

CONSULTATION ON IMPROVING CONTRACEPTIVE CONTINUATION
Partnering to Generate and Apply Knowledge for Better Results

Meeting Proceedings

Washington, D.C.
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Family Health International and the ACQUIRE Project**

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Consultation on Improving Contraceptive Continuation: Meeting Proceedings

Author: Kim Best

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P.O. Box 13950
Research Triangle Park, NC 27709 USA
Telephone: 919-544-7040
Fax: 919-544-7261
e-mail: services@fhi.org
<http://www.fhi.org>

© 2006 by The ACQUIRE Project/EngenderHealth

c/o EngenderHealth
440 Ninth Avenue
New York, NY 10001 USA
Telephone: 212-561-8000
Fax: 212-561-8067
e-mail: info@acquireproject.org
<http://www.acquireproject.org>

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EXECUTIVE SUMMARY

Once a woman has adopted a contraceptive method, she will ideally continue to use it – or switch to and continue using another method – for as long as she wishes to avert pregnancy. Helping women to continue contracepting safely and effectively is desirable both from an ethical and public health perspective. Improving contraceptive continuation rates not only helps women achieve their reproductive health intentions, but it reduces unintended pregnancies, as well as related abortions and maternal mortality and morbidity.

Yet, contraceptive continuation can be tenuous. Many factors can lead a woman to abandon her means of preventing unintended pregnancy. These factors reflect needs and preferences unique to the individual woman; her relationship with her partner, friends, and extended family; her experience with health services; her community, society, and culture; policy and service delivery environment; political, societal, and economic conditions, and characteristics unique to a particular method.

Discontinuation of any contraceptive method by a woman desiring to control her fertility is of concern. However, the circumstances surrounding discontinuation of short-acting hormonal methods deserve special attention. Although these methods are the major way developing world women space births, their discontinuation rates are quite high, often exceeding 50 percent. Thus, improving continuation of short-term hormonal contraceptives has a high potential for programmatic impact, particularly in sub-Saharan Africa.

How best to do so was examined by participants at this “Consultation on Improving Contraceptive Continuation.” Approximately 50 representatives from 15 reproductive health research, service delivery, training, and communication organizations, as well as the U.S. Agency for International Development (USAID), met in Washington, DC, November 29-30, 2005 to:

1. Review evidence on determinants of contraceptive discontinuation and identify knowledge gaps to set research priorities.
2. Identify “best practice” interventions to improve continuation rates, particularly of hormonal methods, and discuss:
(a) challenges to applying best practices and (b) ways to implement those best practices that are ready for scale up or replication in various family planning programs.

CONFERENCE OVERVIEW

The “Consultation on Improving Contraceptive Continuation” was organized by Family Health International’s Contraceptive and Reproductive Health Technologies Research and Utilization (CRTU) Agreement and the ACQUIRE Project, managed by EngenderHealth.

The first day of the meeting featured presentations from both research and program perspectives that focused on how individual, community, and service delivery factors affect contraceptive method continuation. The second day of the meeting featured presentations about private sector, contraceptive security, and field perspective issues.

On both days, participants convened into three small discussion groups to brainstorm how individual and community, provider, and service delivery factors, respectively, affect contraceptive method continuation; their two-fold goal was to identify the most promising practice interventions and articulate research questions. Small group ideas, refined and ultimately shared with the larger group, are reflected in this summary and appear in their entirety in Appendix I. Initial ideas that emerged in the small group preliminary discussions are summarized in Appendices II, III, and IV.

3. Identify opportunities for family planning/reproductive health partners to collaborate on implementing evidence-based practices and to provide input into the future research agenda on improving contraceptive continuation for FHI/CRTU and other USAID Cooperating Agencies' 2006-2007 work plans and beyond.

GENERAL THEMES

Contraceptive continuation versus method-specific continuation

The group agreed that the goal of contraceptive continuation is not to achieve some optimal continuation rate, nor is it about method-specific continuation. Rather, it is to help 100 percent of clients fulfill their individual reproductive intentions by using their chosen method correctly for as long as they want to avert pregnancy, or until they switch to another effective method, or until they no longer need contraceptive protection.

Measuring continuation

Better understanding of contraceptive continuation requires collection of more data – perhaps beyond that provided by the Demographic and Health Surveys (DHS). In particular, population-based data is needed, but its collection is expensive and may be difficult to justify given the many competing reproductive health priorities in the developing world. Another option is to extract more information from the DHS; e.g., asking additional questions in future surveys and mining data from existing ones. Measurement can go beyond actual continuation or discontinuation rates to see whether women are achieving their reproductive health goals. The question of “Are women continuing?” can be replaced with such questions as: “What are individual preferences? Are women achieving their goals?”

Individual factors

- *Continuers versus discontinuers.* Some women continue and others discontinue contraceptive use despite similar contexts and experiences.
- *Returning clients.* Contraceptive users are not a consistent group. In fact, they can be conveniently broken out into four types: 1) new clients who know what they want, 2) new clients who do not know what they want and thus require in-depth counseling, 3) returning clients who are content with their contraceptive method, and 4) returning clients who have concerns and both want and need counseling. Returning clients' concerns are important to address because women's needs change over time, resulting in desire for other contraceptive methods. Triaging returning clients into two categories (those coming for routine re-supply versus those with problems/concerns) and differentiating treatment might lead to better outcomes, including improved continuation. Many programs may not concern themselves with continuation because they are focusing on new rather than returning users.
- *When women discontinue.* Initial follow-up visits probably are a critical time to conduct interventions to promote contraceptive continuation because the immediate discontinuation rate drives final continuation rates. For example, for user-driven methods

like oral contraceptives (OCs) and the injectable depot-medroxyprogesterone acetate (DMPA), the relevant question is whether a woman takes subsequent cycles of pills or returns for and successfully receives subsequent injections.

- *Side and health effects.* Hormonal contraceptive side effects clearly contribute to discontinuation, so better understanding of women's varying reactions to side effects is needed. Women's perceptions of long-term health effects related to hormonal contraceptive use also require further exploration. Appropriate management of returning clients' side effects *beyond menstrual disturbances* and concerns about health effects might improve contraceptive continuation.

Community factors

Documentation of the ways in which community factors affect contraceptive continuation is sparse. It may be useful to ask: What are the community-level factors that impede demand for continuation? Program experimentation on this level should be considered. For example, a community intervention/campaign to raise awareness of discontinuation issues might be conducted. Messaging could focus on helping women meet their reproductive health goals and informing a woman of her contraceptive options if she does not like her current method. Community campaigns could also address health concerns due to myths and rumors about hormonal family planning methods. However, the costs of such interventions need to be identified and evaluated in relation to the interventions' likely impact.

Provider factors

- Good client-provider interaction (CPI) – specifically counseling – serves as a safeguard for informed choice and ensures clients' right to information about available options and about their chosen method (in particular, side effects and correct method use). However, while necessary, good CPI is not sufficient in itself to secure sustained method use. For this reason, multiple strategies targeted at other determinants of continuation are needed.
- There may be some essential components of counseling during initial and follow-up visits in different settings (e.g., clinical, pharmacy, community-based distribution [CBD]) that would affect continuation. Examples of possible key components include explaining side effects and what effects are normal, providing referrals, describing follow-up (giving permission not to like a method and to change it at *any* time), and providing take-home materials.

Service delivery factors

- DHS data suggest that side effects and health concerns play a far greater role in hormonal contraceptive discontinuation than do service delivery factors. However, much anecdotal and programmatic evidence illustrates how access barriers impede hormonal method continuation. Barriers include the requirement of frequent follow-up visits, failure to give clients enough pill supplies, denial of re-injections of contraceptive injectables if a woman returns to the clinic late, requirements for periods of "rest" from pill use, cost, lack of supply sources, and stock-outs.

- Expanding access to hormonal contraception by enhancing distribution via the private sector, demedicalization of its provision, or service integration holds promise for improving method continuation. However, this approach requires strong logistics systems to ensure 1) availability of contraceptive supplies at all levels, 2) strong training and performance improvement, 3) quality of services, 4) and adherence to high standards of care.

OUTCOMES

Many questions about contraceptive method continuation persist, suggesting numerous areas for further investigation. However, participants in small group discussions concluded that further research is particularly warranted to investigate and better understand:

- How to refine the conceptualization and measurement of contraceptive continuation (e.g., by asking more questions in future Demographic Health Surveys (DHS) or mining data from existing surveys).
- How method discontinuers and method continuers differ.
- Whether triaging returning clients into two categories (those coming for routine re-supply versus those with problems/concerns) and differentiating their treatment would improve continuation.
- Whether appropriate management of returning clients' side effects (beyond menstrual disturbances) would improve continuation.
- Whether addressing health concerns would improve continuation.
- Whether support for community-level campaigns that address issues related to contraceptive continuation could have a substantial impact at a reasonable cost.
- What messages/communication channels can affect knowledge, attitudes, and practices on issues that relate to continuation.
- What essential components of counseling during initial and follow-up visits in different settings might affect contraceptive continuation.
- How to structure health services so as to place more emphasis on supporting contraceptive continuation, rather than focusing on new contraceptive users. To be considered are 1) how to explicitly incorporate the goals of contraceptive continuation into service guidelines, performance expectations, and monitoring and 2) how to devise monitoring indicators and mechanisms for recognizing providers who contribute to this goal.
- How continuation rates are affected by factors related to logistics, information, supervisory systems, and turnover.
- What support CBD workers and pharmacists need to facilitate continuation.

(For further elaboration on these points, refer to Appendix I.)

Meeting discussions revealed a continuing high degree of uncertainty about the level of evidence necessary to identify and implement “best practice” interventions to improve continuation rates for hormonal methods. As a result, no “best practices” were identified in final small group presentations; however, several “best,” “good,” or “promising” practices were identified during small group preliminary discussions. (For further elaboration, refer to Appendices II, III, and IV.)

Practices related to *providers* include those to:

- Increase provider attention to the needs and concerns of returning clients.
- Encourage respectful, client-centered client-provider interactions that prepare new clients for contraceptive method side effects.

Practices associated with *access* include those to:

- Ensure access at service delivery points. This includes removal of barriers at service delivery sites (e.g., distributing multiple cycles of OCs and applying the World Health Organization-defined “grace period” for late re-injection clients); ensuring the existence of a logistics and contraceptive procurement system to avoid stock-outs; and establishing financial schemes to remove cost barriers.
- Increase the variety of outlets for contraceptive methods; i.e., demedicalize the distribution of hormonal methods by increasing access through lower-level providers, such as CBD agents or pharmacists. Establish links between alternative providers and the established service delivery structure.
- Integrate services; granting greater access to hormonal methods through various service delivery points may provide clients more opportunities to continually obtain the method of their choice.
- Increase the role of the private sector and ensure that consumers can access and afford a range of products. Establish a complementary division of roles between the public and private sectors.

Practices associated with *community* include those to:

- Address health concerns (e.g., myths and rumors) related to hormonal method use through consistent counseling, community mobilization, and behavior change communication (BCC) mass media messages.
- Involve men. Since men can be a barrier to their partner’s using or continuing use of family planning, positive male involvement can support adoption and continuation.

CONSULTATION ON IMPROVING CONTRACEPTIVE CONTINUATION

Day 1: Tuesday, November 29, 2005

I. Introduction

Why should we care about contraceptive continuation?

Jason Smith, director of research utilization at Family Health International (FHI), opened the meeting with this question. From an ethical perspective, inquiry into this question is a matter of respecting people's wishes to control their fertility and allowing them to contracept safely and effectively when they wish. Attention to the issue is expected to have a public health impact, as well. Improving contraceptive continuation rates reduces unintended pregnancies (and related abortions, as well as maternal mortality and morbidity). Finally, improving contraceptive continuation should have a programmatic impact, since contraception is only effective if it is used consistently and continuously, he said.

Smith made the distinction between method-specific discontinuation and contraceptive discontinuation. Abandoning a particular method and subsequently switching to another is not intrinsically bad. In such a case, it becomes important to simply counsel women on the pros and cons of switching methods. Furthermore, contraceptive discontinuation may not be of concern if a woman no longer wants or needs protection against pregnancy. However, using data from Bangladesh, Smith suggested that factors other than the desire for pregnancy may motivate discontinuation in the majority of cases. Thus, the question of what other factors motivate women to discontinue remains.

Although discontinuation of *any* contraceptive method is of concern if a woman does not adopt another contraceptive method and yet wishes to protect herself against pregnancy, the meeting was convened to particularly focus on discontinuation of short-acting hormonal methods in widespread use in developing countries. These include combined oral contraceptives (OCs), progestin-only contraceptives, combined injectable contraceptives, and progestin-only injectables.

This focus is appropriate for several reasons. First, the most recent Demographic and Health Survey (DHS) data indicate that discontinuation rates for OCs and contraceptive injectables are quite high (often exceeding 50 percent), while those for the intrauterine device are quite low (often below 15 percent). Hormonal methods are also the major spacing methods in developing countries, a high priority for the U.S. Agency for International Development (USAID) research agenda, and their continuation has a high potential for short-term impact, particularly in sub-Saharan Africa.

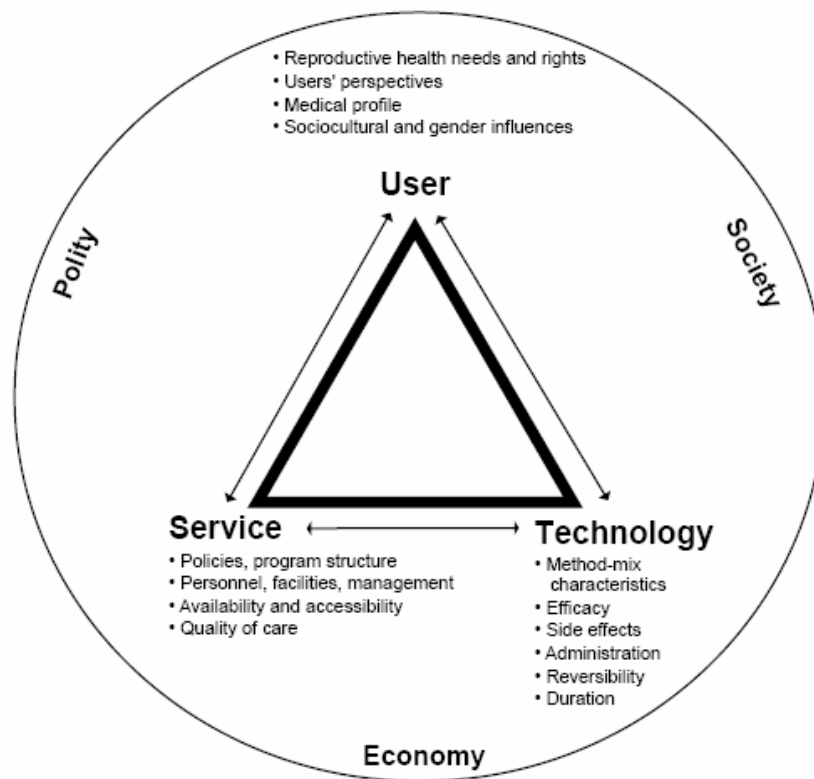
A primary goal of the meeting, Smith noted, was to promote a balanced discussion between the research and service delivery communities since it is critically important for service delivery to be evidence-based and for researchers to acknowledge the perspectives of those involved in service delivery.

In conclusion, Smith defined the meeting objectives as 1) gaining a sense of what “best practice” interventions are ready for scale up or replication and 2) compiling a short list of ideas that have the most potential for future research projects.

* * * * *

To help conceptualize this complex topic, Karen Beattie, technical programs director of the ACQUIRE Project/EngenderHealth, presented a conceptual framework that was developed by the World Health Organization as part of its strategic approach to contraceptive introduction. The framework considered users’ needs and perspectives, available technologies, and the capabilities of the service delivery system (Figure 1).¹ This framework identifies some key issues and places them in a larger context of political, societal, and economic factors. Subsequent presenters addressed four of the most relevant factors related to contraceptive continuation: community, client-provider interactions, service delivery, and technological factors.

Figure 1 Systems framework guiding the strategic approach to contraceptive introduction



¹ Simmons R, Hall P, Diaz J, et al. The strategic approach to contraceptive introduction. *Stud Fam Plann* 1997;28(2):79-94.

II. Community Factors Related to Contraceptive Continuation

Winnie Mwebesa, family planning and reproductive health advisor for Save the Children, noted a scarcity of documentation of the ways in which community factors affect contraceptive continuation.

However, Mwebesa described a four-year project in Mali that was successful in achieving high contraceptive *use*.² The project was implemented by Save the Children and Groupe Pivot/Santé Population (a consortium of local NGOs) between 1998 and 2002 in 658 localities in five of eight administrative regions in the country. The project involved about 200,000 men and women aged 15-24 years and about 2,000 male and female community-based distribution (CBD) workers trained to provide information/education/communication (IEC) and CBD.

The program's strategy was to increase access to a basic package of interventions related to child survival and reproductive health. An intervention, imbedded into a range of programs in order to enhance community acceptance, included improving the quality of those programs; increasing demand for child survival and reproductive health services among individuals, families, and communities by training CBD workers to provide those services; and increasing the capacity of institutions.

Results of the intervention were impressive, Mwebesa said. Contraceptive use among women with children under the age of two years rose from 23 percent to 66 percent. For women who had children under the age of two years but did not want another child within two years, contraceptive use rose from 29 percent to 69 percent.

Factors that might have contributed to these successes, Mwebesa said, included:

Access: CBD facilitated access to contraception for clandestine and rural users and reduced costs to consumers, in part, because women did not have to travel to clinics. It also demedicalized family planning. People could more easily discuss family planning in the community and could find condoms alongside household products in pharmacies and kiosks. The program also democratized family planning, making family planning available to young and married youth. Finally, the program provided flexible payment options: Women could pay for contraceptive methods on credit from CBD workers living in their communities, in installments, or in kind (with food, chickens, etc.).

Demand: CBD workers provided frequent and personalized IEC activities. They conducted follow-up meetings with women, couples, and others who wanted more information about family planning options. Their nongovernmental organization (NGO) staff encouraged the health center to be more active about discussing family planning with patients and providing follow-up on methods women were using. They organized school- and community-based educational activities

² Findings from Mali were drawn from a December, 2002, report by Dr. Lori Leonard of the Bloomberg School of Public Health entitled *Understanding the High Contraceptive Prevalence Rates in the Intervention Zones of NGO Partners of Groupe Pivot/Santé Population (GP/SP)*.

and took advantage of all community events to increase knowledge and uptake of family planning.

Quality: CBD workers provided intensive and personalized follow-up for clients. Not only were they present when a woman was given pills, but they provided follow-up in the first week to make sure the woman understood how to use the method and to see whether side effects occurred. Two days before a woman's pills ran out, a CBD worker would remind her to get more. For women referred to clinics and who received injectable contraceptives, CBD workers tried to make sure women did not forget their follow-up visit. CBD workers focused on the specific needs of different age cohorts, including youth. They also adopted an effective referral system that included a practice of sending women back to their CBD workers for follow-up.

Mwebesa also said that methodology employed by Save the Children has helped increase use of the injectable depot-medroxyprogesterone acetate (DMPA) in Nepal. Called Partnership Defined Quality, the methodology is designed to improve quality and accessibility of services with greater involvement of the community in defining, implementing, and monitoring the quality improvement process.

Note: Mwebesa pointed out that, in the Mali CBD intervention, follow-up occurred shortly after adoption of a contraceptive method because it was anticipated that this is when women would be most likely to discontinue use. (Throughout the course of the meeting, participants tended to agree that initial follow-up visits probably were a critical time to conduct interventions to encourage contraceptive continuation.)

III. Client-Provider Interaction Factors Related to Contraceptive Continuation

Program perspective

Jan Kumar, knowledge-to-practice team leader on the ACQUIRE Project, shared what has been learned about client-provider interactions (CPI) and contraceptive continuation from the literature, and from observations at service sites, program assessments, and input from participants at CPI/informed choice workshops conducted in numerous countries. The title of her presentation, "Good CPI: Absolutely Necessary, but Not Sufficient," reflected the key message from a February 2004 meeting about the relationship between CPI, contraceptive method use, and method continuation. That meeting was sponsored by the Population Council's Frontiers in Reproductive Health Program (FRONTIERS) in collaboration with the Maximizing Access and Quality (MAQ) subcommittee on CPI.

"Good CPI – specifically counseling – is a critical element to continuation," she said, in that it serves as a safeguard for informed choice and ensures clients' right to information about available options and about their chosen method (in particular, side effects and correct method use). Client-provider interaction is also critical in how clients experience service delivery and perceive the quality of care. When clients are not treated well, often they do not return.

However, good CPI is not sufficient in itself to secure sustained method use, since this brief interaction is only one of many factors over the course of months and years that influence how

long women use their family planning method. For this reason, multiple strategies targeted at other determinants of continuation are needed.

Kumar proposed defining “success” as it relates to hormonal method continuation. She framed it in terms of meeting individuals’ reproductive intentions, rather than achieving “optimal” continuation rates. From this perspective, success can be defined as ensuring that hormonal method users use those methods correctly for as long as they want to avert pregnancy, or until they switch to another effective method or do not need contraceptive protection any longer.

Kumar cited several determinants of continued use, arguing that CPI can have an effect on all of them:

- Cultural, family, community factors: myths and rumors, traditional beliefs about health, cultural restrictions on menstruating women’s behavior, pressure to bear more children (particularly sons), degree of partner support
- User-related factors: strength of desire to have or *not* to have children, desired family size, individual autonomy about decision to make family planning choices and to visit a service delivery site, preferences, concerns, tolerance of method characteristics and side effects, and fears about health effects
- Provider-related factors: communication skills, whether they are client-focused and give the information clients need and want, skills to manage side effects
- Method-related factors: effectiveness, requirements for use, inconveniences, side effects, risks
- Policy and service environment: method mix, absence or assurance of contraceptive supplies, transportation, costs

Kumar offered some strategies that providers can employ to strengthen CPI and improve continuation rates:

- Give clients the method and information they want.
- Treat clients with courtesy and respect; ensure confidentiality.
- Listen carefully and respond to what clients need and want. Often, providers “do most of the talking and fail to elicit clients’ preferences and concerns,” Kumar said. It is important to encourage both new and returning clients to ask questions and express any concerns they might have to make sure that their expectations are being met. Although many programs focus on new clients, returning clients should routinely be offered counseling to address any problems they may be experiencing or any changes in their circumstances and needs.
- Involve partners when conveying information and offering counseling. Partners often strongly influence a woman’s decision to use or not to use a method, but partners are rarely involved.
- Be clear about possible side effects, and take clients’ complaints and concerns seriously. Side effects – whether feared, imagined, or experienced – are a major cause of method discontinuation. Unfortunately, providers often are reluctant to discuss side effects because they worry that such discussions will scare clients away. Providers often fail to give information that new clients want about side effects. Moreover, returning clients

experiencing side effects may find their concerns dismissed with providers failing to provide reassurance or options (like ways to medically manage a side effect or switch to another method).

- Acquire or update knowledge, communication skills, and skill in managing side effects. Many providers do not have necessary knowledge and skills to address client concerns. Some may misunderstand the *Medical Eligibility Criteria for Contraceptive Use*. Some do not understand that the goal is simply to ensure, as long as it is needed, continued contraceptive (not just method) coverage. For this reason, they may discourage a woman from switching methods. Many providers inadvertently encourage discontinuation because they erroneously believe that “rest periods” from contraceptive methods are needed for safety. Providers also need to increase their awareness of common rumors and myths in the community as well as traditional concepts of health that may jeopardize continued use of contraception.

Programs can employ additional strategies to strengthen CPI and support continuation, Kumar suggested. These include routinely offering counseling to all returning clients; making services client-centered; seeking client input and feedback on quality of care; requiring and rewarding good CPI (supervision, client feedback, peer review, self-assessment); strengthening outreach and client follow-up to maximize client contact and support; and improving data collection and analysis to better understand discontinuation by method and by clinic, and to inform interventions.

Kumar concluded by noting that multiple strategies – some related to CPI and some related to other determinants – are needed to maximize contraceptive continuation.

Research perspective (1)

While good CPI is important for a number of reasons, there is little evidence from randomized controlled trials (RCTs) that it improves contraceptive method continuation, said FHI scientist Vera Halpern.

Halpern cited a Cochrane review on strategies to improve adherence and acceptability of hormonal methods of contraception. (The review has since been published in the Cochrane Library,³ which contains systematic reviews of RCTs and is considered the best single source of reliable evidence about the effects of health care interventions.)

Halpern cautioned that this Cochrane review had several serious limitations. Most studies had high loss to follow-up, small sample sizes, different types and intensity of experimental interventions, and self-reports of continuation. A meta-analysis was not possible because the studies were so different in both exposures and outcomes. Thus, Halpern said, high-quality RCTs with adequate power and well-designed interventions are warranted to investigate whether and how CPI can improve adherence to hormonal contraception. Meanwhile, she noted, other

³ Halpern V, Grimes DA, Lopez L, Gallo MF. Strategies to improve adherence and acceptability of hormonal methods of contraception. The Cochrane Database of Systematic Reviews 2006, Issue 1. Abstract available at: <http://www.cochrane.org/reviews/en/ab004317.html>.

research approaches (i.e., nonrandomized designs, randomization on the clinic level) may be useful to the evaluation of certain service delivery interventions.

The objective of this particular Cochrane review was to review and analyze all RCTs that have investigated the effect of counseling and other CPI on improving adherence to hormonal contraception. Considered in the review were RCTs that included group motivation, structure, peer or multicomponent counseling, and intensive reminders. Types of outcomes included discontinuation, reasons for discontinuation, missed pills, on-time injections, and pregnancy.

Only six RCTs were identified among some 300 relevant citations in computerized databases. Half of the six trials were conducted almost 20 years ago, and only two were conducted outside the United States (Mexico and Slovenia).

Notably, only the two non-U.S. trials found an effect of CPI on contraceptive continuation, as follows:

The 2001 Mexican study found less discontinuation of DMPA at 6 months and 12 months (as well as less discontinuation due to menstrual side effects) among women in the experimental (CPI) arm of the trial than among women in the control arm. Women in the experimental group received structured, pre-treatment counseling involving an audiovisual presentation. They also received, initially and at follow-up visits, information on DMPA's mode of action and common side effects (including menstrual irregularities). Women in the control group simply received routine pre-treatment information on expected side effects. The study findings suggest that intensive counseling interventions with multiple contacts may be needed to improve continuation.

The 1982 Slovenian study conducted among family planning clients and women undergoing abortion found no difference in overall continuation of contraceptive methods between women in the experimental arm and those in the control arm of the trial. However, discontinuation due to dissatisfaction was less among women in the experimental group. This suggests that enhanced counseling, while having limited effect on contraceptive continuation, may change the reasons why women decide to stop using contraception.

In the Slovenian study, women in the experimental group were motivated by specially trained nurses to use contraception; given information about anatomy, physiology, general family planning, and advantages and disadvantages of available contraceptives; and exposed to audiovisual aides. Women in the control group simply received routine, brief information from a regular physician or nurse.

Research perspective (2)

Research from several developing-world settings indicates that the effects of CPI on contraceptive method continuation are slight in most cases, FHI senior consultant Susan Adamchak reported. This was the conclusion reached at the February 2004 meeting, sponsored by the Population Council's Frontiers Program in collaboration with the MAQ subcommittee on CPI. The goals of that meeting were to review evidence of the effects of improved CPI on adoption, use, switching, and continuation of family planning methods; understand related cost and financing issues; and discuss implications for quality of programs.

In sum, Adamchak said, it would appear that "CPI is necessary but not sufficient [to greatly affect continuation] and certainly does not seem to trump individual factors, such as women's intentions, number of kids they already have, and their age."

Adamchak described two projects that she monitored through FRONTIERS to see whether it was possible to improve quality of care via CPI and, if so, what the effect on contraceptive continuation might be.

In the first phase of a two-phase research project in Peru, providers' use of a balanced counseling strategy and job aids improved quality of care, particularly for intrauterine device (IUD) and hormonal contraceptive users, and improved client knowledge of those methods. In the second phase, providers' use of balanced counseling and job aids resulted in increased contraceptive use by women in this experimental group. However, there was no difference in the proportion of women changing methods or discontinuing method use. In addition, provider compliance was rather low.

In a two-phase research project conducted in Egypt, phase-one enhancement of preparedness in clinics (e.g., more provider training, improved supervision, and improved physical conditions in some clinics) resulted in some significant improvements in provider knowledge and CPI. In the second phase, IUD users in particular improved their general knowledge about the method and its correct use. However, there were no significant changes in user method-switching, attainment of reproductive intentions, current use, or cumulative continuation of the method.

Likewise, results were mixed in a "Smart Patient Coaching" intervention study conducted in Indonesia. Tailored communication occurred more frequently in intervention groups, and the percentage of women in the intervention group discontinuing at eight months was half that of women in the control group. (Side effects and health concerns were the most common reasons for discontinuation.) However, the differences were not significant. The researchers concluded that, while the intervention empowered clients and improved client participation, the effect on short-term continuation was unclear.

Similarly, an "Improving Quality of Care" intervention conducted by the Population Council in the Philippines and Senegal resulted in an overall perception among clients that quality of care was higher at intervention clinics. But while there were "small increases in continuation that one might attribute to improved quality of care, those differences between the intervention and control clinics were small," Adamchak said.

Given the results of these and other studies, participants from the February 2004 meeting generated several research questions: From the clients' viewpoint, what is quality and how does it affect continuation? How should clients' view of quality be addressed to reduce discontinuation? What are some of the dynamics of method switching? What are the early patterns of discontinuation? How do we understand provider roles and CPI in promoting continuation? What incentives improve providers' performance? Finally, what are community perceptions of CPI and quality of care? And how do community perceptions contribute to method acceptance and continuation?

Discussion following this presentation raised several points:

- Clients are not a consistent group. In fact, they can be conveniently broken out into four types: new clients who know what they want, new clients who do not know what they want and thus require in-depth counseling, returning clients who are content with their contraceptive method, and returning clients who have concerns and both want and need counseling. (Jim Shelton, USAID senior medical advisor, later suggested that clients with significant problems who return to the service delivery site arguably need more attention than do new clients.)
- The concerns of returning clients are also important to address because women's needs change over time, resulting in desire for other contraceptive methods.
- Clients also differ in terms of the strength of their desire to prevent pregnancy. Victoria Jennings, director of the Institute for Reproductive Health at Georgetown University, noted that "in a study we did among 10,000 pregnant women in Latin America, we found that many, many women who had not been using a method said that when they became pregnant they did not want to become pregnant, but [not becoming pregnant] was not all that important to them. There is a lot of ambivalence about pregnancy." Karen Forfeit, senior fellow at the Futures Group, pointed out that the DHS has some surveys that address that ambivalence by asking: "If you got pregnant tomorrow, how would you feel about it?" She suggested using methodologies to enable people to deconstruct their answer to this and similar questions.
- While side effects clearly contribute to discontinuation, better understanding of different *reactions* to side effects is needed. Furthermore, a focus on side effects tends to eclipse the role that women's concerns about the long-term health effects of hormonal methods plays in discontinuation. More qualitative research is needed to "capture" women's worries about health effects.
- A discontinuation rate is a useful tool and merits consideration, but it should not be used as an absolute measure. There is no specific rate of discontinuation that is "acceptable." Instead, the goal should be 100 percent continuation on the individual level.

- Support for family planning at the community level and evaluation of whether such support has an effect on contraceptive continuation rates can be measured by surveys of attitudes and knowledge.
- More attention should be given to the role that partner communication plays in discontinuation. Gloria Asare, family planning coordinator/program manager with the Ghana Health Service, noted that “Many women think that men do not approve of family planning. But if you ask men, they don’t have strong opinions.”

Most research on the topic of discontinuation has been clinic-oriented, but the relevance of factors observed to affect discontinuation needs to be considered in the context of other service delivery settings, such as pharmacies.

IV. Service Delivery Factors Related to Contraceptive Continuation

Program perspective

Times have changed in regard to legal and regulatory barriers to the provision of contraception. “When I started working in this field,” said John Pile, senior technical advisor for family planning services and networks, the ACQUIRE Project, EngenderHealth, “the only providers giving oral contraceptive pills were doctors.” But over the past 30 years, the concept of the nonphysician providing oral contraceptives (OCs) has taken hold, due in part to the availability of low-dose pills. Still, pockets of limited access exist. Process barriers include requirements for frequent follow-up visits, improper management of side effects, failure to give clients enough supplies, and requirements for periods of “rest” from pill use. Finally, cost can be an extreme barrier to obtaining oral contraception.

In addition to these process barriers, providers’ and programs’ bias in favor of hormonals can lead to discontinuation, Pile said. When providers have preconceived notions that certain clients should use OCs, some of their clients will end up with a method that does not suit them and that they ultimately discontinue. Also, programs that offer OCs, injectables, and just one or two other methods leave many women with little choice but to use hormonals, whether or not the methods suit them.

Although the DHS does not capture it, lack of supply can be another major barrier to continuation, Pile said. Work by EngenderHealth in Tanzania showed that 25 percent of sites did not have either OCs or injectables in stock. Such stock-outs have been observed during site visits elsewhere in Africa and in Latin America and Asia, as well.

Systems are often in place to maintain a continuous supply of hormonals. These include warehouse and distribution management, commodity forecasting, distribution resource planning, and logistics information technology. However, these systems can be improved. The common breakdown, Pile said, is getting supplies from the regional or district level to the service delivery level, where they are needed.

Supply issues can be addressed at the provider level by giving a woman more than one packet of OCs at a time or by making supplies of OCs more convenient.

Expanding supply sources also can affect continuation. A clear trend related to service delivery is the shift away from public sector provision of contraceptives. As a result, one would expect to see discontinuation rates increase in some settings. But this has not always occurred, because more people have turned to the private sector for contraceptives. For example, in the Dominican Republic, between 1999 and 2002, discontinuation rates for the pill dropped from 60 percent to 52 percent as traditional sources of contraceptive commodities shifted to private sector sources. However, use among unmarried, sexually active women in the Dominican Republic decreased by a half (from 28 percent to 14 percent) as a result of commodity stock-outs in the public sector. This illustrates how a shift away from public sector provision can affect one population and why some age cohorts may be more likely to continue oral contraceptive use than others.

How much discontinuation is due to service delivery factors? Based on first-year contraceptive discontinuation rates in selected countries, it appears that side effects and health concerns play a far greater role in contraceptive discontinuation than do service delivery factors, Pile said. Nevertheless, service delivery factors remain a poorly understood concern. For example, the way the DHS queries women about the reason for discontinuation (e.g., “Why did you quit?”), elicits only one response where multiple factors may be involved. Many women may respond that they discontinued because they got pregnant. Why did they get pregnant? Given the high intrinsic effectiveness of hormonal methods, such women probably became pregnant due to some service delivery factor, not because the method failed, Pile said.

Research perspective

The relative success of two different approaches to increasing continuation rates by improving access was described by FHI senior research associate Dawn Chin-Quee. The first approach – to add service delivery points – was investigated in Uganda. The second approach – to reduce barriers once women entered the service delivery environment – was examined in South Africa and Jamaica.

In Uganda, DMPA was provided by CBD in a study conducted by FHI in collaboration with Save the Children and the Department of Health in Nakasongola. Recognizing that DMPA use was increasing in this rural area and that women there wanted to use this method, researchers trained CBD workers to give injections in their own homes or in clients’ homes. At six months, the DMPA continuation rate for CBD provision was comparable to that for clinic provision. Thus, “we concluded that if we can reach more women in rural areas with CBDs and they do as well as women served by clinics, this is a way to increase contraceptive use while keeping continuation as good as the clinic setting,” Chin-Quee said.

In Eastern Cape, South Africa, researchers sought to improve continuation rates for the injectable contraceptives DMPA and norethisterone enanthate (NET-EN) by removing a barrier to re-injection. Although the World Health Organization (WHO) recommends a grace period of up to two weeks for re-injection, women may be denied re-injection if they return to the clinic late. In this cross-sectional study, researchers found that a “sizeable” number of women returned for re-injection late, but within the grace period. Yet, as many as 36 percent of women presenting during the grace period were denied re-injection, often because providers did not know about the

WHO grace period recommendation or were scared that women were pregnant. In addition, a high proportion of women returning to the clinic late were not given a take-home method of contraception. Researchers have since planned a study that would randomize clinics to an intervention in which providers are trained to give key counseling points and manage late clients.

In Jamaica, the effect on continuation of providing at the first clinic visit single versus multiple cycles of OCs to new users was explored. This study involved 20 matched clinics. Participants at half of the clinics received one cycle at their initial visit and three cycles at a re-supply visit. Participants at the other clinics received four cycles at their initial visit. (Both types of participants received counseling, although the women who received one cycle initially and three cycles later had a second opportunity [at the re-supply visit] to get counseling that the other women did not.) The study found that continuation rates for single versus multiple cycles of OCs at four months were the same. Given that provision of multiple cycles would be convenient and reduce clinic congestion, the researchers concluded that this approach would be preferable. Of note, WHO, USAID, and the International Planned Parenthood Federation (IPPF) all recommend distribution of multiple cycles of pills to new users.

V. Technological Factors: Current Developments and Future Expectations

Many reversible contraceptive methods – both old and new – exist, and innovative delivery/reminder/re-supply mechanisms have been devised to encourage continued use of these methods.

Blanketing a region like sub-Saharan Africa with these new technologies would give women there more options for adopting and sustaining contraceptive use. But formidable barriers exist, said FHI senior epidemiologist David Hubacher. The primary barrier is cost. In short, he said, high-volume use of new technologies – such as high-priced implants – in such a setting is “completely unsustainable” and, without lower costs, these new technologies will never reach their full potential.

Can this cost challenge be overcome? Hubacher noted that costs generally decline over time and low-cost generic (“knock-off”) versions of various methods may become available. For example, FHI is now gathering information on a two-rod implant being made in China; it reportedly costs a fifth of what current implants cost.

In the short term, the potential for further breakthroughs in contraceptive technology is limited. Given the purpose of this meeting (improving continuation rates) and because the staple technologies in a setting like sub-Saharan Africa are OCs and injectables, the focus should be on improving access, systems, and counseling for these methods.

Discussion following these meeting sessions raised the following comments:

- Increasing continuation rates for methods requiring active use, but allowing for passive discontinuation (e.g., OCs, condoms, vaginal products, injectables) will be difficult compared to increasing rates for methods allowing for passive use, but requiring active discontinuation (e.g., IUDs). In Mexico, for example, contraceptive prevalence and

continuation rates have improved as women have begun switching from hormonal contraception to IUDs.

- Discontinuation is an ambiguous concept. For example, a woman who has temporarily stopped using OCs may not consider this (or report it) as having discontinued the method.

To conclude the morning's session, Karen Beattie shared some anecdotal information illustrating how systems-level dysfunction can contribute to discontinuation.

In Uganda, she said, a ministry district store that was stocked out of contraceptive commodities simply discarded order forms from local clinics requesting those commodities without informing the clinics that the items were unavailable. "As a result, the store's records subsequently indicated that the clinics had not requested commodities, while the clinics knew that they had, but none had appeared and they had no explanation as to why," Beattie said. "Without product, clinics cannot support continued use of a method."

In the last couple of years, the Reproductive and Child Health Unit (RCHU) of the Ministry of Health in Tanzania has developed eight two-week training modules to provide in-service training. After successful completion of the modules, providers are certified. Under Health Sector Reform, the central level of government (the RCHU) has the responsibility for developing standards, guidelines, and training materials, while the district level has to provide funding for training. Under basket-funding rules, the districts are only allowed to pay for one-week courses. As a result, providers are not being certified and their ability to provide the most up-to-date information and service is being compromised. This is a problem because addressing misunderstandings and providing new information is a key issue in addressing discontinuation, Beattie said.

In Bangladesh, there are high discontinuation rates, and family planning clients are "switching all over the place . . . including from Norplant to injectables and vice versa," Beattie said. "The rationale for moving clients from a long-acting progestin to a shorter-term progestin is unclear, especially if side effects are the concern. Meanwhile, there is a lot of attention to new users and not much paid to the needs of continuing users."

VI. Moderated Discussion of Morning Presentations

The afternoon session of the meeting commenced with a moderated discussion of some issues raised in the morning presentations.

How to measure continuation

Shelton of USAID raised the question of whether continuation should be measured in a more standard way and, if so, how that could be done. Roberto Rivera, director of the office of international research ethics for FHI, noted that much of the data for determining rates come from clinical trials, although the trials were not designed for that purpose. Karen Foreit, senior fellow at the Futures Group, said that one of the standard indicators is couple-years of protection, “but that cannot get at continuation. If we are interested in continuation, we need to get data, but does the cost of collecting continuation data beyond the DHS calendar method (used every five years) justify the benefits of what we would have learned? Also, we need population-based data collection instead of program service statistics because people move around (users of pills and injectables frequently change their supply source), and collecting population-based data is expensive.”

How to conceptualize continuation

- Foreit pointed out that one must go beyond actual continuation or discontinuation rates to see whether women are achieving their reproductive health goals. In fact, based on discontinuation rates from 19 countries (summarized in Appendix I of the literature review prepared for the meeting), she said, “there is remarkably little variation across many countries. Brazil has near replacement level fertility; it’s heavily dominated by hormonals and sterilization. But the discontinuation rate is as high as some other countries (like Guatemala) that have much lower prevalence.” For this reason, one should replace the question of “Are women continuing?” with such questions as: “What are individual preferences? Are women achieving their goals?” Continuation is not important in and of itself, Foreit said. Rather, it is a stage that ensures freedom of choice.
- Not all discontinuation is equal since some methods are easier to discontinue than others. Françoise Armand, director of social marketing and pharmaceutical partnerships, PSP-*One*, suggested that interventions to encourage continuation might take this into account. For example, if a woman needs a provider’s help to discontinue a method, efforts to promote continuation should focus on the provider. On the other hand, if a provider is not required to discontinue a method, efforts to encourage contraceptive use should focus on the client.

When to intervene to promote continuation

Foreit noted that “we must look at when women discontinue. The *immediate* discontinuation rate is the most important thing that drives final continuation rates. That’s where you have the big impact, according to early clinical work.” Thus, for user-driven methods like OCs and DMPA, the relevant question is whether a woman takes the second cycle of pills or returns for her second injection.

Note: During this meeting, discussion of opportunities for interventions to reduce DMPA discontinuation focused on initial follow-up. This is because U.S. data suggest that DMPA discontinuation often occurs between the first and second injections. However, this evidence may not be generalizable beyond the U.S. Furthermore, a common cause of DMPA discontinuation, amenorrhea, does not typically occur until approximately nine months after the initial injection. Thus, meeting organizers suggest that programs support interventions that can address DMPA discontinuation well beyond initial follow-up.

The role of the private sector

Armand pointed out the advantages of a gradual shift away from public sector to the private sector availability of contraceptives. It is in the interest of pharmaceutical companies to promote their products and to encourage providers to write prescriptions. “In Western countries, things are working because drug companies pay close attention to product continuation,” she said.

The role of community factors

Just as community factors (such as attitudes and beliefs) can affect initial demand for contraception, they may also affect contraceptive continuation. It may be useful to ask: What are the community-level factors that impede continuation?

The role of service delivery factors

Armand emphasized that inadequacies at the service delivery level can greatly discourage or prevent women from continuing contraceptive use. “How much choice do women really have?” she asked. “I just came back from Nigeria. If women want a method, they may not be able to get it. If they are lucky, they will get the injectable, but there is no counseling to speak of. These women do not have proper service. In such a case, they are justified in not continuing [contraceptive use].”

Similarly, Ilze Melngalis, senior-technical advisor, marketing and promotion, the ACQUIRE Project, had earlier noted that Kenyan women participating in focus group discussions reported contraceptive-related discomfort and dissatisfaction with the hormonal methods they were using, beyond what would be expected. The women also reported that clinics sometimes did not have their preferred method. This forced them to switch methods, which likely adversely affected the quality of their experiences with contraception due to increased or prolonged side effects.

CONSULTATION ON IMPROVING CONTRACEPTIVE CONTINUATION

Day 2: Wednesday, November 30, 2005

The second day of the meeting featured presentations about the private sector, contraceptive security, and a field perspective.

I. What Can the Private Sector Do to Ensure Adequate Access to Hormonal Methods?

Demand for contraceptive methods is growing in the developing world. In many developing countries, health reform is exploring new ways of financing and delivering health services, and out-of-pocket, private sector expenditures on health products and services are already quite high. Some countries, facing a chronic lack of resources, are trying to move towards targeting the poor while creating incentives for those who can pay to do so. Many consumers already get their methods in the private sector due to convenience, perceived higher quality, lack of stock-outs, and often more convenient access. Some studies show that youth prefer to obtain contraceptive methods in an anonymous manner. These are just a few factors contributing to increasing recognition of the private sector's important role as a provider of hormonal contraception, said Maggie Farrell, service delivery improvement/USAID.

Fortunately, the reproductive health resource gap in the developing world is being filled to a degree by a private sector that includes pharmacies, private providers, clinics, networks, franchises, and hospitals.

Out-of-pocket private sector spending is already very high in many developing-country settings, and – surprisingly – is not limited to higher-wealth quintiles. “Over time, commercial sources for pills have become increasingly important even among lower-wealth quintiles,” Farrell said. “This also has been true for commercial sources of pills in the Dominican Republic, with lower-wealth quintiles increasing their commercial use over time. In Egypt, OC users are more likely to pay for pills than obtain them free.”

That said, there is very limited evidence that this heightened role for the private sector is – or can – increase contraceptive continuation. Available data are mixed, suggesting the need for further research.

Meanwhile, Farrell suggested various approaches that might be adopted to maximize the private sector's potential effect on contraceptive continuation, as follows:

- Get more data on quality of services in the private sector.
- Improve quality of private sector provision of contraceptives. Various quality issues in the pharmacy setting, for example, might be addressed by providing clients with informational leaflets and labels and giving pharmacists training during detailing visits. As in the public sector, training, performance improvement, quality systems, and adherence to standards of care are all potentially key to ensuring client satisfaction and mitigating discontinuation.

Currently, PSP-*One* is working with private providers with the goal of improving access to quality service in the private sector. This will ensure quality provision of pills and injectables, Farrell said, and “hopefully will lead to better continuation rates of these methods.” In a forthcoming study, PSP-*One* will be looking specifically at the issue of discontinuation in regard to private providers and quality.

- Address access. Private sector services may be more accessible and have more convenient hours than do public sector services. When there are no supplies in the public sector due to stock-outs, the private sector can provide access. To ensure that private sector companies enter and continue in markets, there must be sufficient demand and policies that do not crowd out products. And to ensure maximum access, products have to be priced so consumers can afford them. The total market approach looks at subsidized and unsubsidized products and tries to ensure the right mix. Segmenting the market ensures that all sources providing the methods are clear about who they are serving. The USAID contraceptive security team now pays particular attention to this total market approach, Farrell said.
- Create enabling environments for the private sector to enter and grow markets.
- Ensure that there is a range of products that consumers can access and afford.

Commenting on this presentation, meeting participants expressed skepticism about the feasibility and usefulness of additional training of pharmacists. Hubacher of FHI wondered whether pharmacists would be willing to disrupt their daily routines to get training, and what incentives might be offered “for them to drop their business to do this.” Armand noted that “training is useful, but is not enough. It’s hard to ensure that pharmacists will come and there is a lot of turnover among pharmacists.” PSP-*One* is experimenting with detailing: providing more frequent, shorter visits, and determining what pharmacists might need to know. Encouraging pharmacists to provide counseling has not proved to be effective, Armand said, because pharmacists “do it for awhile then stop because they are too busy.”

Foreit described the challenges that Social Marketing for Change (SOMARC) faced in a project in Mexico to promote low-cost pills through pharmacies. Partners in the project included Schering and CONAPO (National Population Council). CONAPO wanted pharmacists to provide counseling and specified that they should use a screening list that included asking about more than a dozen health conditions. SOMARC tried to simplify the list to a few key questions (i.e., “Have you used pills before? If yes, did you have any problems? If no, do you have any chronic health problems?”), arguing from experience that pharmacists would not apply the longer form. CONAPO refused to change the screening procedure and refused to authorize radio promotion of the program (presumably because pharmacists would not be providing “quality” services). “So the project fell apart because policy-makers could not be made to think about how providers actually behave,” Foreit said.

II. Contraceptive Security and Discontinuation: An Unfinished Research Agenda?

Tanvi Pandit, contraceptive security advisor for USAID, defined contraceptive security as the condition where every woman and man is able to choose, obtain, and use quality contraceptives, including condoms, whenever she or he wants. The contraceptive security framework, she said, is organized by seven “Cs”: Clients who are focus of the framework; Context (economic, social, political, and religious concerns within a country); Commitment (by governments, donors, and other stakeholders); Capital (all sources of financing; that is, household, government, donor, as well as third party); Capacity (to forecast, procure, distribute, monitor, and evaluate); Coordination (involving government, donors, and the private sector to ensure best allocation of resources and monitoring of the supply chain); and finally, Contraceptives (ensuring product availability).

The challenge is to understand the clear relationship between contraceptive security and contraceptive continuation. While there is a lot of anecdotal evidence suggesting that contraceptive availability is related to continuation, Pandit said she was unfamiliar with research and evidence showing a clear connection.

Based on DHS data, access and cost – two areas related to contraceptive security – seem to play only a small role in discontinuation. However, Pandit pointed out that discontinuation data from these surveys are mainly available for relatively high-income countries with relatively high contraceptive prevalence rates (CPRs). These countries are likely to have better supply chains and fewer issues with contraceptive security compared to many countries in sub-Saharan Africa. For example, if you look at a relatively poor country like Zimbabwe, Pandit said, issues of access and cost play a larger role: “It would be interesting to compare the supply chain in Zimbabwe, with other, richer countries where discontinuation data are available. In lower-CPR countries where supply chains are relatively poor and average income is relatively less than other countries, would we see a stronger relationship between contraceptive security and discontinuation?”

To illustrate this dynamic, Pandit compared two states in India: Bihar, which is extremely poor, and Madhya Pradesh, which has somewhat better health and economic indicators. Overall, she said, access, availability, and cost appear to play a small role in discontinuation in both settings. However, in Bihar, cost appears to play a greater role in discontinuation when compared to Madhya Pradesh and the national average. Additionally, when one breaks the data down by urban/rural settings, higher rates of discontinuation related to access, availability, and cost were reported for rural areas.

In summary, Pandit reiterated that national-level data are largely available for countries with higher CPR and better supply chains. Then, she posed the following questions:

- Is contraceptive security and discontinuation an unfinished research agenda?
- Would we see similar relationships between contraceptive security and discontinuation for poorer African countries as we see in poorer Indian states such as Bihar?
- What is the relationship between contraceptive security and discontinuation for lower-income countries with poor supply chains?

- What do we know about lower-CPR countries?
- What do the data show for lower-income quintiles?
- To what extent does contraceptive security play a role in discontinuation under these different conditions and settings?

Commenting on this presentation, Foreit suggested that adding questions to the DHS might yield more objective information at fairly low cost. “For example, a user could be asked if, in last year, she had gone to her contraceptive source and could not find her method there. If you do that, you get high reports of failure to find method. You can then ask, ‘What did you do?’ ”

Joan Robertson of the USAID contraceptive security team said that evidence from Rwanda suggests that cost and access are very much related. In that country, in 2002, the existence of fees for service in the public sector meant that women had to pay for contraceptives and USAID found that 80 percent to 86 percent of contraceptive acceptors were in the top quintile of wealth. Such acceptors “got methods because they were paying for them,” she said.

It was noted that countries’ ability to procure quality products on a timely basis is critical to contraceptive security. Otherwise, stock-outs might result. Stock-outs may force women to switch methods, leading to general dissatisfaction with family planning, was raised. Also, stock-outs may lead women to erroneously conclude that the government has abandoned a method because of health concerns.

III. A Field Perspective from Ghana

A study conducted from 1996 to 2001 by the Navrongo Health Research Centre, a field station of the Ministry of Health (MOH) in the Upper East Region of Ghana, sheds light on the role of health volunteers and community health officers in increasing contraceptive continuation rates, said Gloria Asare, family planning coordinator/program manager with the Ghana Health Service (GHS).

The study⁴ compared the following four means of delivering family planning services: 1) *zurugelu* health volunteers who could only refer women to relatively inaccessible sub-district clinics, but were expected to increase continuation by helping, as trusted community members, to decrease social costs; 2) community health officers (CHO) who relocated to villages, delivered contraceptives to clients’ doorsteps or convenient community locations, and were expected to increase continuation by managing psychological and perceived health costs or side effects; 3) volunteers and CHOs combined; and 4) normal clinic-based services provided through the MOH in a comparison area.

⁴ Williams JE, Jackson EF, Akumah I, et al. The determinants of contraceptive use-dynamics in Kassena-Nankana district of Northern Ghana. Annual conference of the Population Association of America, Minneapolis, Minnesota, May 1-3, 2003.

Analysis of continuation of modern method use found that:

- Initially, women served by CHOs had the highest contraceptive continuation, with rates as high as 62 percent in 1998. They were 3.8 times more likely to continue relative to women in the comparison group. Continuation rates later fell, then rose again, to about 53 percent in 2001.
- Continuation rates for women served by health volunteers rose from 43 percent in 1996 to 61 percent in 2001.
- Women exposed to a combination of volunteers and CHOs were 2.6 times more likely to continue relative to women in the comparison group.
- The proportion of women who continued to use a modern method was lowest in the comparison area. Continuation initially increased from 29 percent to 49 percent, but then declined to about 25 percent.
- Contraceptive continuation among educated women in the three experimental areas was significantly higher than that of uneducated women in the comparison area.
- New or resumed use of DMPA was highest in areas with a CHO.

Of note, despite a robust method mix in Ghana, where the CPR is 19 percent, DMPA is a very popular choice. (Based on DHS data, of the 54 percent of women who intend to use contraception, injectables [particularly DMPA] are their first choice, with OCs coming in second.)

Based on the findings from the “Navrongo Experiment,” the Ghana MOH has adopted the use of CHOs in rural communities to deliver health care services with community participation. This initiative is called the Community Based Health Planning and Services (CHPS) program.

The study also found that – regardless of manner of service delivery – contraceptive continuation rates were highest among IUD users, followed by DMPA users and pill users. Asare said that, in collaboration with the Population Council and the ACQUIRE Project, “we are experimenting with CHOs (with midwifery skills) inserting IUDs.”

The MOH/GHS, she added, is beginning a project to train public sector pharmacists to provide family planning services so women can access them when public sector sites are closed, as is done by their counterparts in the private sector.

IV. Conclusion

At the meeting's conclusion, Jason Smith of FHI summed up key themes that had emerged, beginning with the general consensus that the aim of improving contraceptive continuation was to help people reach their reproductive health goals.

However, meeting discussions also revealed a continuing “high degree of uncertainty about what we know,” he said, raising the additional question of “What level of evidence is enough for us to move things into programs?” Smith suggested that research on the topic could continue indefinitely and at substantial cost without producing definitive answers. While it may be best to move ahead in some cases by simply using the best available research in a strategic manner, he said, “we did get some convergence on places where we are stuck” and participants now have a “sense of the problems worthy of investigation.”

Smith warned against the pitfalls of poorly conceptualizing the challenges of contraceptive continuation. Poor conceptualization results in a cascade of problems (i.e., poor measurement, poor data sources, flawed program solutions, and inappropriate indicators), all of which combine to perpetuate the suboptimal health condition in question. Many of the issues raised during the workshop (lack of data, questions about measurement, conflicting studies, etc.) are symptomatic of flawed underlying epidemiology; better conceptualization may be needed for major advancement in the field of contraceptive continuation to occur.

The role of client-provider interactions in improving contraceptive continuation was recognized as important. But, given a general consensus that CPI was necessary but not sufficient to improve continuation, a successful outcome of the meeting was the exploration of other critical, driving forces such as access, cost, the private sector, CBD models, the policy environment, and product procurement.

In conclusion, Smith promised that a report on action points would be forthcoming and that “we will do our best to do joint projects to advance programs funded under the CRTU. Being able to coordinate with USAID and other cooperating agencies makes it possible to rationally assign who best can look at these things and will reduce duplication of effort.”

Final, informal meeting discussions generated the following questions:

- While anecdotal reports indicate that cost and stock-outs influence contraceptive continuation, the DHS does not support this. Do we want to investigate this?
- If we accept the new definition of continuation (i.e., ensuring that hormonal method users use those methods correctly for as long as they want to avert pregnancy, or until they switch to another effective method or do not need contraceptive protection any longer), how do we measure it: The HARI Index (Helping Individuals Achieve their Reproductive Intentions) created by Anrudh Jain and Judith Bruce provides insight on how to measure continuation by evaluating programmatic success based upon the reproductive intentions of individuals. This index can serve as a tool for identifying measurable dimensions of continuation which impact programmatic decision-making.

- What level of evidence do we find acceptable? If there is limited evidence that something works, is it more ethical to 1) proceed on the basis of the best information available or 2) do nothing until a definitive answer is found?

Appendix I: Synopses of Small Group Discussions

Group 1 addressed the question of “how individual and community factors affect continuation rates.” It determined that:

- Population-based studies are needed to address the different modalities of accessing re-supplies of oral contraceptives and depot-medroxyprogesterone acetate (DMPA), respectively. But population-based data collection is costly. Is it worth it?
- Working more with the Demographic Health Surveys (DHS) – asking additional questions in future surveys and mining data from existing surveys – can yield important information. For example, questions for future surveys might be:
 - For current users – In the last year of use, have you gone for your brand/type of contraceptive method (to an outlet/clinic, etc.) and not found it? What did you do? When you got this method, was it the method you wanted? In the next 12 months, would you prefer continuing the method you are using, would you prefer using another method (which one?), or do you intend to stop use?
 - For women not currently using – Did you go for a contraceptive method and not get anything? Why?

One way that data from some past DHS surveys could be mined to help researchers better understand oral contraceptive continuation would be to examine questions for self-identified pill users, such as: Can you show me your pill pack? Did you take a pill today? Did you take a pill yesterday? If not, why not?

- Qualitative research is needed to better understand the difference between method discontinuers and method continuers. Research on continuers should be conducted in parallel with research on discontinuers. Some questions to ask are:
 - Why do women really discontinue?
 - Why do some women continue and others discontinue despite similar context and experiences?
 - What message/channels can affect knowledge, attitudes, and practices on issues that relate to continuation, and what interventions can positively affect these issues?
- Program experimentation should be considered. Why not do an intervention/campaign to raise discontinuation issues at the community level? The messaging needs to focus on helping women meet their reproductive health goals and letting them know that if they do not like their current method, there are other options. The costs of such programmatic interventions need to be identified and evaluated in relation to the interventions’ impact.

Group 2 addressed the question of “how providers affect continuation rates” and determined that the following questions remain unanswered:

- Does triage of returning clients into two categories (those coming for routine re-supply versus those with problems/concerns) and differentiating treatment lead to better outcomes, including improved continuation?
- Does appropriate management of returning clients’ health effects and/or side effects beyond menstrual disturbances improve contraceptive continuation?
- What are the essential components of counseling during initial and follow-up visits in different settings (e.g., clinical, pharmacy, community-based distribution [CBD]) that *might* affect continuation? For example, explaining side effects and which ones are normal, providing referrals, describing follow-up (giving permission not to like a method and to change it at *any* time), and providing take-home materials.

Group 3 addressed the question of “how the service delivery environment affects access and continuation rates.” Group discussion generated the following priority research questions:

- What support do CBD/pharmacists need to facilitate high continuation? To be considered are logistics, information, supervision system, and turnover, especially in rural areas.
- Should re-engineered logistics systems be evaluated to see how a reduction in stock-outs improves continuation rates?
- As health concerns are frequently based upon misconceptions and myths about a method, how can counseling messages or community campaigns aimed at correcting these myths affect continuation?

This group identified the integration of service delivery (antiretroviral therapy, maternal/ child health, etc.) as a “promising” practice that may increase method continuation.

Elaboration of these points can be found in Appendices II, III, and IV, where small group preliminary discussions are summarized.

Appendix II: Small Group I Preliminary Discussions

“How do individual and community factors affect continuation rates?”

Key themes discussed and questions raised by this group follow.

- Does service delivery point switching artificially inflate discontinuation rates?
- It would be helpful to know not only one-year discontinuation rates, but also the rates for discontinuation in the first 3-6 months. With this information, appropriate interventions can be developed to address discontinuation during early months of use.
- What do we know about *first*-time users’ discontinuation rates versus second- or third-time users’ discontinuation rates?
- Are patterns of discontinuation rates for places with similar rates the same? For example, both Brazil and Bangladesh have high discontinuation rates. Are women there discontinuing for the same reasons?
- When working in a context with a low contraceptive prevalence rate (CPR), ever-use of a method is important. For those places with higher CPR, closer attention must be paid to those women who are returning for their methods.
- It may be important to focus some interventions on those women who have an unintended pregnancy due to discontinuation rather than those who got pregnant from method failure.
- Access is important. Perhaps an intervention could be developed when services are available on market day. This would allow those women coming to the market from rural settings to satisfy their contraceptive needs on the same day they are already coming to town.
- Interventions that aim to improve continuation rates must involve men.
- Some larger contextual factors also play a role. Female employment is a motivation to continue contraceptive use since it provides women with economic autonomy for decision-making and personal money.
- Are CBDs the only networks for normative change? Can we use women’s groups or other networks for action beyond adoption to encourage continuation of methods?
- How helpful is research in one context when countries, even communities, are so different?
 - One discussion was to develop tools/questions that can be used by programs (e.g., rapid assessment) for a variety of contexts. This may

allow a better understanding of the issue and thus development of appropriate intervention.

- A suggested tool was to create a questionnaire allowing a program to go into cachement areas and determine whether communities and clients have reached their reproductive health objectives (similar to CARE's Participation and Learning for Action).
 - Another idea was to create a tool to help managers use data more effectively by helping them collect/monitor indicators where they will have a better handle on how many women under their care are discontinuing their contraceptive methods.
- If a program is held responsible for new users, its managers will not care about continuation rates. Funding sources need to reward programs and providers for changes in practice. We see this improved quality of service in the private sector because they want their clients to come back.
 - How would the information of women's reproductive health intentions actually benefit programs?
 - More effort is needed in community education and less pressure should be put on the one short interaction with the provider. We must not rely so much on the higher level health care providers but more on community members and paramedical professionals. We need to determine what the most important/powerful communication channels within a community are so that we can leverage these channels to disseminate information. One strategy is to involve the community/media/religious leaders/etc. and get them to become consumers of family planning.

Appendix III: Small Group II Preliminary Discussions: “How do providers affect continuation rates?”

Key themes discussed and questions raised by this group follow.

What do we think are best (or, at least, good) practices?

This group wrestled with the question of whether it was satisfied with the available level of evidence and, if not, what level of evidence would be satisfactory. However, the following were suggested as *possible* examples of good practices:

- Give clients information about specifics, mode of action, side effects, and problem management of all methods during counseling at first visit. But do clients really want to know more about methods?
- Facilitate client-provider communication. Giving basic information is a good practice, but should you go beyond that to invite discussion and provide reassurance?
- Provide anticipatory guidance. Telling people what to expect so as to reduce concerns seems to be a good practice, but providers often say they do not do so because they do not want to scare clients.
- Give your client the contraceptive method that she wants. Evidence shows that, if a woman gets the method of her choice, she is more likely to continue. But what if the woman wants the provider to make the decision? Do all women really want to get involved in the decision-making? If so, how do you help a woman make the best decision? Assuming that there is a good method for each woman, how do you determine what that method is? Providers often deny a method without justification. Why is that? Does it have to do with power relationships, lack of supplies, being overburdened, and/or having scarce time? Would it help to have providers focus on the consequences (i.e., unintended pregnancy) of not giving women the method of their choice?
- Use pregnancy checklists in CBD contexts.
- Improve the contraceptive method mix. But does this really improve continuation? The evidence is uncertain.
- Increase the variety of outlets for methods. Expand the provider network by enlarging the definition of “providers” and establishing links between alternative providers and the established service delivery structure. Again, the evidence that this improves continuation is uncertain.
- Use job aids. Evidence of this practice’s usefulness in improving continuation is only modest.

- Better manage side effects. But do we really know that counseling on menstrual disturbances decreases menstrual-related discontinuation? Studies are mixed.

How can provider practices be changed to improve continuation?

- Because a bias toward hormonal methods contributes to discontinuation, possibly change providers' focus towards promoting nonhormonal methods. This might be achieved by changing incentives for providers to promote nonhormonal methods (i.e., pointing out that this practice will ultimately reduce their workload).
- Pay more attention to counseling of returning patients. Women may not be questioned about their satisfaction with a method after they have been using it for some time, but they should be given a second chance to make an informed choice. If one accepts this assumption, what is good practice for a follow-up visit? How do you confirm that a woman is happy with her contraceptive method? If you determine that she wants to change, what is the process that supports use of another method? If she does not want to change, what counseling can support her continuation of the method? The bottom line is that a returning client should be encouraged to use *any* method that she chooses, not necessarily the same method.
 - If the goal is to promote continuation of *any* method, what incentives are available to promote referrals to other appropriate providers, such as pharmacists?
 - The ACQUIRE Project, EngenderHealth, is completing a curriculum on family planning counseling that addresses returning clients or clients experiencing challenges in using a particular method.
 - The World Health Organization (WHO) recommends a decision-making tool (flip chart) for the counseling of each returning client that entails: 1) identifying if the client is satisfied, 2) having providers ask if the client's reproductive health goals or her health status have changed, 3) defining if there is a need for decision-making to consider a change in methods, and 4) problem-solving to better manage side effects. This evaluation should be done at follow-up visits, but each method has a criterion for when to come back.
- Incorporate goals of contraceptive continuation into service guidelines, performance expectations and monitoring, and devise monitoring indicators and mechanisms for recognizing providers who contribute to this goal. Incentives are a red flag, as they can compromise informed choice. We don't want to promote paying providers monetary incentives to encourage clients to continue using contraception. This would create a provider bias for a particular outcome based on a profit motive, and could compromise the client's interests. The point is to help clients get what they need to achieve their reproductive health goals, not to reinforce a provider-centered system.

What additional research is needed?

- If the good/best practices outlined above are sound, what incentives (including support systems) exist to help providers apply them? What kind of support is needed to achieve this?
- Does better addressing needs of returning clients (giving them differentiated treatment) actually improve continuation? If the four steps (referenced above) recommended by WHO-for returning clients were followed, would it make a difference for the continuation of an existing method, adoption of an alternative method, or decision to stop contraception? Should you first do some brief screening to triage clients into satisfied ones (whose reproductive health goals and health situation have not changed) and those who need more support and renewed decision-making? How much time should you spend on screening and subsequent counseling of women who need a method change?
- Does appropriate management of side effects improve contraceptive continuation? The literature focuses on menstrual disturbances, but do we really know that counseling on menstrual disturbances decreases menstrual-related discontinuation? What is the effect of other side effects on discontinuation?
- How might alternative providers' handling of subsequent visits for returning clients affect continuation? How do we research handling of returning clients in all realms of service delivery? If CBD workers receive referrals, will they be capable of providing the woman's method of choice? What is impact of poor-quality products distributed through private-sector venues?
- What happens in initial versus follow-up visits? Does provision of family planning services in follow-up visits in various settings (supply sources) affect continuation? If so, how and why?
- What are the characteristics/experiences of continuers and discontinuers?
- What do providers do to support continuation, depending upon various individual characteristics of clients?

Appendix IV: Small Group III Preliminary Discussions

“How does the service delivery environment affect access and continuation rates?”

The “service delivery” group discussed and debated themes consisting of types of access (access to outlets and access to services), policy environment, and logistics and procurement. Though DHS data may not adequately capture the impact access has on continuation, much anecdotal and programmatic evidence exists that illustrates how access barriers, such as stock-outs, are in fact a barrier to continuation. Maximizing access within the service delivery environment was viewed as an absolutely necessary component to increasing continuation, but it was agreed that it was not the only factor impacting continuation. For the purposes of ensuring a focused dialogue, *access and quality* served as the umbrella from which all points of discussion stemmed.

The group holistically examined what exactly constitutes access; how is *access* within the service delivery environment defined? The group examined a range of sources:

- Public facilities
- Private and NGO facilities
- Clinics
- CBD
- Outreach
- Pharmacies

They debated *how and where* to expand access in order to positively affect continuation. The question was raised: Does increasing access lead to a decrease in quality? There was agreement that as long as a supportive policy environment existed to ensure proper training and supervision, and a strong logistics system was in place, an increase in access would not lead to a decrease in quality.

Best Practices Identified

The group identified best practices that focused on ensuring access to various service delivery points. These included:

- Removing barriers at service delivery sites
- Ensuring a logistics and contraceptive procurement system was in place to avoid stock-outs
- Establishing financial schemes to remove cost barriers
- Establishing complementary division of roles between the public and private sectors

The group agreed that service delivery point barriers – such as unreliable hours of operation, eligibility requirements, long waiting times, limited number of pill packets given, and the need for frequent return visits for both pills and DMPA – were all impediments that affect a client’s access to methods, and thus negatively affect continuation rates.

It was considered essential that commodities move through the health care system in order to avoid stock-outs. The existence of a functioning logistical infrastructure is imperative in

guaranteeing that contraceptives are available at the service delivery level. A lack of contraceptive supply has direct implications to continuation.

Removing cost barriers was also considered to be important. It was suggested that removing cost barriers via financial schemes within both the public and private sectors is an area that requires more research. There was also discussion about whether offering a range of formulations would positively affect continuation of hormonal methods; it was determined this issue also requires further research.

While a solid conclusion was not reached in terms of whether integrated services, such as family planning and antiretroviral therapy, would increase continuation, integrating services was identified as a promising practice. Granting greater access to hormonal methods through various service delivery points may provide clients more opportunities to continually obtain the method of their choice.

Demedicalization (increased access for the client through lower-level providers)

The policy environment was examined because of the instrumental role it plays in controlling client access to quality hormonal methods. Demedicalizing the distribution of hormonal methods was generally viewed as an important step to increase client access; controlled access was deemed necessary in order to ensure that clients are receiving quality services and obtaining contraceptive methods that are appropriate for them. Ghana was cited as evidence for the positive effect demedicalization can have; Norplant had previously only been available by doctors, but once the policy changed and nurses were able to provide, there was a notable increase in Norplant uptake. Though the example explicitly addresses uptake, the group felt that increasing access through lower-level providers would affect continuation.

Also discussed was the question of which lower-level providers should be providing hormonal methods, particularly DMPA. While pharmacies were regarded as the most demedicalized source of hormonal methods, there was some concern as to whether pharmacist provision of DMPA in particular should be promoted as a best practice. There were questions about whether pharmacists have the skills to appropriately provide the method and whether clients receive adequate counseling and information. The positive aspects of granting easier, more convenient client access to DMPA were discussed, and the group concluded that provision of hormonal methods within pharmacies could positively affect continuation as long as those providing methods could also deliver quality services.

Community-based distribution agents were cited as another example of demedicalization that increases client access to pills and DMPA; however, sustainability issues surrounding CBD agents were identified as potential barriers that would have to be addressed in order to ensure access to quality services. These issues included:

- System weaknesses in which CBD agents function
- High turnover rates with CBD agents compared to staff working within fixed systems
- Limited storage conditions
- Transportation factors especially within rainy seasons
- Measurement system limitations

These factors can negatively affect client continuation of pills and DMPA if a system is not in place to guarantee quality service provision.

Private nurse/midwives were also discussed as a viable option for the provision of hormonal methods. Nurse/midwives were seen as a sustainable resource especially in rural areas.

The group agreed that strong systems had to be in place to facilitate both CBD and pharmacy provision of hormonal methods. Strong logistics systems to ensure availability of contraceptive supplies at all levels and strong supervision and training systems should be established prior to method provision through lower-level providers.

Health concerns, the community, and the service delivery environment

DHS data illustrate how health concerns are a significant factor impacting continuation; thus, the group deemed it necessary for health concerns to be addressed within the service delivery environment. Health concerns, which are different from side effects, frequently encapsulate myths and rumors about a method. These rumors include the idea that clients need a rest from hormonal methods or that hormonal methods cause cancer.

Creating programmatic interventions to specifically address health concerns and conducting research to assess the impact of these interventions on continuation were viewed as both feasible and pragmatic. The group determined that addressing health concerns through counseling, community mobilization, and BCC mass media messages could positively affect continuation. The group discussed the importance of ensuring that counseling messages generated within the service delivery environment addressed community level concerns. The importance of synthesizing all messaging on health concerns was stressed; thus, mass media messages, messages at service delivery points, and messages within the community should be consistent. The group concluded that raising awareness about health concerns could possibly lead to an increase in both use and continuation, so more research and pilot interventions are needed to capture data on this issue.

Appendix V: Meeting Participants

ADRA
12501 Old Columbia Pike
Silver Spring, MD 20904

Erin Anastasi
Technical Advisor for Family Planning
erin.anastasi@adra.org

The ACQUIRE Project/EngenderHealth
440 Ninth Avenue
New York, NY 10001

Bharat Ban
Monitoring & Evaluation Team Leader
EngenderHealth/Nepal
c/o Nepal Family Health Project
G.P.O Box No. 1600 Kathmandu, Nepal
bban@nfhp.org.np

Karen Beattie
Technical Programs Director
kbeattie@engenderhealth.org

Roy Jacobstein
Clinical Director
rjacobstein@engenderhealth.org

Edna Jonas
Provider Performance Team Leader
ejonas@engenderhealth.org

Jan Kumar
Knowledge to Practice Team Leader
jkumar@engenderhealth.org

Ilze Melngailis
Senior Technical Advisor, Marketing &
Promotion
imelngailis@acquireproject.org

John M. Pile
Senior Technical Advisor, FP Services and
Networks
jpile@engenderhealth.org

Alyson Smith
Program Associate, Family Planning
asmith@engenderhealth.org

Jane Wickstrom
RH/FP Services Team Leader
jwickstrom@engenderhealth.org

Family Health International
2224 E. NC Hwy 54
Durham, NC 27713

Susan Adamchak
Senior Consultant
sadamchak@kansas.net

Joy Noel Baumgartner
Senior Research Associate
jbaumgartner@fhi.org

Kim Best
Managing Editor
kbest@fhi.org

Dawn Chin-Quee
Senior Research Associate
dchin-quee@fhi.org

Cindy Waszak Geary
YouthNet Research Coordinator
cgeary@fhi.org

Rebecca Gmach
Research Associate
rgmach@fhi.org

Vera Halpern
Scientist I
vhalpern@fhi.org

David Hubacher
Senior Epidemiologist
dhubacher@fhi.org

Barbara Janowitz
Director, Health Services Research
bjanowitz@fhi.org

Christine Lasway
Assistant Program Officer
clasway@fhi.org

Hally Mahler
Associate Director
hmahler@fhi.org

Erin McGinn
Associate Director
emcginn@fhi.org

Roberto Rivera
Director, Office of International Research
Ethics
rrivera@fhi.org

Jason Smith
Director, Research Utilization
jsmith@fhi.org

Nancy Williamson
Senior Scientist
nwilliamson@fhi.org

Futures Group
1 Thomas Circle Suite 200
Washington, DC 20005

Karen Foreit
Senior Fellow
kforeit@futuresgroup.com

Ghana Health Service
Private Mail Bag
Ministry Post Office
Accra, Ghana

Gloria J. Asare
Family Planning Coordinator/Programme
Manager
gloasare1@yahoo.com

Institute for Reproductive Health
Georgetown University
4301 Connecticut Ave., NW Suite 310
Washington, DC 20008

Victoria Jennings
Director
jenningsv@georgetown.edu

Rebecka Lundgren
Senior Program Officer
lundgrer@georgetown.edu

IntraHealth International
6340 Quadrangle Drive, Suite 200
Chapel Hill, North Carolina 27517

Maureen Corbett
Director of Programs
mcorbett@intrahealth.org

JHPIEGO
1615 Thames Street
Baltimore, MD 21231

A. Udaya Thomas
Program Officer/Clinical Advisor
uthomas@jhpiego.net

Johns Hopkins
Center for Communication Programs
111 Market Place, Suite 310
Baltimore, MD 21202

Young-Mi Kim
Senior Advisor for Research & Evaluation
ykim@jhucp.org

Deepa Ramchandran
Research Analyst, Population Reports
dramchan@jhucp.org

Measure Evaluation
Carolina Population Center UNC-CH
206 W. Franklin Street, CB#8120
Chapel Hill, NC 27516

Janine Barden-O'Fallon
Research Associate
bardenof@email.unc.edu

Ilene Speizer
Research Associate
speizer@email.unc.edu

PSP-One
1 Thomas Circle NW Suite 200
Washington, DC 20005

Françoise Armand
Social Marketing & Pharmaceutical Partnerships
Director
francoise_armand@abtassoc.com

**Population Council
One Dag Hammarskjold Plaza
New York, NY 10017**

Martha Brady
Associate, Gender & Family Development
mbrady@popcouncil.org

**Population Services International
1120 19th Street NW, Suite 600
Washington, DC 20036**

Jeff Barnes
Director for Technical Services
jbarnes@psi.org

**Save the Children
2000 M Street NW
Washington, DC 20036**

Winnie Mwebesa
Family Planning & Reproductive Health
Advisor
wmwebesa@dc.savechildren.org

**U.S. Agency for International Development
Ronald Reagan Building
1300 Pennsylvania Avenue, NW
Washington, DC 20523-3601**

Rebecca Callahan
Research, Technology & Utilization
rcallahan@usaid.gov

Ann Lion Coleman
Service Delivery Improvement
acoleman@usaid.gov

Carolyn Curtis
Service Delivery Improvement
ccurtis@usaid.gov

Marguerite Farrell
Service Delivery Improvement
mfarrell@usaid.gov

Sarah Harbison
Research, Technology & Utilization
sharbison@usaid.gov

Mihira Karra
Research, Technology & Utilization
mkarra@usaid.gov

Tanvi Pandit
Commodity Security & Logistics
tpandit@usaid.gov

Rushna Ravji
Service Delivery Improvement
rravji@usaid.gov

Joan Robertson
Commodity Security & Logistics
jrobertson@usaid.gov

Jim Shelton
Senior Medical Advisor
Population & Reproductive Health
jshelton@usaid.gov

Elizabeth Warnick
Research, Technology & Utilization
ewarnick@usaid.gov