven percent fewer clients who abandon services between visits one and two, ten percent fewer clients who abandon services between three and four, and six percent fewer between visits five and six. Between visits two and three the higher QOC clinic has four percent more clients who abandon than the lower QOC clinic.

These bivariate results suggest a negative association between the clinic's QOC score and the number of clients who abandon services: The higher the QOC score, the smaller the percentage of clients who abandon using the services.

CONCLUSIONS

Quality of Care Scoring Method

The results presented in this study are exploratory analyses for the development of simple scale scores of QOC from the Situation Analysis studies. The identification of eleven elements from the deliberations of various sub-committees on QOC led to the grouping of items from the four Situation Analysis questionnaires. Not every indicator was measured equally well or completely in the eleven elements. This exercise produced results, however, that discriminate in a meaningful way between clinics on each of the eleven elements, and the overall score provides a baseline measure for monitoring improvements in the family planning program's QOC. The Ivoirienne family planning program is currently functioning at a mid-successful level of QOC, with a clear distinction in levels of QOC provided between the more recently opened public sector MCH/FP clinics and the established AIBEF sole purpose family planning clinics.

Since the results presented in this paper are a work in progress the following areas are suggested for future work in the development of QOC scores from the Situation Analysis methodology.

The Situation Analysis study questionnaires should be revised to assist in the production of QOC scales.

As they currently are developed, the Situation Analysis questionnaires do not contain enough ordinal or interval level measurements to permit multivariate analyses or scale score development. In addition to increasing the level of measurement, the questionnaires need to be restructured and revised to target the development of scores for specific elements (such as was done in this paper), with direct reference made to the list of indicators proposed by the

various sub-committees on QOC. Explicit links between questionnaires should be developed in the data collection phase (e.g., the same client who is observed should be interviewed) and in the data analysis, (e.g., a comprehensive data analysis plan for developing scale scores needs to be elaborated). Consideration needs to be given during the data collection phase to ensuring an adequate number of cases per unit of analysis in order to enhance the reliability of the results.

Guidelines are needed for developing a weighting system for the variables within various QOC elements, and for the various elements in producing the overall score.

This is a particularly difficult issue to address as it brings the data analysis plan directly into the realm of QOC norms and standards. It may therefore not be possible nor even desirable to develop a standardized weighting plan for all items in all QOC elements. Some advances in this area should be possible, however, if guidelines were incorporated into the data analysis plan of the Situation Analysis for discussing this issue with program managers.

Relation Between the QOC Scores and Continuity of Service Use

The determinates of service utilization are many and varied. The simple bivariate analyses presented above indicate a positive relation between QOC and sustained use of family planning services, but they are not conclusive because the analytic model of service use is not complete. There are clearly other dimensions that effect utilization of services that are not included in the QOC scores used in this analysis. Factors related to accessibility (financial barriers and physical distance are two examples) and acceptability (for example, the influence of community norms and the status of women) are two complex and important



dimensions that will need to be incorporated in a comprehensive study of continuity of service use. In the absence of a more complete equation it is problematic to sort out the relative influence that QOC has on the continuity of service use. The exploratory bivariate analyses presented in this paper suggest that a positive relationship exists, but more work needs to be done in measuring a fuller range of factors that can have an influence on continuity of service use and developing appropriate multi-variate models of use before a more definitive answer can be provided.

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**DRAFT QUALITY OF CARE PROTOCOL
FOR USE DURING SUPERVISION VISITS**

(Revised October 1992)

**Handout for the Meeting of the
Service Delivery Working Group
The Evaluation Project**

December 9-10, 1992

Indicator	Scale and Points	Comments
<p>Percent approved methods in stock</p> <p>(Calculation: Number of methods in stock divided by number of approved methods for site; in stock = unexpired and at least 1 month's supply)</p>	<p>100% 2 points 60-99% 1 point <60% 0 points</p>	
<p>Written guidelines for family planning education and practice visible</p>	<p>Yes 1 point No 0 points</p>	
<p>Necessary equipment and materials in stock and working to deliver safe services:</p> <ul style="list-style-type: none"> • (to be filled in) • • <p>(It is recommended that a list be developed based on country protocols. Only those items relevant to the site being assessed should be considered in the scoring.)</p>	<p>All 2 points Most 1 point Little 0 points or none</p>	
<p>Percent approved methods for which educational materials are in stock</p> <p>(in stock = at least 1 month's supply)</p>	<p>100% 2 points 60-99% 1 point <60% 0 points</p>	
<p>Privacy available</p>	<p>Yes 1 point No 0 points</p>	
<p>System exists for follow-up:</p> <ul style="list-style-type: none"> • to <u>identify</u> clients past due for follow-up • to <u>contact</u> clients past due for follow-up 	<p>Yes 1 point No 0 points</p> <p>Yes 1 point No 0 points</p>	
<p>SCORE ON CLINIC MANAGEMENT COMPONENT</p>	<p>MAXIMUM 10</p> <p>THIS VISIT _____</p>	

43

PROVIDER COMPONENT (Cont.)

Indicator	Scale and Points	Comments
<p>Did the provider demonstrate skill in clinical procedure:</p> <ul style="list-style-type: none"> • (to be filled in) • • <p>(It is recommended that a detailed list be developed based on country protocols.)</p>	<p>Yes 1 No 0 Yes 1 No 0 Yes 1 No 0</p>	
<p>Did provider encourage client to return as needed?</p>	<p>Yes 1 No 0</p>	
<p>SCORE ON PROVIDER COMPONENT</p>	<p>MAXIMUM POSSIBLE FOR THIS SITE _____</p> <p>THIS VISIT _____</p>	<p>NOTE: The maximum score will differ by site since some items, such as VSC forms or IUD technique, will not be applicable to all sites. Only items which are relevant for the site being assessed should be included in the MAXIMUM POSSIBLE score.</p>

PROBLEMS DISCUSSED AND ACTION PLAN
(Leave carbon copy at site)

Problem Description	Steps Required to Resolve Problem	Person Responsible For Each Step	By When?

FS

APPENDIX E

INDICATORS OF QUALITY OF FAMILY PLANNING SERVICES IN AN ONGOING STUDY IN MOROCCO

MINISTRY OF HEALTH, SEATS, THE EVALUATION PROJECT

ELEMENT/INDICATOR	MODULE A INVENTORY OF FACILITY	MODULE B PROVIDER/ CLIENT OBSERVATION	MODULE C EXIT INTERVIEW	MODULE INTERVIEW WITH PROVIDER
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INTERPERSONAL RELATIONS

1. Rapport established for assessing personal situation (family circumstances, nature of sexual relationships)		101, 106, 107.	101, 101a, 102, 103, 103a, 104, 105, 106, 107, 107a, 401, 402, 403, 404.	
2. Client reports feeling: a) welcomed by staff, b) at ease/uncomfortable asking questions, c) providers were rude/polite.		101.	110, 301, 302, 303, 306.	
3. Personnel trained in interpersonal relations	403.			103a.

CHOICE OF METHOD

4. Number /range of methods available at the SDP	602.	201, 401.		
5. Referrals for methods not available		401a.		205.
7. Restrictions placed on available methods - nonpermanent, permanent.				201, 203
8. Client receives her/his method of choice.		206	205a-c, 206, 206a, 207a,b, 208,209, 210.	
9. Number of methods approved for use at the SDP				
10. All methods appropriate to reproductive intentions are offered to the client		201, 202.	213a.	201, 202, 205
11. Client receives method appropriate to reproductive intention		102, 203, 404.	212, 213, 405, 406a, 406b, 407, 408.	

INFORMING AND COUNSELING CLIENTS

12. Provider gives in-depth information on method accepted: a) how it works; b) how to use; c) side effects; d) complications; e) management of side effects; f) followup; g) resupply		201, 207.	213, 304.	
13. Client correctly explains method chosen: a) how to use; b) what to do about side effects; c) possible side effects; d) when to return; e) where to return			211, 211a, 211b, 211c.	

¹ The numbers in the column refer to items on the data collection instrument. They are listed here to give an idea of indicators for which multiple questions were used in the Morocco Study

ELEMENT /INDICATOR	MODULE A INVENTORY OF FACILITY	MODULE B PROVIDER/ CLIENT OBSERVATION	MODULE C EXIT INTERVIEW	MODULE D INTERVIEW WITH PROVIDERS
<u>INFORMING AND COUNSELING (CONTD)</u>				
4. Service providers trained in counsel - ing skills (eliciting and providing information)		103, 104, 105, 108, 109, 110, 205.		103a.
5. Method specific informational mater- ials available	301, 302, 303.	204.		303.
6. Checklist available on information for provider to cover during counseling session		111.		304
7. Provider gives overview of all methods		201.		201-203
8. Privacy acceptable for counseling and exams	501, 502	112, 305b.		
9. Consent form available and signed by client for VSC		appendix		
<u>TECHNICAL COMPETENCE</u>				
0. Existence of written guidelines on FP practices	201			304, 306
1. Provider can explain contraception: benefits, how to use, contraIndica tions, side effects, management of side effects				102, 103, 103a, 105, 204.
2. Provider demonstrates skill at clinical procedures (according to guidelines)		301-305		
3. Infection control procedures maintained at SDP according to guidelines	504	305a		
4. Client receives appropriate method: not medically contraIndic ed, and appro priate for sexual lifestyle		103, 104.		204
5. Existence of education/training criteria for service tasks	702			
6. Existence of mechanism to review/ screen potential service providers	702a			
7. Existence of job description for each position	701			
8. Clinical provider has received training relevant to the job				102, 103, 103a, 105, 106.

ELEMENT /INDICATOR	MODULE A INVENTORY OF FACILITY	MODULE B PROVIDER/ CLIENT OBSERVATION	MODULE C EXIT INTERVIEW	MODUL INTERV. WITH PROVID.
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TECHNICAL COMPETANCE (Cont'd)

29. Training of new staff regarding institution's guidelines				103a.
30. Periodic refresher/in-service training of all staff				104, 107.
31. Availability of appropriate basic items for delivering available methods at SDP: sterilizing equipment, gloves, blood pressure, specula, adequate lighting	505, 601.	304		302.
32. Adequacy of supervision: frequency and content	805.			305.
33. Capability to handle reproductive tract infections - RTI, STDs, and HIV: a) diagnosis, b) treatment, c) referral	706, 706a.			

MECHANISMS TO ENSURE CONTINUITY

34. Ease of resupply		401		
35. Clients past-due for follow-up identified	703			
36. Clients past-due for follow-up contacted	704			
37. Reasons for non-return identified				
38. Appropriateness of follow-up/return schedule			211d, 211e.	
39. Clients encouraged to return as needed		402, 403.		

APPROPRIATENESS AND ACCEPTABILITY OF SERVICES

40. Client's perceive that: privacy for exam and counseling is acceptable/not, waiting time is acceptable/not, time with provider is acceptable/not, hours/days are convenient/not, staff is acceptable/not in terms of gender, age, ethnic group	402, 1001.	501-503	108, 301, 301a, 302, 305, 307,	
41. Adequacy of the facility (as perceived by the client): waiting room, exam room, hygiene, water, toilet facilities, other	202-204, 506		109, 307.	

ELEMENT /INDICATOR	MODULE A INVENTORY OF FACILITY	MODULE B PROVIDER/ CLIENT OBSERVATION	MODULE C EXIT INTERVIEW	MODULE D INTERVIEW WITH PROVIDERS
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OUTCOMES

2. Increase in number of new acceptors/ users 902

3. Complication rate for specific methods

4. Continuation rate (of any method)

5 New clients recommended by other users

Users recommend service to others

Client achieves reproductive intention

Jim Knowles
December 9, 1992

Some Uses of Cost Estimates

The following list describes some of the uses of cost data and cost estimation. The use to which cost estimates will be put determines in some cases the types of data needed. It is therefore important to have a clear idea of purpose at the outset.

- Resource Allocation (e.g., comparing cost per CYP between different projects, contraceptive methods, service delivery modes--even entire programs!). The purpose here is to improve overall program efficiency by channeling resources into the most cost-effective projects, methods and service delivery modes. In this context, it is important that the output measure (CYP) be adjusted to reflect the impact of the activity on fertility, net of any substitution.
- Projecting Future Costs (future program resource needs). This is the kind of exercise one can do with the Target-Cost model. Here it is very important to consider whether the long-run marginal (i.e., additional) cost differs from the current average cost. Is there underutilization? Are there unexploited economies of scale? Is there a learning curve? Will additional users be more expensive to reach?
- Budget Projections. Here it is important to use the budgetary definitions of recurrent and capital costs. If budgets do not reflect imputed costs, then these don't need to be included. But additional capital expenditures may have to be included to reflect program growth.
- Performance Evaluation (monitoring provider efficiency). Here it may not be necessary to use full costs (since some of the resources will be beyond the control of managers); also the output measure need not be adjusted for substitution or other refinements. There may be more value to having time-series data, showing trends in cost per unit of service over time. Alternatively, similar efficiency measures can be compared between providers, at a point in time.
- Evaluation of Experiments. Numerous operations research projects have been evaluated in part according to their cost per acceptor, cost per CYP or cost per birth averted.
- Sustainability. In order to transfer responsibility to governments for funding their own family planning programs it is useful to be able to estimate what the program actually costs them presently. For sustainability analyses, a distinction sometimes needs to be made between certain categories of costs. Contraceptive costs, for example, involve use of foreign exchange, while service delivery incurs relatively easier-to-fund costs in the form of government salaries and construction. Other sustainability analyses may require estimates of the resources saved from transferring users from the public

to the private sector.

- Cost Recovery. Cost recovery typically involves charging fees for services. Ideally, the fees charged should reflect underlying costs. In order to set reasonable fees, therefore, it is necessary to have reliable estimates of cost.
- Benefit-Cost Analysis. Benefit-cost analysis is used to compare the return from investing in family planning to that of investments other than family planning. It has been widely used in the RAPID, OPTIONS and TIPPS projects. It does not usually require costs to be disaggregated by method or source.
- Costing Improvements in Quality of Care. Increases in quality will often entail increases in cost of services. Having reliable cost estimates for alternative quality mixes of services allows the manager to make an informed choice of the desired level of quality.
- Cost of Expanding Coverage. A careful analysis of unmet need can indicate the appropriate methods and service delivery approaches necessary to expand coverage to presently underserved groups. Cost data can be used to obtain an estimate of the marginal program cost involved in targeting unmet need, as well as provide an indication of the most cost-effective approach to expanding coverage (e.g., expand coverage around existing facilities, outreach, social marketing).
- Cost of Introducing New Method. Here the appropriate cost concept is that of marginal cost. All fixed and sunk costs can be ignored, as long as the new method does not require additional capacity. Even labor cost can be ignored if salaried staff are underutilized.
- Cost Analysis. Most cost estimation exercises terminate with estimates of total cost, cost per unit of service or impact (e.g., cost per CYP, cost per birth averted). Cost analysis asks the question, why do costs vary across providers for a similar service? Is it because of underutilization, varying levels of efficiency, differences in quality? Cost analysis may point to areas where costs can be contained.

Figure 1
**CONCEPTUAL FRAMEWORK OF FAMILY PLANNING DEMAND
 AND PROGRAM IMPACT ON FERTILITY**

5

APPENDIX G

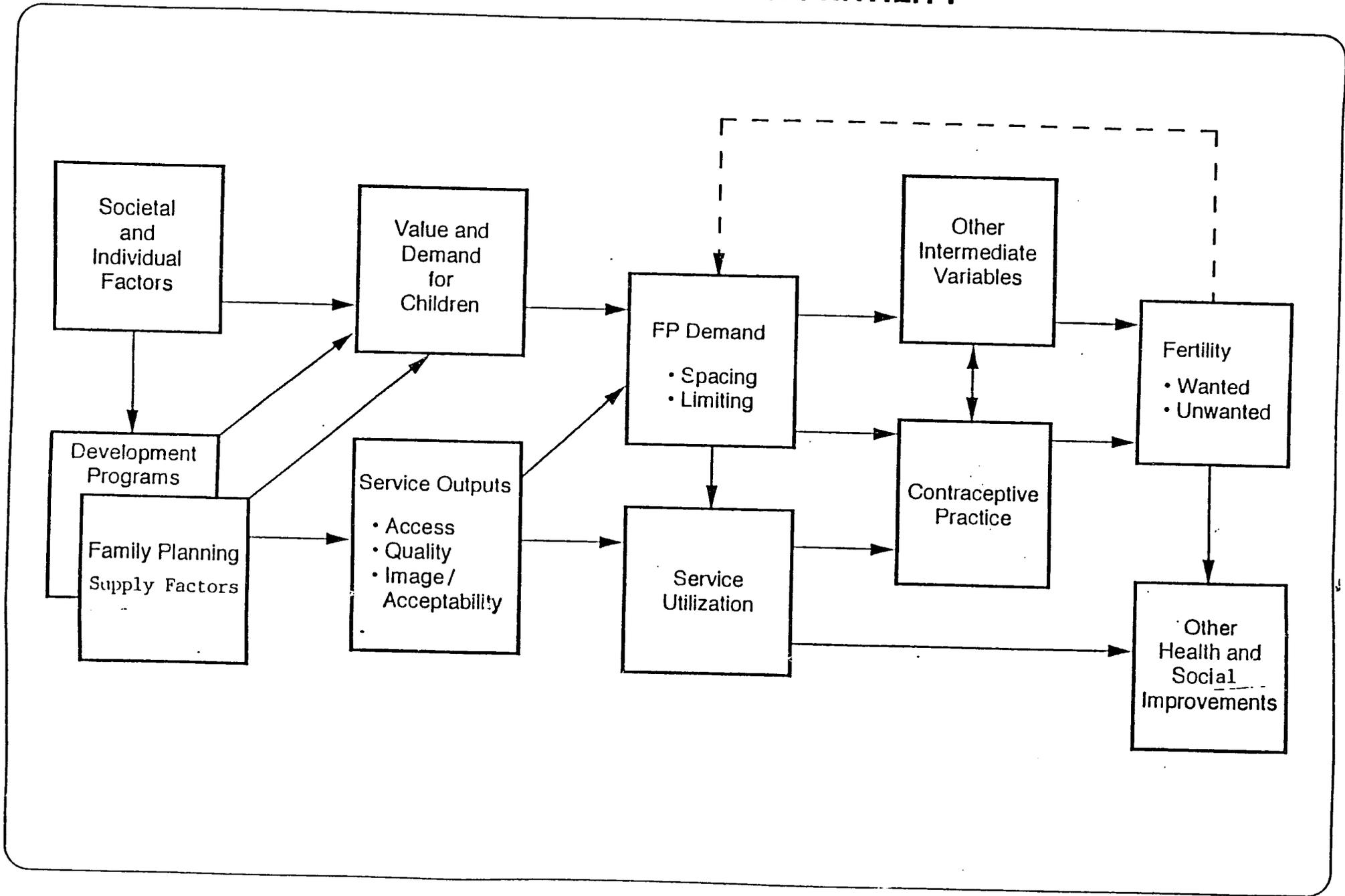
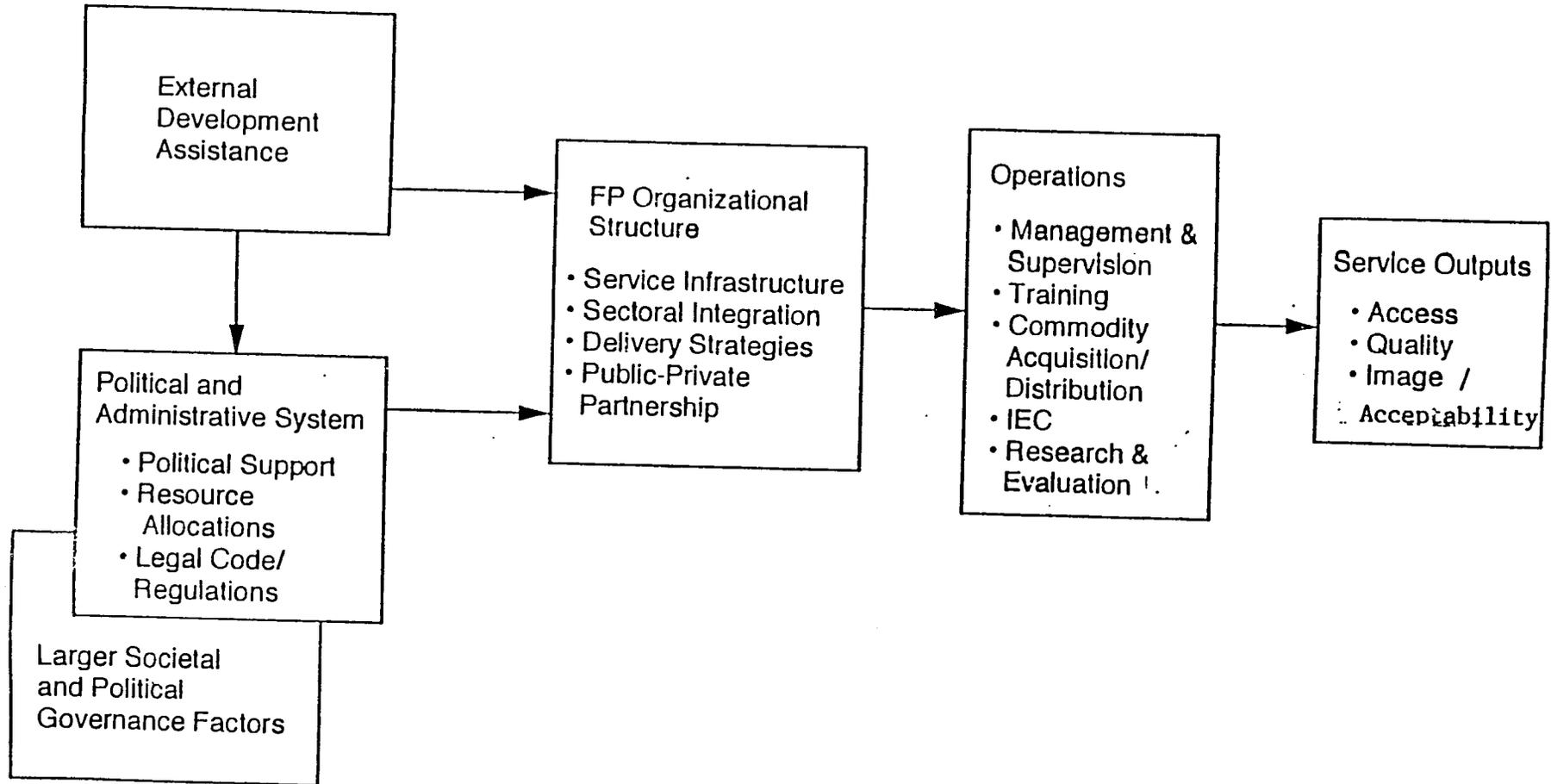


Figure 2
CONCEPTUAL FRAMEWORK OF FAMILY PLANNING SUPPLY ENVIRONMENT



ACCESS TO FAMILY PLANNING SERVICES

Complexities of measuring accessibility has been underestimated.

Little is known of the real meaning and validity of different indicators, which usually are common sense –rather than scientific– measures.

Focus Access measures refer just to **physical accessibility**

There are economic, cultural, family and other access dimensions which are not considered by conventional measures.

Those dimensions are included in studies of **costs of contraception**.

Access components

Commonly investigated

- **Distance** in miles or kilometers
- Roads & transportation (usually only public)
- **Travel time** = distance + roads & transportation
- Often separated measures by method type

Less investigated

- Waiting times, especially in the clinic.
- Woman's activity space (distance from home may be irrelevant)
- Client-provider exchanges and quality of care. (Administrative vs. real access)
- Outreach programs (frequency of home visits much more important than distance/time to the clinic)

Distance vs. travel time measures

Distance	Travel time
<ul style="list-style-type: none"> • Easier to estimate. • Probably more reliable and accurate, empirically superior. • Incomplete measure of access. 	<ul style="list-style-type: none"> • More complicated to estimate. • It has subjective elements. • Probably less reliable. • More comprehensive and thus theoretically superior

Conventional access measures: proximity and density

Proximity (nearest outlet)	Density of services
<p>Micro-data: distance/time from home to the nearest facility.</p> <p>Indicators:</p> <ul style="list-style-type: none"> • Mean distance/time to the nearest facility. • Percentage of population having a facility within X kilometers/minutes. <p>Improvements:</p> <ul style="list-style-type: none"> • Separate indicators by method type (hospital, clinical, resupply) and provider. • Setting a minimum level of quality of services provided. <p>Drawbacks:</p> <ul style="list-style-type: none"> • People often don't use the nearest. • Don't show choices available. • Misidentification of the nearest. • Cannot add up facilities. • Competition for (share of) services non considered. • No time series data. 	<p>Micro-data: geographic location of facilities.</p> <p>Indicator:</p> <ul style="list-style-type: none"> • clinics (professional hours, service hours, and so) per, say, 1000 people (couples, women in reproductive ages...) in area X <p>Improvements:</p> <ul style="list-style-type: none"> • Separate indicators by method type (hospital, clinical, resupply) and provider. • Weighing outlets by quantity and quality of services provided. <p>Drawbacks:</p> <ul style="list-style-type: none"> • Not good for small communities (many with no services, some with too many). • People go to other communities • Problems with definition of community. • Conceals heterogeneities • No household-level data

GIS-based access measures

Combine data on:

- Geographic location (coordinates) of facilities and potential users.
- Digitized maps of roads and transportation networks.
- Information about users that characterizes the demand.
- Qualitative and quantitative characteristics of facilities.

Access indicators are computed for any point in a map by adding up all facilities, weighed by the inverse of its distance to this point.

Indicator may be improved with corrections for:

- Size of the facility or any quality score.
- A distance-decay effect previously calibrated.
- Distance-penalties for transportation obstacles
- The amount of other potential users (catchment population).

A simple formula for a summary indicator of access A_i to all outlets j in a predetermined radius for a location i :

$$A_i = \sum_j \frac{S_j/C_j}{d_{ji}^b}$$

S_j = size of outlet j (e.g. yearly consultation hours);

C_j = population (couples, WRA) in the catchment area of outlet j .

d_{ji} = distance/time between j and i (may be restricted to a radius)

b = distance-decay exponent (calibrated in other studies).

Although this approach **requires a census** of all facilities, data requirements are not heavy. The coordinates of locations i and j , an estimate of catchment population, and an indicator of outlet's size are enough for computing a simple access indicator. Coordinates may be easily determined on maps or with "transponders".

Time series can be estimated easily by knowing the starting year of each facility.

Survey data collection considerations

Note 1: density-type and GIS-based access measures don't necessarily require household-survey data.

Note 2: for outreach activities, a household survey is required.

1. Data from individual respondents

- Distance/time to the nearest facility she knows (gives "perceived" rather than "actual" accessibility)
- Distance/time to the facility current users actually go.

Drawbacks:

Too subjective assessment (probable biases among non users).

Information is not available for some women.

Misidentification of nearest outlet

No information about the facility

New trends: keep record of the household's coordinates and the identification of outlets mentioned by respondents.

2. Data from knowledgeable informants

- To identify the nearest facilities (or all facilities in a radius).
- Estimates of distance/time to these facilities
- Basic characteristics of outlets (e.g. type of services provided)

Drawbacks

Hard to find reliable informants

Misidentification of outlets

Subjective and biased assessments

Facilities included are not a representative sample

3. Observation of facilities detected in 2.

- To actually measure distance/time
- To determine quantity and quality of services provided.

Drawbacks:

Facilities don't add up to a representative sample.

Official rather than real responses.

Sloppy field work and supervision because of demands of main household survey.

A big data reduction problem

New trend: "situation analysis" protocol.

PURPOSE

Quantity of services

→ Quantity of use

Sources of data

Measurement issues

Relation to fertility outcomes

→ Quantity of service utilization
(or service-assisted use)

Significance for

Evaluation

Program management

Measurement

Analytic framework

QUANTITY OF USE

3 principal data sources for measuring contraceptive use

Program-based

- 1) Commodity distribution → person-year equivalents
- 2) Client visits and records → acceptor equivalents

Population-based

- 3) Probability sample survey → user equivalents

STRENGTHS, PROBLEMS AND MAIN INDICATORS FOR TYPES OF CONTRACEPTIVE USE DATA

<u>Data source</u>	<u>Strengths</u>	<u>Potential problems</u>	<u>Key use indicator(s)</u>
Commodity distribution	Timely, comparable, aggregate, valid	Reliability	CYP
Client records	Timely, valid, aggregate	Reliability	Continuing user, new acceptor, visit volume (all by method)
Sample survey	Reliable, comparable	Validity, timeliness, sample size	Contraceptive prevalence, method mix, continuation

Why the "Contraceptive Prevalence Rate" is not a rate...

A rate measures incidence, i.e., the risk of an event to an exposed population

Prevalence is measured in proportionate terms to show the frequency of an attribute within a population

Prevalence and incidence (rate) are by definition not equivalent

What is a true contraceptive use rate is...

The rate of birth control use per 100 coitions under conditions of pregnancy risk

For evaluation, of prime consideration is what part of the rate is due to program effort.

While a measure with such precision would directly link contraceptive use with pregnancy risk reduction, it is not practical under present circumstances:

- We do not customarily record coitions
- We are interested in defining a human service population.

We could get closer to a rate definition by approximating the denominator with data on:

- reproductive-aged women
- fecund
- non-pregnant
- heterosexually active (married or in union)

and the numerator with data on:

- the number of women (with exposed characteristics) observed to be practicing birth control during sexual activity

Present data sources do not support such extensive measurement.

2

So, what we tend to do instead is ...

Measure contraceptive use in terms of

the current prevalence of contraceptive practice among reproductive aged women in union

We should not be surprised when the correlation between birth control use and fertility levels is not high within any given country, even though it is very high across countries.

Relationship between CPR and CBR

<u>Study</u>	<u>N</u>	<u>Regression equation</u>	<u>R²</u>
Bongaarts (1984)	83 MDCs and LDCs	TFR = 6.83 - .062 CPR	.85
Srikantan and Balasubramaniam (1988)	71 LDCs	CBR = 49.04 - 0.45 CPR	.85
Srinivasan (1992)	Brazil (1977-86)	TFR = 6.36 - 0.05 CPR	.63
	Indonesia (1977-86)	TFR = 5.09 - 0.02 CPR	.42

Source: K. S. Srinivasan, "A Critique on the Contraceptive Prevalence Rate", (1992)

Factors that can modify the use-fertility link

Programmatic

- Spacing vs limiting motives on contraceptive adoption
- Method mix on use-effectiveness
- Maturity on recognition of "traditional" birth control practice
- Method choice on discontinuation or switching

Intermediate variables

- Sexual activity patterns on conception risk
- Level of induced abortion on live birth outcomes
- Postpartum infecundability on conception risk
- Marriage on regular exposure to sexual activity

Exogenous, macrosocietal factors that affect family planning demand (Female status, household income, sociocultural)

Also, there are proverbial measurement errors

Respondent bias (e.g., female reporting of male methods)

Inaccurate recall

Unreliable self-reported conditions

(e.g., contraceptive use, fecundity, sexual activity,
program service experiences)

QUANTITY OF SERVICE UTILIZATION

Important in evaluating the role of organized family planning effort is the ability to distinguish between contraceptive use or fertility outcome due to the effort versus other factors.

Measuring the level and conditions of program service utilization has not been adequate in the past.

The EVALUATION Project is encouraging efforts to:

- Improve program-based statistics (management, service, and commodity data systems)
- Exploit survey opportunities to simulate an experimental design for impact evaluation
- Develop a program evaluation module for national sample surveys to investigate the interface between service supply and consumer demand

Purpose is to obtain programmatically useful information by measuring two areas not now fully addressed in national surveys

- Patterns of service utilization
- Presence and types of psychosocial costs to contraception

Referred to as DHS program evaluation module

- Philippines DHS pilot for early 1993
- Psychosocial component under development

MEASURES OBTAINED IN SERVICE UTILIZATION MODULE

Presently designed to look at patterns of service utilization with respect to last use segment of a program-supported contraceptive method

Focus on current and first sources of contraception with following data collected for each:

- Location of source(s)
- Distance, travel time, mode and costs of transportation
- Days of week services reported to be available
- Convenience of days and hours of operation
- Time spent at last visit from arrival to departure
- Stock availability of preferred/prescribed method on last visit
- FP service travel in combination with other activities
- Costs associated with service registration, contraceptive supply, examination, lab fees
- Use of another source and reason for change

ITEMS TO ADD TO PROGRAM EVALUATION MODULE PRESENTLY UNDER EXPLORATION

- Perceptions of methods
 - Use-effectiveness
 - Side effects
 - Correctness of use
 - Convenience
 - Reversibility
 - Detectability
- Sex-related attitudes
 - Sex roles
 - Sexuality
 - Body image and functions
- Social approval
 - Societal and religious approval
 - Partner approval
 - Approval of significant others
- Personality traits
 - Locus of control
 - Perception of chance

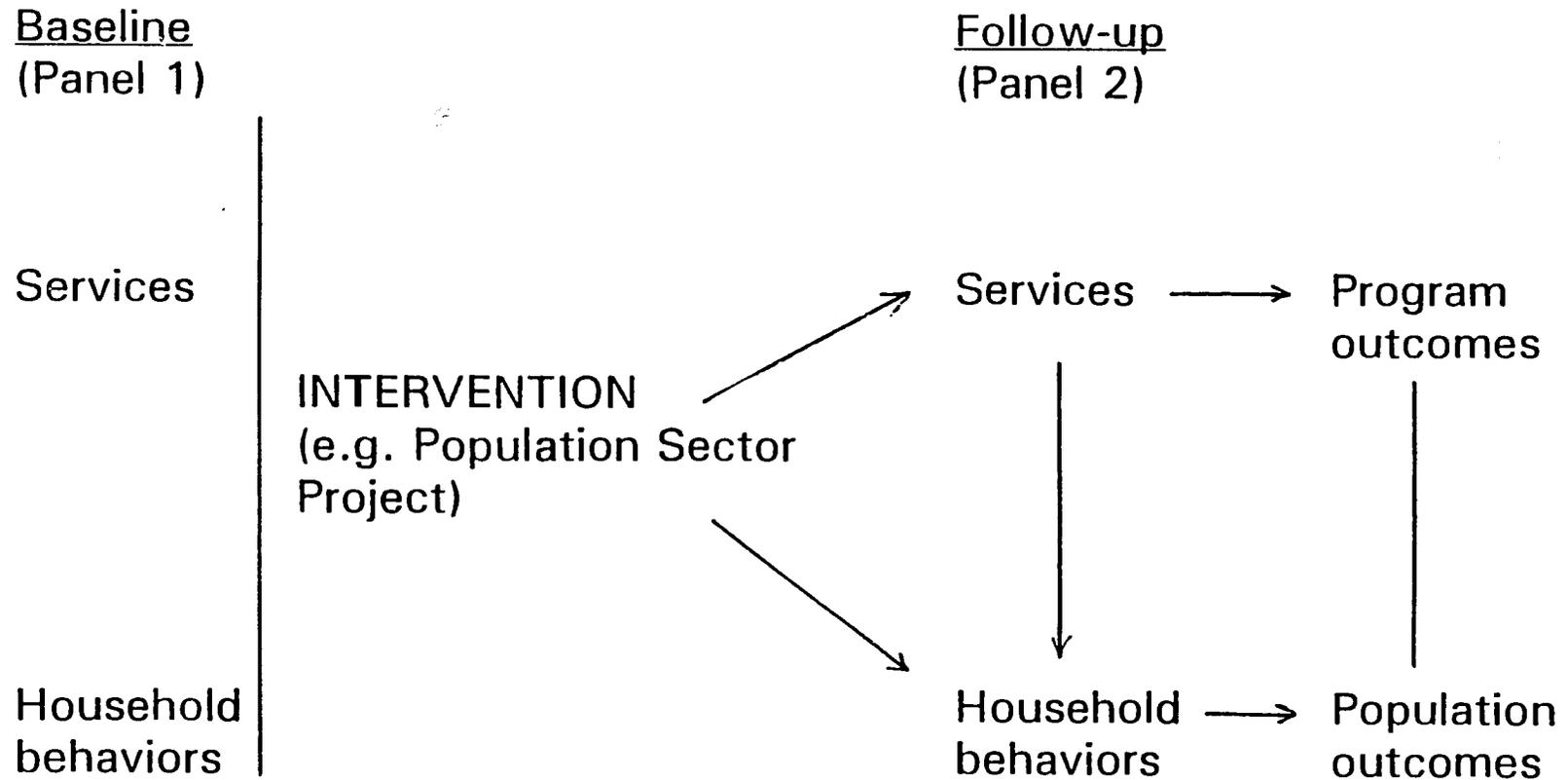
A SURVEY-BASED ANALYTIC FRAMEWORK FOR PROGRAM EVALUATION

Purpose: To approximate an experimental design in order to evaluate a large-scale family planning intervention

<u>Focus</u>	<u>Instrument</u>	<u>Sample Coverage</u>	<u>Frequency</u>
Service environment	Facility questionnaire	National	Panel (2)
Household/ family environment	Individual questionnaire	National	Panel (2)
Service utilization	Program evaluation module	Program clientele	Panel (2)
Provider resource base	Staff questionnaire	Program	Panel (2)

SIMULATED EXPERIMENTAL DESIGN

Note: Same samples of service delivery points and individual households used in both panels.



13

Analytic strategy, or how do you tell if an observed change is due to an intervention...

Use multi-level multivariate analysis

1. Multiple levels of analysis: services, consumers, providers, population-at-large
2. Linkage of service-level with individual-level data
3. Power of panel data for studying change and attributing causation
4. Probability sampling provides for treatment randomization and controls

Table 1. Number of women 15–44 years of age and percent distribution by current contraceptive status and method, according to race: United States, 1982 and 1988

(Statistics are based on samples of the female population of the conterminous United States. See Technical notes for estimates of sampling variability and definitions of terms. Data for 1988 are preliminary)

Contraceptive status and method	All races ¹		White		Black	
	1988	1982	1988	1982	1988	1982
Number in thousands						
All women	57,900	54,099	47,077	45,367	7,679	6,985
Percent distribution						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sterile	29.7	27.2	30.5	27.7	29.6	23.7
Surgically sterile	28.3	25.7	29.2	26.1	27.8	22.2
Contraceptively sterile	23.6	19.0	24.5	19.4	22.1	16.3
Female	16.6	12.9	16.1	12.5	21.6	15.6
Male	7.0	6.1	8.4	6.9	*0.5	*0.7
Noncontraceptively sterile	4.7	6.6	4.7	6.7	5.7	5.9
Female	4.7	6.3	4.6	6.3	5.7	5.9
Male	0.0	0.3	0.0	0.3	*0.0	0.0
Nonsurgically sterile	1.4	1.5	1.3	1.6	1.8	1.5
Pregnant or post partum	4.8	5.0	4.8	4.8	5.0	5.6
Seeking pregnancy	3.8	4.2	3.7	4.0	3.9	5.4
Other nonuser ²	25.0	26.9	23.8	26.2	26.9	29.6
Never had intercourse	11.5	13.6	11.0	13.9	9.7	10.3
No intercourse in last						
3 months	6.2	5.9	6.2	6.0	6.3	5.8
Intercourse in last 3 months	6.5	7.4	5.7	6.4	10.2	13.5
Nonsurgical contraceptors	36.7	36.7	37.2	37.2	34.6	35.7
Pill	18.5	15.6	18.4	15.1	21.6	19.8
IUD	1.2	4.0	1.1	3.9	1.7	4.7
Diaphragm	3.5	4.5	3.8	5.0	1.1	1.8
Condom	8.8	6.7	9.2	7.2	5.8	3.2
Foam	0.6	1.3	0.6	1.4	*0.6	1.4
Periodic abstinence ³	1.4	2.2	1.4	2.2	1.2	1.6
Natural family planning	0.4	0.3	0.4	0.4	*0.1	0.1
Withdrawal	1.3	1.1	1.3	1.2	0.8	0.7
Douche	0.1	0.1	0.0	0.0	*0.2	0.7
Other methods	1.2	1.3	1.2	1.2	1.6	1.7

¹Includes white, black, and other races.

²Includes women who had intercourse only once, not shown separately.

³Includes natural family planning and other types of periodic abstinence.

SOURCE: National Survey of Family Growth, National Center for Health Statistics. Data for 1988 are preliminary. Data for 1982 are based on a revised classification of the contraceptive intent of sterilization operations, intended to be comparable to the 1988 classification.

**SERVICE DELIVERY WORKING GROUP
THE EVALUATION PROJECT**

Unmet Need: Approaches to Measurement Based on The DHS

Prepared by: Karen Foreit

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DETERMINING NEED FOR FAMILY PLANNING

Basic Concepts

- 1 The average woman can expect to have 15 births during her reproductive life-time (ages 15-49) if she does not engage in any fertility-limiting behaviors.**

- 2 The number of births a woman will have depends primarily on 4 behavioral factors:**
 - * Sexual activity (age at first union, duration of union)**
 - * Lactation (post-partum amenorrhea)**
 - * Induced abortion**
 - * Contraception**

- 3 Delaying age at first union to age 20 and practicing prolonged breastfeeding can on average reduce the number of births to 9.**

- 4 Women who wish to space their births by more than 21 months and/or have fewer than 9 births need family planning, preferably contraception.**

- 5 Women whose contraceptive behavior is inconsistent with their reproductive intentions have unmet need for family planning.**

MEASURING UNMET NEED FOR ANY CONTRACEPTION

UNMET NEED

- * Women in union who are not using any contraception and are not pregnant or amenorrheic, and who are fecund and want to delay their next birth by 2 years or more or do not want any more children.
- * Pregnant or amenorrheic women who were not using any contraception when they became pregnant and who wanted to delay their next birth by 2 years or more or did not want any more children.

NOT IN NEED

- * Women who are not currently in union
- * Women who are using any method of contraception
- * Pregnant or amenorrheic women who were using contraception when they became pregnant (contraceptive failure)
- * Pregnant or amenorrheic women whose pregnancy was wanted at that time
- * Infecund women
- * Fecund women who want their next child in less than 2 years.

(source: Westoff & Ochoa, 1991)

MEASURING UNMET NEED FOR APPROPRIATE CONTRACEPTION

UNMET NEED

- * Women in union who are not using any contraception and are not pregnant, and who are fecund and want to delay their next birth by 2 years or more or do not want any more children (includes amenorrheic women).
- * Pregnant women who wanted to delay their next birth by 2 years or more or did not want any more children (includes contraceptive failure).
- * Women who are using a contraceptive method whose effectiveness and counter-indications are not appropriate for their reproductive intentions and health conditions.

NOT IN NEED

- * Women who are not currently in union
- * Women who are using a contraceptive method whose effectiveness and counter-indications are appropriate to their reproductive intentions and health conditions.
- * Pregnant women whose pregnancy was wanted at that time
- * Infecund women
- * Fecund women who want their next child in less than 2 years.

(note: requires local definitions of appropriate methods)

CALCULATION OF UNMET NEED FOR APPROPRIATE CONTRACEPTION

- 1. List available contraceptive methods and any local restrictions on their use.**
- 2. Classify current and potential contraceptive users by their individual characteristics.**
- 3. Define the range of appropriate contraceptive methods for each classification category, according to local availability and restrictions.**
- 4. Cross-tabulate women by their current and "needed" contraceptive method.**

Classify current and potential users

Example: PERU

REPRODUCTIVE PREFERENCES	Want [another] child within 2 years
	Want [another] child after 2 years
	Want no [more] children

REPRODUCTIVE HEALTH RISK: Peru Ministry of Health	Low: No known risk condition												
	Medium: 1 Type-I risk condition												
	High: 2 Type-I risk conditions, or 1 Type-II risk condition												
Type-I risk	<table border="0"> <tr> <td>30 years or older</td> <td>4+ pregnancies</td> </tr> <tr> <td>Eclampsia</td> <td>Hemorrhage</td> </tr> <tr> <td>Previous fetal loss</td> <td>Previous cesarean section</td> </tr> <tr> <td>Premature delivery</td> <td>Perinatal mortality</td> </tr> </table>	30 years or older	4+ pregnancies	Eclampsia	Hemorrhage	Previous fetal loss	Previous cesarean section	Premature delivery	Perinatal mortality				
30 years or older	4+ pregnancies												
Eclampsia	Hemorrhage												
Previous fetal loss	Previous cesarean section												
Premature delivery	Perinatal mortality												
Type-II risk	<table border="0"> <tr> <td>Anemia</td> <td>Pulmonary disease</td> </tr> <tr> <td>Mental illness</td> <td>Cancer</td> </tr> <tr> <td>Cardiovascular</td> <td>Diabetes</td> </tr> <tr> <td>Neurological</td> <td>2 previous cesarean sections</td> </tr> <tr> <td>Renal disorder</td> <td>Congenital disorders</td> </tr> <tr> <td>Hepatic disorder</td> <td>Other chronic conditions</td> </tr> </table>	Anemia	Pulmonary disease	Mental illness	Cancer	Cardiovascular	Diabetes	Neurological	2 previous cesarean sections	Renal disorder	Congenital disorders	Hepatic disorder	Other chronic conditions
Anemia	Pulmonary disease												
Mental illness	Cancer												
Cardiovascular	Diabetes												
Neurological	2 previous cesarean sections												
Renal disorder	Congenital disorders												
Hepatic disorder	Other chronic conditions												

Cross-tabulate current and "needed" contraceptive methods

example: PERU

Current Method	Method Needed			Total
	None needed*	Temporary	Long-lasting	
None	15	5	23	42
Temporary	5	7	23	34
Long-lasting	2	--	21	23
Total	22	12	67	100

* No method needed because the woman either wants another child now or is infecund

82

UNMET NEED FOR ANY CONTRACEPTION vs UNMET NEED FOR APPROPRIATE CONTRACEPTION

ANY METHOD MODEL

Advantages

- * Easily standardized

Disadvantages

- * Does not consider user's characteristics
- * May underestimate program needs

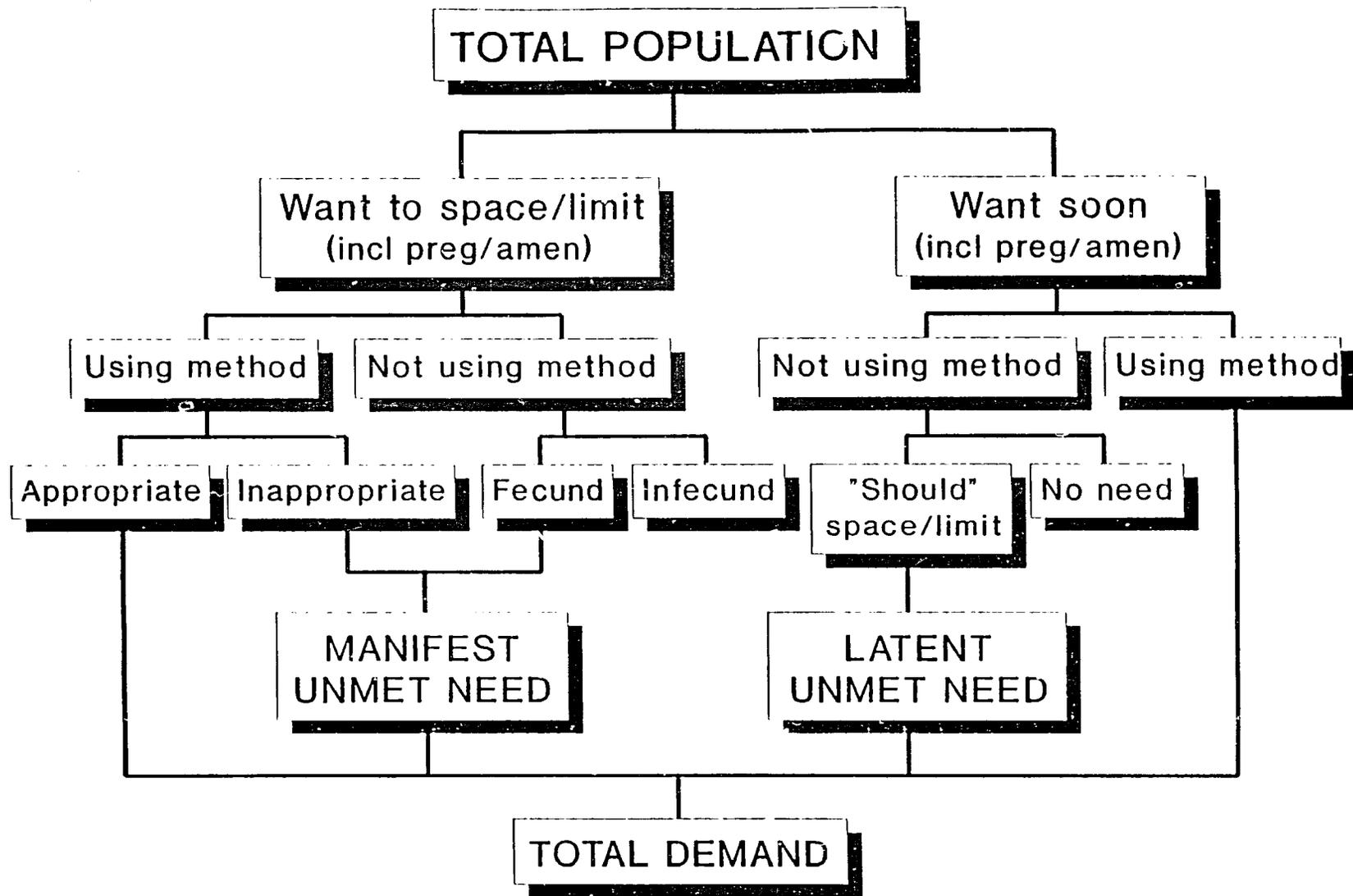
APPROPRIATE METHOD MODEL

Advantages

- * Can be adapted to local conditions
- * Provides estimates of potential method switching

Disadvantages

- * Not standardized across countries



Manifest vs. Latent Unmet Need for Contraception

(adapted from Palmore et al., 1990)

Appendix K

Evaluation Results Service Delivery Working Group meeting December 9-10, 1992

The following items were evaluated on a scale from 1 (not at all) to 5 (entirely). Mean responses for each item are provided. Twelve participants responded to the evaluation form.

<u>Objectives regarding Quality</u>	<u>Mean</u>
1. To review the indicators of quality developed by the Quality subcommittee in June/September 1992	4.1
2. To examine methodologies which have been used to measure quality in family planning service delivery	4.2
3. To identify unresolved problems in collecting and analyzing data on service quality	4.0
 <u>Objectives regarding Quantity</u>	
1. To examine state-of-the-art techniques for measuring "quantity" in terms of access, service utilization, contraceptive prevalence, and unmet need.	4.0
2. To identify the utility of these quantity data for host country agencies and CAs.	3.4
3. To identify the role of host country agencies and CAs in generating/collecting/analyzing different types of quantity data.	3.0
4. To identify future directions for work in this area by SDWG.	3.9
 <u>Objectives regarding Cost</u>	
1. To examine the possibility of forming a subcommittee on cost.	4.1
2. To identify the priority issues to be addressed with regard to cost.	3.7

Appendix K

Evaluation Results Service Delivery Working Group meeting December 9-10, 1992

Comments:

- I believe we met and exceeded all of our objectives! It was an excellent and very productive two days. I really feel as though we are advancing the field forward; balancing the operational and theoretical; and setting an agenda to answer and resolve important issues.
- Particular note for very good facilitation of the meeting by Jane Bertrand.
- Excellent focus and expertise. An invigorating two days.
- The issue of sustainability seems to have been buried in cost. Would like to see Marcia's (Townsend) proposal re-surface.
- We really need to get clear about the consistent level of analysis. I see us going up and down the levels. Indicators need to focus on some consistent unit.

The following items were evaluated on a scale from 1 (very dissatisfied) to 5 (very satisfied). Mean responses for each item are provided, n=11.

DAY 1

	<u>Mean</u>
Organization of Program	4.5
Topics covered	4.5
Discussion flow	4.7
Meeting facilities	3.9
Materials for distribution	4.4
Presentations	4.5

Other comments:

- Phone access was hard on site
- The room was too narrow. Materials from all presentations should have been distributed. Meeting in Rosslyn are more convenient.

Appendix K

Evaluation Results Service Delivery Working Group meeting December 9-10, 1992

DAY 2

	<u>Mean</u>
Organization of Program	4.5
Topics covered	4.4
Discussion flow	4.5
Meeting facilities	3.9
Materials for distribution	4.4
Presentations	4.6

Other comments:

- It was interesting to hear about the various topics, but also somewhat frustrating to not discuss them in depth

GENERAL

	<u>Mean</u>
Contact from organizers	3.7
Balancing needs/interests of different audiences (trainers, evaluators, AID, CA Staff)	4.2
Minutes of meetings	3.8

Other comments:

- EVAL staff are wonderful at organizing and facilitating these meetings.
- Very good groups.
- Great facilitation