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Measuring Service Practices: What Have We Learned?

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Family Health International is a nonprofit research and technical assistance organization dedicated to contraceptive development, family planning, reproductive health and AIDS prevention around the world.

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Measuring Service Practices: What Have We Learned?

I. Introduction	1
II. Issues in service practice research	2
III. What are existing service guidelines and practices?	6
IV. Impact of introducing or changing service guidelines	12
V. Changing practices: balancing safety, access, and quality	13
VI. Issues and recommendations for future research	15
References	21



I. Introduction

Family planning programs are increasingly investing resources into improving clients' access to quality services. This focus on quality is an extension of the concern for both safeguarding the health of women and helping women achieve their reproductive goals. The objective of improving quality of care can be furthered by providers adhering to service delivery practices which are based on current scientific information regarding contraceptive methods. Over the past 30 years contraceptive methods have been made safer, yet many of the present precautions and prescribing practices for the pill and other contraceptives are based on outdated information, or were devised for contraceptives that have since been reformulated (King et al. 1993). Ironically, the objective of providing quality care may be hindered when providers adhere to service delivery practices which are based on outdated information. Instead of preserving women's health, some practices merely pose barriers to contraceptive access. Other practices which are necessary for the safe provision of contraceptive methods are sometimes ignored. Thus, an important step in improving quality of care is evaluating service delivery practices.

In 1992, Shelton, Angle and Jacobstein (1992, 1335) defined "medical barriers" as "dysfunctional practices derived at least partially from a medical rationale which result in a scientifically unjustifiable impediment to, or denial of, contraception." They identified seven categories of medical barriers: inappropriate contraindications, eligibility barriers, process/scheduling hurdles, provider bias, regulatory barriers, limits on who can provide services and inappropriate management of side effects. According to Shelton et al. (1992, 1335), "Some individuals might argue that what we call medical obstacles are examples of good quality care....we agree that many clinical practices both help to make the best contraceptive choice and provide secondary health benefits such as screening for STDs. The challenge is to separate the wheat from the chaff."

This delineation of medical barriers and their relationship to quality of care sparked considerable discussion and research in family planning organizations (Bertrand et al. 1995). Some felt the term "medical barriers" itself was too negative and that the attention given to removing medical practices was misguided (Collins 1992). Others argued that practices may constitute medical barriers in some settings but not others, depending on "access to medical facilities and good quality follow-up of users, and the psycho-social environment" (Faundes 1994, 1-2). Various researchers have conducted studies of medical barriers in an attempt to measure both their existence and impact on family planning use and health. Others incorporated medical barriers issues into larger,

broad-based analyses of service delivery practices. Still others have designed training or policy interventions to improve service practices while reducing medical barriers.

After more than three years of studying service delivery practices, and particularly medical barriers, it is time to reflect on the lessons that have been learned. First, this paper presents two issues in service practices research: advances in defining what constitutes appropriate practices and the dilemma of program managers who must design service protocols and guidelines. Next, the paper considers the role of research in aiding program decision-makers and suggests key research questions and methodologies to address them. Finally, the paper recommends directions and issues for future research in service practices.

II. Issues in service practice research

A. Consensus on appropriate service delivery practices

A central issue in service practice research has been the lack of consensus, even among international experts, on which service practices and guidelines are necessary and appropriate for the safe provision of contraceptives. A recent analysis of eight international health and family planning organizations revealed inconsistency among the organizations' recommended guidelines for providing various contraceptive methods (Adrian et al. 1992). Labeling of indications and contraindications was not always consistent, nor were lists of side effects or schedules for follow-up. A survey of World Health Organization (WHO) collaborating centers and family planning clinics supported by International Planned Parenthood Federation (IPPF) found that "prescribing practices vary widely between countries/clinics" (WHO 1992). An analysis of guidelines for use of the intrauterine device (IUD) found similar confusion among protocols (Angle, Brown and Buekens 1993). A further disagreement is the role that international guidance can and should play in the development of national guidelines.

A group of international medical experts worked to develop technical guidance for family planning programs on hormonal contraceptive methods and IUDs (Technical Guidelines Working Group 1995). Even after the publication of the guidance, while group members and numerous external reviewers agreed on much of the guidance, some points will still be debated, and it may be impossible to reach consensus on some issues related to the provision of contraceptives. Table 1 presents a few examples of areas of consensus and disagreement for several types of service guidelines. As a result of a meeting sponsored by WHO in 1994, that organization has issued guidelines on eligibility criteria for contraceptive methods (WHO 1995). With

the imprimatur of WHO and the concurrence of other organizations who participated in the 1994 meeting, the guidelines are likely to be considered credible by most country programs.

Service delivery guidelines, also referred to as norms or standards¹, should be "systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances," (Audet, Greenfield and Field 1990). Ideally, such guidelines take into consideration current scientific evidence, accepted clinical practice and client needs. The design of service guidelines "is the step that converts all the accumulated research, development, and experience into practical recommendations that largely determine what happens to patients" (Eddy 1990; Calla 1992). According to Cohen et al. (1982, 1044), "Much of current medical practice is based upon precedent alone...Consequently, we frequently observe high utilization of interventions of questionable efficacy, while those of demonstrated value may be underutilized." In light of the importance of service delivery guidelines in determining the scope and quality of care given to clients, and in spite of the lack of consensus on appropriate service practices, how can research facilitate decision-making at the program level?

B. Facilitating program decision-making

Some program decisions about service practices should be relatively straightforward: where a consensus on the necessity or superfluity of a specific practice exists, individual programs should regularly update their guidelines, training and practices appropriately. For example, in order to be consistent with recommendations based on current scientific data, programs should allow nulliparous women with no contraindications to use DMPA.

Many service practice issues are not so easily resolved. Where there is no consensus on the necessity of specific guidelines, individual programs must choose which practices they will endorse. This decision should be based on up-to-date scientific information, the program's goals and objectives, available resources, current service practices, and perceived benefits and costs of alternatives. Individual programs will and should make different choices depending on the local setting and resource availability. Political compromise is sometimes necessary.

¹The term protocol is also used to signify service delivery guidelines. Protocols, usually more specific than guidelines, are algorithms, or step-by-step decision-making trees, usually for the medical provision of care.

	Consensus	Disagreement
Regulatory	To protect clients' safety, new contraceptive methods should be tested thoroughly in humans before being introduced to family planning programs worldwide.	Should individual countries conduct clinical trials before approving a contraceptive method?
Types of providers	Distribution of condoms does not require a medical background.	Should OCs be available without prescription? Must a physician or trained nurse assess each client before initiating OC use?
Contraindications	Known pregnancy is a contraindication for all hormonal methods and IUDs.	Should programs allow nonmenstruating clients to get pills or to have an IUD inserted? Should programs require nonmenstruating women to have pregnancy tests before getting a supply of pills? Details of contraindications for most methods, e.g., should migraine headaches be an absolute or relative contraindication for OC use?

Table 1: Examples of Areas of Consensus and Debate in Family Planning Service Practices

	Consensus	Disagreement
Other eligibility criteria	<p>There is no medical justification for requiring marriage or a spouse's consent before supplying a client with a nonpermanent method.</p> <p>Parity should not be necessary for use of DMPA because it does not cause infertility. Even nulliparous women can use the method.</p>	<p>Which methods should be available to adolescents?</p> <p>Should the IUD be available to nulliparous women?</p> <p>How should the health of clients of community-based distribution (CBD) programs be screened for contraceptive use?</p> <p>Should Pap smears be mandatory prior to prescription of all methods?</p> <p>Should pelvic exams be undertaken prior to prescription of hormonal methods?</p>
Process/scheduling factors	<p>STD screening is important for IUD users in high-risk populations.</p>	<p>How many revisits are necessary for IUD users?</p> <p>How often, if at all, should OC users be required to make a medical revisit, e.g., for weight and blood pressure?</p> <p>Should nonmenstruating women be given OCs?</p>

Research can play a key role in helping programs evaluate the costs, safety and risk of particular service practices. According to WHO (1992, 1), "Given the lack of trained personnel and financial resources in developing countries, it is important that the available resources for family planning services be utilized such that a maximum number of people are able to benefit from those services." Thus, information on the trade-offs and impact of changing service practices becomes especially important in resource-poor environments.

To facilitate program decision-making on appropriate service practices, research can be undertaken to answer four questions:

- What are the existing service guidelines and current practices in this family planning program?
- What are the costs and benefits, including issues of safety and access, of changing specific service practices?
- Once a guideline has been changed, have providers modified their service practices accordingly?
- What impact has this had on access and quality of care?

Researchers have taken a variety of approaches to studying service practices in family planning, measuring the effects of modifying service practices and evaluating the success of interventions to change providers' practices. Appendix Table 1 contains a summary of the methodologies that have been used to study service practices and medical barriers, sample research questions for each method, and finally, strengths and weaknesses of each approach.

III. What are existing service delivery guidelines and practices?

Assessing current service practices entails examining two separate components: written guidelines and protocols, and the actual practices of service providers. For the first component, an inventory of policies and guidelines can provide important information about written laws and guidelines pertinent to family planning. For the second component, studies of actual service practices have to be undertaken in order to provide a clear picture of what actually transpires during interactions between providers and clients in family planning service settings.

A. Legal and regulatory issues

A legal and regulatory analysis, consisting of an inventory and review of laws, regulations and service delivery guidelines that affect family planning, can provide a policy context for understanding service guidelines and practices. The OPTIONS II project manual on legal and regulatory reform provides a checklist of laws and regulations that may deter family planning use in a given country, including: restrictions on specific methods; restrictions on service delivery and distribution of contraceptive methods; registration, licensing and certification policies for methods, providers and clinics; tax and import policies; advertising regulations; patent and trademark laws; and price controls (Kenney).

For example, a legal and regulatory analysis in Egypt found that, while there are many positive aspects of the policy environment for family planning in that country, in order to increase contraceptive prevalence, constraints to the delivery and use of both public and private sector services would have to be reduced. The list of next steps to improve access to contraception in Egypt includes, among other recommendations:

- expanding the availability of injectables and mini pills by increasing provider knowledge, targeting recruitment to specific types of clients and expanding the range of authorized providers;
- reducing general constraints to access by developing policies to speed introduction of contraceptive products, expanding use of mass media, increasing the range of personnel authorized to provide services, and educating providers to improve access to voluntary sterilization (Ravenholt and Russell, 1993).

B. Service delivery guidelines

Another aspect of assessing service practices is to review service delivery guidelines in detail. The purpose of such a review is to assess the practices that are considered unnecessary and should be revised or dropped, and those that are necessary for the safe provision of care and should be emphasized. In some cases, explicit guidelines do not exist, but practices have been "codified by existing circulars and contradictory orders" (INTRAH 1993). That was the case in eight sub-Saharan countries that have recently created national family planning standards with assistance from the International Program for Training in Health (INTRAH). By examining existing practices as espoused through scant documentation, and current scientific information

on contraceptive methods, policy-makers and medical staff in each country reached consensus on new guidelines. Examples of practice guidelines that were changed included lifting restrictions on the nonclinical distribution of oral contraceptives, and relaxing age and parity requirements for injectables. Examining service delivery guidelines is a start, but may not identify all significant medical barriers in a country or measure the relative importance or impact of each barrier.

Group discussions with policy-makers and providers have also been used to uncover medical barriers. These discussions have mostly taken the form of national or regional meetings at which the concepts of service practices and medical barriers are introduced and providers, together with policy-makers, discuss which barriers are prevalent in their programs and steps that can be taken to overcome the barriers. Examples of such meetings include a national meeting in Kenya which took place as part of a contraceptive technology update seminar in 1993 (Huber and Jesencky 1993), and a regional meeting in the Philippines in 1993 (FHI 1993). At the meeting in Kenya, some of the recommended changes included removing spousal consent for female sterilization, eliminating the pelvic exam as a requirement for women to initiate or continue use of oral contraceptives, and removing age and parity criteria for both the injectable and implants. Some of the key barriers identified at the meeting in the Philippines included limits on the number of pill cycles that can be given, exclusion from oral contraceptive use of women with diabetes, heart disease or migraine headaches, and provider bias against barrier methods and spermicides.

C. Service delivery practices

There may be a significant gap between *de jure* and *de facto* standard operating procedures. For that reason, policy and guideline analyses are most useful when supplemented with data on the actual service delivery practices of family planning providers. According to Cohen et al. (1982, 1044), "The causes of this discrepancy between ideal and actual practice are manifold and relate to issues of technology diffusion, knowledge, and attitudes of practitioners and patients, and to a wide variety of incentives determined by the personal, professional, social, and economic environment." Various methods have been used to study service practices.

Provider surveys, tailored to elicit detailed information about providers' service delivery practices and opinions, are commonly used. As the primary point of contact between clients and the family planning program, providers are not only essential sources of information but also ultimately the agents for improving service practices. Provider surveys can furnish fairly detailed information about provider service delivery practices. In interpreting the data, however, researchers must keep in mind a potential

source of bias: providers may sometimes report what they think the interviewer wants to hear, rather than what they actually do. A series of provider observation sessions, client surveys, or use of simulated clients may serve to validate results from a provider survey and enrich the analysis.

A provider survey in Jamaica, for example, assessed service delivery practices of private sector providers in an effort to determine the consistency of care given to family planning clients and to examine whether these practices are based on up-to-date scientific information (Bailey et al. 1994; Hardee et al. 1995). The survey found that practices vary among private providers. Depending on which provider they see, clients with similar characteristics often undergo a more stringent screening process and may be subject to more exams and laboratory tests. A client may be given a method by one provider and not by another. Private physicians follow some practices (e.g. lab tests, frequent follow-up visits for pill and IUD use, rest period requirements) which do not have clear benefits. Some doctors do not screen for important contraindications that may preclude some method options (e.g. unexplained irregular bleeding, tobacco smoking and age, cardiovascular problems, PID/STDs). Though many practices in Jamaica are justified due to local conditions (e.g. higher than average rates of hypertension and diabetes), others were found to be unnecessary for the safe use of contraception.

Provider surveys have also been undertaken in Guatemala (MOH and OPTIONS 1991), and Senegal (Galway 1992). The study in Guatemala found that nurses were underutilized in providing family planning services; the parity criteria denied all nulliparous women access to a contraceptive method, including barrier methods; spousal approval requirements limited access to certain methods; unwarranted contraindications were used to screen clients from many contraceptive methods; and provider bias was evident towards family planning in general and to hormonal methods in particular. In Senegal, Galway (1992) noted that

The clinic interviews gave the impression that the procedure to obtain contraception is inordinately medicalized. Providers call clients "les malades" and do as thorough a physical examination as their medical environment permits (often including a request for urine, blood, STD or Papanicolaou smear tests). Providers are very concerned about the health dangers of contraception and will often deny pills or an IUD to a woman unless she is in perfect health and has had a live birth.

Observation can be used to assess the actual practices of service providers. As providers question clients, observers can note the contraindications they list, and the eligibility criteria they follow. Observation can be used to assess, for example, overemphasis on certain methods by providers. Providers may not be aware that the "best behavior" they assume during observation involves unnecessary medical practices, or that they might be ignoring important practices (e.g. screening for STDs among IUD users) that ensure quality care for clients. Observations can yield a more realistic picture of services actually provided than can provider surveys. For example, while 98 percent of providers in the Ghana Situation Analysis study said they took a medical history of clients, only 80 percent were observed to do so. Likewise, while 89 percent of providers said they conducted a pelvic exam for IUD use, 58 percent were observed conducting a pelvic exam (Ghana Statistical Service 1994).

Simulated or mystery clients can be trained to visit family planning clinics as "clients" with the purpose of observing services being provided (Huntington and Schuler 1993). Simulated clients have been used to assess training programs, provider-client interaction and also the treatment by providers of different socio-economic groups (Schuler et al. 1985). Simulated clients in Kenya helped identify provider bias as one factor contributing to the decrease in use of IUDs in that country (Stanback, Omondi-Odhiambo and Omuodo 1995). Simulated clients were used in Jamaica to study the service delivery practices of public sector and NGO providers--particularly the information clients were given on each contraceptive method. While useful information was obtained, the reliability of detailed questions on lists of contraindications, advantages and disadvantages and how to use each method was somewhat questionable. Although educated interviewers were used as simulated clients and they received training on contraceptive methods prior to visiting the clinics, it is not clear how much detailed information they were able to retain about each method, even immediately following their visit (McFarlane et al. 1996).

Situation analysis studies, which use a variety of research methods to collect data on the availability, functioning and quality of family planning provided in clinical service delivery points (SDPs), have also attempted to obtain relevant information on several medical barriers. SDP staff are interviewed about restrictions (e.g. age, parity, consent of spouse, marital status, and provider bias), and their recommendations for clients who want to space or stop childbearing. Data on service practices are collected through a combination of the research methods noted above, including provider surveys, observations and client surveys.

These data should be interpreted with caution, because, according to Mundy (1993, 1) "The staff questionnaire elicits responses from providers which reflect their perceptions and feelings and cannot, therefore, be assumed to reflect actual events and so give a

clear indication of the prevailing situation." The providers are also observed, in order to elicit information on unnecessary procedures (process hurdles) and on provider bias (overemphasis on certain methods.)

Situation analysis studies in Tanzania and Nigeria showed that providers reported age restrictions for oral contraceptives, injectables and female sterilization. Users of injectables and sterilization were subject to parity restrictions. Spousal consent is more important in Tanzania than in Nigeria. Providers in the two countries showed biases for and against different methods. For example, in Nigeria, 47 percent of providers recommended the IUD for spacing, compared to only 8 percent in Tanzania (Mundy 1993).

The situation analysis methodology is being revised to include more information on service practices. For example, in the Ghana Situation Analysis in 1993, staff were asked, by method, what were the major problems for which a client should return to the clinic, and if there were any methods they would not recommend to clients (Ghana Statistical Service 1994). In other more recent situation analysis studies, providers have also been asked about their preferences for methods for spacing and limiting and which methods they would never recommend (Mundy 1993; The Population Council 1994). However, as noted by Twum-Baah and Stanback (1995), "In spite of its breadth and depth, the situation analysis methodology is, by definition, too streamlined to attempt to determine the reasons for practices that may restrict client access to family planning services."

As a follow-up to the Ghana Situation Analysis, the Ghana Statistical Service and Family Health International conducted a study of providers in the service delivery points judged to be most likely to be affected by medical barriers. In this follow-up study providers were interviewed to investigate why, for example, they place age, parity, spousal consent and marriage restrictions on clients? why they require IUD clients to make so many follow-up visits? why they perform routine pelvic exams on acceptors of hormonal methods? why providers believe that complete physical exams encourage clients to come to clinics? why providers perform certain clinical and laboratory exams and whether they understand the results? why oral contraceptives are only provided to menstruating women? and why oral contraceptive users are not provided with more pill packets per visit? One conclusion of this study was that "providers in this sample showed inadequate knowledge of the contraindications to and side effects of modern contraceptive methods. Their goal of protecting their clients is admirable, but in exaggerating the dangers of contraception, providers may be doing more harm than good" (Twum-Baah and Stanback 1995, 25). The study found that providers do not trust nonmenstruating women to begin taking pills at the appropriate time, and they demonstrated an over-reliance on laboratory tests of questionable utility

in screening for contraceptive use. Furthermore, the study also concluded that providers often—if inadvertently—try to protect society’s morals by denying services to unmarried clients and speculating on the fidelity of married ones.

IV. Impact of introducing or changing service guidelines

Studies can be used to measure the impact—on access to family planning and quality of services—of changes in service practices that result from introducing or changing service delivery guidelines. In addition to the methods noted above to assess the effects of changing specific practices, clients must be included in studies of impact. Surveys of clients have been used to assess the completeness and accuracy of the information given to clients by providers. Client surveys can also be used to assess which types of clients requested specific methods but did not receive them. Were the clients told by providers that they could not use a method due to age, parity or other screening criteria? Client surveys can also elicit information on laboratory tests the clients were told to undergo and how often they were told to return for follow-up visits. One drawback of client surveys is that clients are not always aware (nor should they be expected to be aware) of proper service delivery practices, or perhaps of the subtle persuasion providers might use to convince clients to use a certain contraceptive method. Depending on the information desired, it is sometimes more efficient to train simulated clients to attend clinics to help assess service practices.

A recent study in Cameroon measured service provider adherence to the MCH/FP service policy standards and medical protocols, developed by the Cameroon Directorate of Family and Mental Health (DFMH), with technical assistance from INTRAH. The study followed a consensus process to list the main barriers to be addressed in the service delivery guidelines. The DFMH, in collaboration with INTRAH and FHI, sponsored a series of provincial dissemination seminars designed to sensitize service providers to the new medical protocols. Using surveys of clients, service provider practices were reviewed before and after the workshops in order to measure change in provider behavior. In hindsight, the research team said they should have considered using simulated clients due to the time required to recruit a sufficient number of new clients to interview.

The results from the study in Cameroon show that, for the most part, provider practices did not change after the dissemination of the guidelines. It should be noted that this study only contains one follow-up survey of providers and clients at three

months after the new guidelines were disseminated.² There are a number of reasons that the new guidelines were not successful in changing provider practices. First, they were not specific enough in addressing existing medical barriers, particularly eligibility criteria such as minimum age and parity requirements. For example, the guidelines stated that all women of reproductive age (except adolescents) should have access to injectables. However, the documents did not specifically tell providers not to use age and parity criteria to prescribe particular methods. In addition, the guidelines did not mention one of the most pervasive barriers: the requirement that women be menstruating to receive oral contraceptives. Furthermore, the guidelines did not state that lab tests and pelvic exams (generally considered unnecessary process hurdles) should be the exception rather than the rule. Finally, the dissemination seminars were not designed to reinforce information on medical barriers. They emphasized the main material in the guidelines, namely, how to provide methods, and how to deal with contraindications and side effects. Consequently, providers did not appreciate the importance of reducing medical barriers because it was not brought to their attention. It should be noted, however, that at least one barrier—the number of cycles of pills given to clients—was removed.

V. Changing practices: balancing safety, access, and quality

It is important to assess the impact of changing service practices on safety as well as access and quality. According to Audet, Greenfield and Field (1990), "neither developers nor users of guidelines have shown a strong commitment to the scientific evaluation of the impact of guidelines on professional behavior, patient outcomes, or health care costs." In many cases, there is disagreement as to whether the elimination of a medical service results in the removal of a medical barrier or in the elimination of a needed service and therefore in a decrease in the quality of care. To measure the safety effects of service practices, "we need to examine which so-called barriers, if removed, would actually undermine quality (e.g. requiring a pelvic exam and assessing STD risk before inserting an IUD) and which would improve quality (e.g. requiring spousal consent before providing clinical methods" (Mensch 1994).

While there appears to be a consensus that lab tests should not be routinely required for acceptors of hormonal methods, there is no consensus for other methods. For example, while most would agree that a clinic visit for acceptors of OCs in a community-based program is not necessary, in many countries in sub-Saharan Africa, these visits are considered necessary by ministries of health and family planning

²Another follow-up, scheduled for six months after the dissemination of the guidelines, had to be dropped from this study due to the closing of the local office of the funding agency, USAID.

associations. Another area lacking agreement is the number of recommended follow-up visits for acceptors of IUDs. Most international guidelines now recommend a visit at one month and at one year, but many programs recommend far more visits (Janowitz et al. 1994; Bailey et al. 1994).

How can programs decide on the appropriate constellation of services? Policy-makers and program managers need to understand that any reduction in recommended or required medical visits will result in more women receiving or continuing methods they should not use. If that number is acceptably low, when weighed against the costs to women and clinics of these visits, then a decision should be made not to require or even recommend the service. In countries with high maternal morbidity and mortality, it could be argued that changes that reduce barriers to method use will decrease mortality and morbidity by increasing acceptance of methods and decreasing discontinuation. Service delivery points could use resources freed up by the decrease in revisits, for example, to provide better services to other family planning or reproductive health clients.

A study undertaken in Ecuador provides an example of research to determine the optimum number of revisits for IUD use. The purpose of this cross-sectional study, conducted by CEMOPLAF (an NGO in Ecuador) with assistance from INOPAL and FHI, was to determine the number of undetected problems under different follow-up regimens. New IUD acceptors who made revisits were asked the motivation for the visit (health problems or "following instructions"), whether the visit would have been made if the woman had not been told to come back, and symptoms experienced. Service providers gave information on health problems identified in the visit. This information was then used to estimate how many undetected health problems would result if the clinic were to reduce the number of recommended revisits. The study found that CEMOPLAF could eliminate some follow-up visits without increasing risks for IUD users (Foreit et al. 1994).

Because women may not make the decisions that they say they would, a prospective study was conducted in Mexico to determine what would actually happen if the number of recommended IUD revisits were reduced. The 13-month study provided information on the number and type of problems and subsequent medical interventions under two different scenarios: recommended visits at one, three, six and 12 months postinsertion and recommended visits one and 12 months postinsertion. Although neither group made, on average, all of the recommended revisits (however the four-visit group made about twice as many revisits as the two-visit group), the results showed that women in the four-visit scenario were diagnosed with more IUD-related side effects requiring treatment than were women in the two-visit scenario. The data in this study require further analysis, however, because it is not clear if the findings

reflect "over-diagnosis" by physicians, who tended to treat women for genital tract infections without laboratory confirmation. Moreover, program costs of the four-visit scenario were, as anticipated, much higher than costs of the two-visit scenario since so many more visits were made under the four-visit scenario. In fact, the cost was 84 percent greater in the four-visit than the two-visit scenario (Cardenas et al. 1995).

VI. Issues and recommendations for future research

The studies highlighted in this paper point out the complexity of changing service delivery practices. In order for service providers to offer good quality services, based on up-to-date information on contraceptive methods, it is clear that simply changing guidelines is not sufficient. Adequate dissemination of the new or revised guidelines is necessary as is close supervision and monitoring to ensure that practices actually change. According to Kameron, Director of the U.S. Agency for Health Care Policy and Research's guideline-writing office, "Just holding the book up to your head and saying a mantra is not going to change behavior. That transition step, the implementation, is also what we have to be concerned about" (Kameron, in Gesensway 1995). Kameron adds that it is important, however, that using new or revised guidelines should not unduly increase either providers' workloads or the cost of providing services.

It is clear from the studies undertaken to date on service delivery practices and medical barriers that there are five factors that tend to explain why providers adhere to certain practices.

- 1. Laws and regulations governing family planning and reproductive health.** Service providers are constrained in their practices by the laws and policies governing family planning and reproductive health in their countries. Studies on service practices should be grounded in an understanding of the legal and policy context in which the providers work.
- 2. Basic and refresher training received among service providers.** Most providers learned about family planning during basic or in-service training and it is likely that their practices are based primarily on what they were taught during training. We were not able to find studies linking service delivery guidelines and practices with the content of training programs in family planning and reproductive health. Making this link is important for assessing the complementarity of information given to providers in their training (both basic and refresher) and through service delivery guidelines.

3. **Service guidelines and protocols guiding the work of service providers.** Studies of service practices should also include a thorough understanding of the content of service delivery guidelines. These studies should include information on when the guidelines were last updated and how the information was disseminated to service providers, as well as whether the providers have access to the guidelines and if they actually use them to guide service delivery.
4. **Personal preferences and biases among providers and clients.** Studies need to assess the difference between what providers learned during training regarding contraceptive methods and other reproductive health services, what the service delivery guidelines instruct them to do, and their deep-seated preferences to and biases about family planning (for example, provision of family planning to adolescents or unmarried clients, or provision of methods to clients without spousal consent). These personal preferences and biases are often influenced by sociocultural factors or by prevailing medical conditions in the country.
5. **Resources.** Service providers may base their practices on the availability of resources for service provision. For example, the availability of equipment, supplies, contraceptive commodities, and funding for the provision of care are likely to influence the choice made in provision of family planning and reproductive health.

Including these five factors in studies of service practices will provide a more complete picture of service providers and the contexts in which they work. These factors combine to influence the quality of the information and services that clients receive—which is ultimately the important outcome in studies of service practices. Information on the five factors will help identify root causes of service practices that should be eliminated or emphasized. Studying service practices of family planning and reproductive health, including medical barriers, and taking steps to improve policies and practices is a long-term process which should not be rushed. Research is moving away from descriptive studies to more finely tuned studies of practices in individual countries and programs. More studies should assess the impact of improving service practices, as well as the effects on quality and safety of discontinuing specific service delivery practices. This emphasis on impact will ultimately help programs increase clients' access to quality contraceptive- and reproductive health care.

Appendix Table 1. Methods Used to Study Service Practices and Medical Barriers, Sample Research Questions, and the Methods' Strengths and Weaknesses

<i>Method</i>	<i>Sample Research Questions</i>	<i>Strengths and Weaknesses</i>
1. Legal and regulatory analysis	<p>Who is authorized to provide which contraceptive methods?</p> <p>Do import regulations facilitate availability of family planning methods and supplies?</p> <p>Who is eligible to receive family planning services? Are some groups (e.g., adolescents, unmarried women) specifically excluded?</p>	<p>+ Important for securing baseline comparative data on service practices.</p> <p>+ Provides a thorough picture of written laws and regulations pertinent to family planning.</p> <p>- Does not measure provider preference or examine actual service practices.</p>
2. Review of service delivery guidelines	<p>Do guidelines exist?</p> <p>Are they used?</p> <p>Have they been properly disseminated?</p> <p>Do they follow current scientific information on contraceptives?</p> <p>Are the guidelines detailed enough to guide service provision?</p>	<p>+ Provides a picture of the guidelines providers are supposed to follow.</p> <p>+Important for country comparisons of what providers are expected to follow.</p> <p>- Does not measure provider preference or examine actual service practices.</p>

Appendix Table 1. Methods Used to Study Service Practices and Medical Barriers, Sample Research Questions, and the Methods' Strengths and Weaknesses		
<i>Method</i>	<i>Sample Research Questions</i>	<i>Strengths and Weaknesses</i>
3. Provider survey	<p>Which family planning methods and services are offered, in which locations, and by which types of family planning providers?</p> <p>What eligibility criteria and contraindications do providers use to screen for each method?</p> <p>What exams or laboratory tests do providers conduct before providing each method? How many follow-up visits are required? Do providers routinely recommend a rest period from some methods?</p> <p>Do providers know the reasons for their practices (e.g., what to look for in a pelvic exam? Normal ranges for laboratory tests?)</p> <p>Are provider practices in concert with established program, national or international guidelines?</p> <p>How do providers justify practices that may be considered barriers?</p>	<p>+ A versatile method that can be adapted to fit a wide range of research questions.</p> <p>+ Important method for collecting baseline and follow-up data to evaluate success and impact of interventions to change service practices.</p> <p>- If used to collect detailed information, can result in lengthy questionnaires and time-consuming interviews.</p> <p>- Intentionally or unknowingly, providers may not always accurately report their true service practices. Best if coupled with client surveys.</p>

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<i>Method</i>	<i>Sample Research Questions</i>	<i>Strengths and Weaknesses</i>
4. Discussions with providers	Same topics and questions as those listed for provider surveys.	<p>+ Dynamic, interactive setting allows immediate probing on key issues.</p> <p>- Discussion participants may not be representative of the larger population of providers, unless a random sample of providers is drawn.</p> <p>- Can be an effective method for understanding reasons for provider bias and its sources.</p> <p>- Not the most systematic method for assessing service delivery guidelines.</p>
5. Client survey	<p>What types of clients requested specific methods but did not receive them? Why? Were clients told that they could not use a method due to age, parity or other screening criteria?</p> <p>Which exams and laboratory tests were clients told to undergo before using a specific method? How often were they told to return for follow-up visits? Were reasons for tests explained?</p>	<p>+ The only method for assessing clients' views of medical barriers to contraceptive access.</p> <p>+ A useful method for measuring the impact of changing service practices.</p> <p>- Clients cannot always accurately remember details about service practices and are usually unaware of the proper procedures. Best if coupled with provider surveys, or conducted as simulated client studies.</p>

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<i>Method</i>	<i>Sample Research Questions</i>	<i>Strengths and Weaknesses</i>
6. Observation and simulated client study	<p>What screening criteria do providers actually use?</p> <p>What do providers tell clients about how to manage the side effects of various contraceptive methods?</p> <p>Do providers give clients adequate information on the full range of methods offered by the program and in-depth information on the method selected by the client?</p> <p>Do providers favor some methods over others?</p>	<p>+ The most direct method for examining actual service practices of providers.</p> <p>- Providers may deviate from their customary procedures due to the presence of an observer. Such studies should include more than one observation of each service delivery point.</p> <p>- If simulated clients are used as observers, they may not remember all the details of service delivery.</p>
7. Situation analysis	<p>Situation analysis is a combination of methods reviewed above, including surveys of managers, providers and clients and observations of service delivery points. Situation analysis instruments are still in the process of being modified to improve their measurement of service practices.</p>	<p>+ Provides comprehensive picture of service delivery point.</p> <p>- Because situation analysis is comprehensive, doesn't gather much detail about service delivery practices.</p>
8. Operations research	<p>What is the impact of changing one or more service delivery practices?</p>	<p>+ The best method for studying the impact of changing or instituting service practice guidelines.</p> <p>- Usually performed only on a small scale, thus, results cannot necessarily be generalized very widely.</p>

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