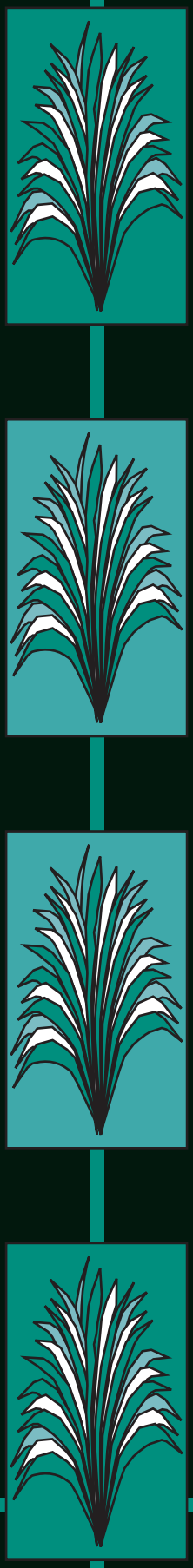

ACQUIRE Evaluation and Research Studies

Tanzania Baseline Survey 2004—2005: Technical Report

E & R Study #4 ◆ May 2006

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Tanzania Baseline Survey 2004–2005: Technical Report

E & R Study #4 ♦ May 2006

Authors:

The ACQUIRE Project
Aparna Jain*
Hannah Searing
John M. Pile
Jane Wickstrom

The ACQUIRE Project/Tanzania
Aimtonga Makawia*
Jennifer Schlecht*
Grace Lusiola
Moshi Ntabaye
Joseph Kanama
Leah Manongi

*Lead author

USAID FROM THE AMERICAN PEOPLE

the ACQUIRE project

The ACQUIRE Project
c/o EngenderHealth
440 Ninth Avenue
New York, NY 10001 U.S.A.
Telephone: 212-561-8000
Fax: 212-561-8067
e-mail: info@acquireproject.org
www.acquireproject.org

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Acronyms/Abbreviations

ACQUIRE	Access, Quality, and Use in Reproductive Health
FP	family planning
HIV/AIDS	human immunodeficiency virus/acquired immunodeficiency syndrome
IEC	information, education, and communication
IP	infection prevention
IUCD	intrauterine contraceptive device
LAPMs	long-acting and permanent methods
MCH	maternal and child health
MOH	Ministry of Health
ML/LA	minilaparotomy under local anesthesia
MVA	manual vacuum aspiration
NSV	no-scalpel vasectomy
PAC	postabortion care
RH	reproductive health
STI	sexually transmitted infection

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This report was edited by Lisa Remez McCormick and was formatted by Elkin Konuk; Michael Klitsch oversaw editorial development.

Executive Summary

The ACQUIRE Project (which stands for Access, Quality, and Use in Reproductive Health) is a five-year global cooperative agreement supported by the U.S. Agency for International Development (USAID). The ACQUIRE Project was launched on October 1, 2003, and is managed by EngenderHealth in partnership with the Adventist Development and Relief Agency International (ADRA), CARE, IntraHealth International, Inc., Meridian Group International, Inc., the Society for Women and AIDS in Africa (SWAA), and SATELLIFE. The ACQUIRE Project seeks to advance and support reproductive health (RH) and family planning (FP) services, with a focus on clinical, facility-based care. USAID/Tanzania has designated the ACQUIRE Project to be the country's RH flagship project and a key mechanism for coordinating efforts to scale up and expand RH/FP services in Tanzania. (A short description of the ACQUIRE Project is available in Appendix A).

A baseline study was conducted in 2004–2005 to measure the situation of RH/FP services in 10 regions of Tanzania where ACQUIRE intends to focus its interventions. The survey used a random probability sample of hospitals, health centers, and dispensaries in the focus regions. The results will be used to measure the contributions of the ACQUIRE Project toward increasing the availability of quality RH services. A pretest-posttest study design will assess facilities' capacity to provide FP and postabortion care (PAC); the extent to which providers received up-to-date training in clinical FP and PAC procedures; and clients' experiences with and perceptions of the quality of care offered. The baseline study collected data through four survey instruments— facility audits, provider interviews, client-provider interaction checklists, and client exit interviews. This report presents data from 325 visited sites across the 10 regions of the project.

The study's three major objectives were to assess indicators of availability, quality of care, and client satisfaction and perception of services. A number of key findings, which illustrate the state of RH/FP services as of 2004–2005 in 10 focus regions of Tanzania, are presented below.

Objective 1. Availability: To Benchmark the Current Situation with Respect to the Availability of FP and PAC Services

FP Services

- Fewer than two out of five facilities were prepared[1] to provide any one of the long-acting and permanent FP methods (LAPMs). For instance, 28% of hospitals were able to provide the intrauterine contraceptive device (IUCD), and 15% of hospitals were able to provide no-scalpel vasectomy (NSV) on the day of the visit.
- Hospitals are better prepared than health centers or dispensaries to provide LAPMs, as well as emergency procedures. This is the result of hospitals having more available staff, equipment, and infection prevention (IP) supplies.
- Fewer than one-half (47%) of all hospitals visited have a doctor available for FP services. However, a much larger proportion (94%) has a nurse available for FP provision.

[1] Prepared is defined as having at least one trained provider, four essential infection prevention supplies, commodities in stock (i.e., intrauterine contraceptive devices [IUCDs] and Norplant implants), the local anesthetic lidocaine (for surgical procedures related to Norplant implant insertion and sterilization only), and method-specific essential instruments or equipment kits.

- Among providers who had been trained in minilaparotomy under local anesthesia (ML/LA), 38% were not able to implement their skills, either because their health facility or department did not offer the service or because they lacked the equipment to provide it.
- A little more than one-half of FP providers have received in-service training in FP counseling (54%) and in short-acting FP methods (51%).
- About one-half of all facilities (48%) do not have signs or posters advertising the availability of FP services.

PAC Services

- Fewer than 50% of hospitals visited reported having a trained person available to provide PAC services.
- Few providers receive in-service training in PAC services; for instance, only about one-third (29%) received in-service training in manual vacuum aspiration (MVA).
- Providers are not giving complete information to PAC clients about their follow-up care upon discharge. For example, 36% of providers reported that they give PAC clients information on where to go in case of complications, 19% reported that they discuss postprocedure warning signs that may need attention, and 17% reported that they discuss postprocedure care.

Supervision and Management

- Providers reported oversight by on-site supervisors, off-site supervisors, or both. For example, 76% of providers reported having on-site supervisors, 68% had been visited by an off-site supervisor within the past three months, and 50% reported that they had received supervision by both an on-site and an off-site supervisor.
- When providers' assessments of on-site and off-site supervisors are compared, higher proportions of providers reported that on-site supervisors had given them performance feedback and discussed their roles and responsibilities (36% and 26%, respectively) than reported that off-site supervisors had done so (27% and 16%, respectively).

Objective 2. Quality: To Benchmark the Current Situation with Respect to the Quality of Care Offered at FP Facilities

Provider Knowledge

- A high proportion of providers knew the duration of the effectiveness of long-acting methods such as the IUCD (78%) and Norplant implants (75%).
- All providers interviewed were unaware of the five key pieces of information[2] that sterilization clients should receive before undergoing the procedure.
- Few providers knew the steps involved in performing bimanual pelvic exams on potential IUCD users. Only one-half (50%) of IUCD providers reported that they check the position of the uterus, and fewer than one-half (47%) reported that they verify the uterus size.

[2] This essential information includes the following points: that temporary contraceptive methods are available; that sterilization is a surgical procedure; that certain risks as well as benefits are associated with the procedure; that, if successful, the procedure is permanent and will prevent the client from having any more children; that the procedure will not protect the client from sexually transmitted infections (STIs), including HIV (data on this element were not collected in this study); and that the client can decide against having the procedure without losing the right to medical, health, or other services or benefits.

Provider Attitudes

- A small but important proportion of providers reported that a client should have a minimum number of children to receive a FP method. For instance, a small proportion (6%) would not offer condoms to nulliparous women. However, a higher proportion of providers would not offer them injectables (21%), the IUCD (17%), or Norplant implants (18%).
- Forty-two percent of providers reported that clients did not have to reach a minimum age to receive tubal ligation, and 50% reported no such limitation for the IUCD. In terms of a maximum age, 85% and 71% of all providers, respectively, felt that there was no maximum age above which they would not provide the condom or vasectomy.

Provider Practices

- Providers asked clients about their desire for more children or their desired timing for the next birth in only 39% of all client-provider interactions.
- In about six out of 10 interactions, providers asked clients about their method preference (59%). In eight out of 10 interactions with new clients (83%), providers discussed more than one FP method.
- According to the client-provider interaction observation data, just over one-half (53%) of pill clients were observed being told what to do if they missed a pill. However, the client exit interview data showed that only 38% of clients left the facility with this knowledge.
- Providers were observed to tell pill clients to take the pill daily in 90% of all interactions. When asked in the exit interview, 99% of these observed clients knew to take the pill daily.

Integration of HIV/STI and FP Services

- The majority of providers reported that they routinely discuss with their FP clients the risk of sexually transmitted infections (STIs) (95%), ask about any STI symptoms (93%), explain HIV/AIDS transmission (94%), and discuss the importance of getting tested (87%). However, observers recorded that providers are not discussing these issues with their FP clients. Providers were observed to discuss these issues in fewer than one in 10 client-provider interactions.
- In 76% of interactions with all clients, providers did not explain that condoms could be used to prevent HIV/STI transmission.

Objective 3. Satisfaction: To Benchmark Clients' Experiences and Their Perspectives on the Quality of FP Services

- When asked by the interviewers, most clients reported that they were satisfied with the RH/FP services provided at facilities (97%) and would recommend the services to family and friends (94%).
- Seven out of 10 (72%) new clients arrived at facilities with a desired FP method in mind. Clients mainly learned about their desired methods through family (5%) or friends (12%). The media and promotional materials currently play a small role in influencing clients' choice of a method—television (0.5%), radio (3%), and brochures (3%).
- One out of five FP clients (21%) had ever been accompanied by their partner on an FP visit; among those whose partner had never accompanied them, more than one-half (52%) reported they would consider having him do so on future FP visits.
- Almost one-half (45%) of returning clients who had a concern about their current method switched to a new method, while 55% continued using their current method.

- Nearly nine out of 10 clients (88%) who did not want any more children were using a short-acting method.

Conclusions and Recommendations

The baseline study provides a great deal of information on the current state of facility-based RH services in Tanzania. This information will enable the Tanzania national RH/FP program to develop appropriate interventions to address the issues identified, in particular the need to:

- Improve access to a wide range of FP methods through a comprehensive approach including training, facility improvements, addressing barriers and biases, and raising awareness of services
- Strengthen the integrated services package so women can obtain services for FP, STIs and HIV/AIDS, and PAC at one facility or be referred for such services when necessary
- Build the capacity of the health system and of partner organizations to improve supervision, logistics, and other support systems

Most importantly, the study results will help all of the organizations and individuals involved to build on the successes of previous RH/FP efforts in Tanzania to bring about even greater improvements in the health of the population.

In addition, according to the data collected in the baseline study, the following six recommendations should be considered to improve the quality and availability of FP/FH services in Tanzania:

1. **Train and update knowledge of providers.**
   The baseline study revealed that many service providers have not received in-service training in FP clinical procedures. Such lack of training is a critical barrier to scaling up FP services across the ACQUIRE focus regions. The low levels of provider knowledge and skill need to be addressed, and current training systems need to be strengthened and supported. Trainings and their follow-up should focus on helping trainees quickly put to use the skills they have learned. Contraceptive technology updates are also recommended to refresh providers' skills and knowledge of FP methods.

2. **Strengthen supervision and management of sites.**
   The findings indicate that supervision systems, both internal and external, are functional. However, the responsibilities of supervisors and how they supervise are not clear. As stated by Huezo and Diaz (1993), in order to meet clients' needs, providers need up-to-date information; training and professional development; good supervision and management support; and adequate infrastructure and supplies. Therefore, the national RH/FP program should support zonal training centers[3] to further increase the management capacity of the Council Health Management Teams and should encourage on-the-job training by supervisors and peers.

3. **Improve awareness of FP through media and public educational materials.**
   Many studies have shown that a comprehensive RH/FP program that includes public information campaigns contributes significantly to increased contraceptive use. For instance, in the early 1990s, the Tanzanian government and several donors made a concerted effort to reduce fertility through the dissemination of public information and educational materials, in addition to increasing the training of providers and ensuring logistical support. As a result, modern

[3] Zonal training centers are responsible for managing in-service training activities under the Human Resources Development Directorate of the Ministry of Health. The six zonal training centers in Tanzania are located in Arusha, Iringa, Kigoma, Morogoro, Mtwara, and Mwanza Regions.

contraceptive use increased greatly throughout the decade, especially between 1991 and 1994 (Chen & David, 2003).

One-half of all facilities (50%) do not have signs or posters advertising the availability of FP services. Moreover, the general absence of brochures and leaflets affect clients' access to information and their understanding of various FP methods. In addition, very few clients learned of FP methods through media sources. Yet most clients came to the facility with a method in mind (although this study could not determine if clients had correct information about the particular method). This suggests that the national RH/FP program should explore dissemination of FP messages through a variety of means, including the mass media, community participation and leadership, outreach workers, and informal peer networks. The national RH/FP program should also strengthen linkages between service sites and the communities in which they are located. Linkages could be strengthened by sensitizing and updating community health workers and volunteers to FP and comprehensive PAC issues and by enlisting their support.

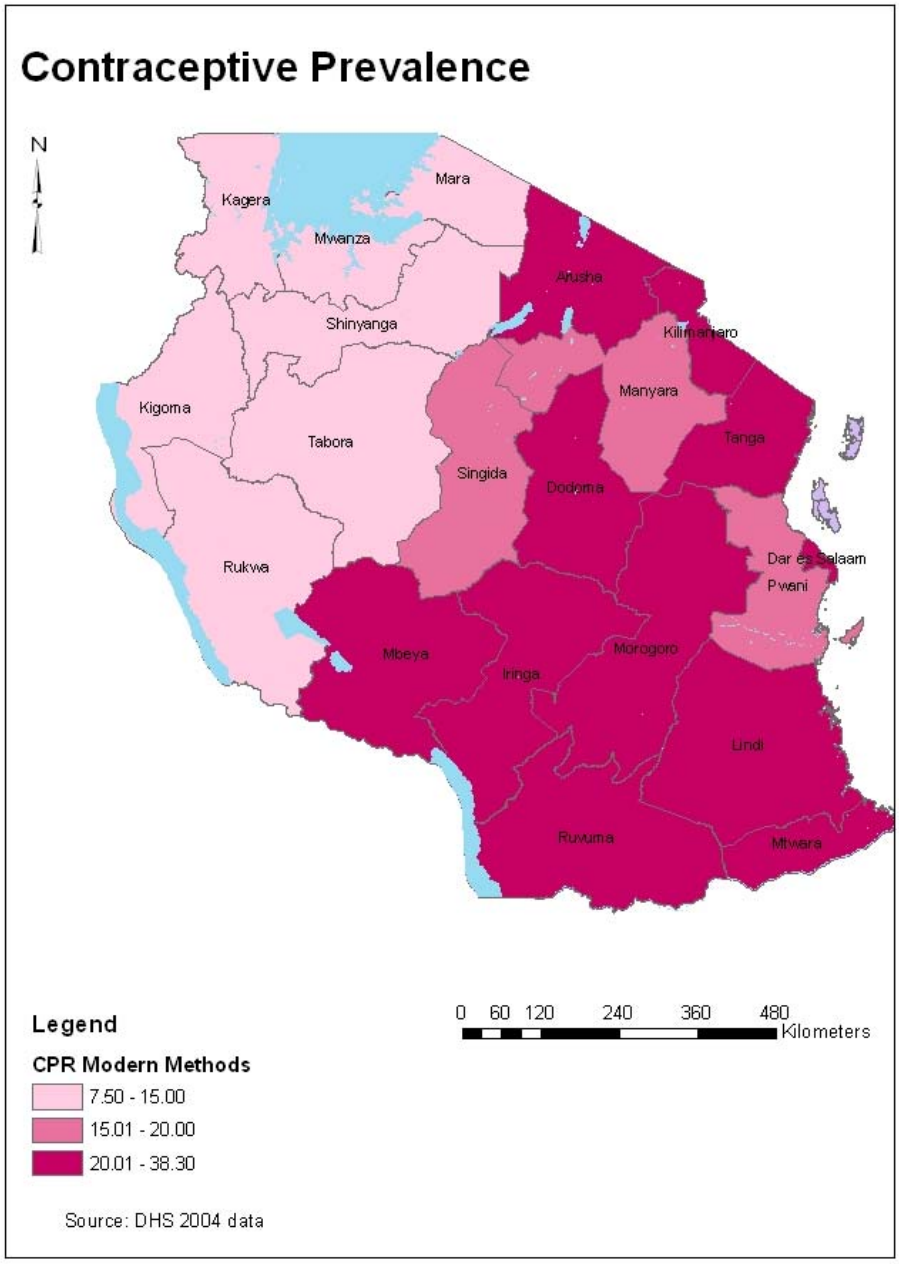
4. **Improve the availability of quality PAC services.**
   The availability of quality PAC services was limited. Clients requiring treatment for postabortion complications may not have immediate access to emergency care, since PAC services are limited primarily to hospitals, and comprehensive and functional referral systems are lacking. This is particularly important, as Tanzania's maternal mortality ratio is 529 maternal deaths per 100,000 births and approximately 30% of these deaths are due to abortion.

   Training and knowledge updates in comprehensive PAC, which incorporates contraceptive counseling and services into such care, are recommended. The national RH/FP program should explore the feasibility and cost to the health system of decentralizing PAC services to lower-level facilities (i.e., health centers and dispensaries). This would require the program to train health center and dispensary staff to provide PAC services. Community-level interventions to improve PAC access and quality should be explored in tandem with facility-level ones, specifically efforts to ensure that clients reach facilities with little to no delay.

5. **Tailor counseling to meet clients' needs.**
   According to the study findings, providers' skills at assessing clients' needs and reasons for coming to the facility could be improved. For example, providers asked new clients about their desire for more children or the desired timing of their next birth in 55% of client-provider interactions. However, as expected, providers were observed to provide more complete information about FP methods (e.g., method side effects, warning signs, when to return for follow-up visit, etc.) to new clients than to returning clients who had a method concern.

6. **Improve integration of HIV/STI services into FP services.**
   Providers rarely used FP visits to assess STI risk, communicate about HIV prevention, or discuss the role of condoms in dual protection, despite high levels of provider knowledge about these issues. Ideally, integration should be achieved during all counseling sessions with clients at all facilities. To provide more integrated RH/FP services, the program needs to develop and strengthen providers' capacity to counsel clients on dual method use, ask about their STI risk, and stress the importance of being tested.

Map of Tanzania



Introduction/Background

The 2004–2005 Tanzania baseline study, conducted by the ACQUIRE Project, assessed the capacity and quality of care offered at facilities that provide family planning (FP) and postabortion care (PAC) services. The study focused on multiple aspects of the service environment and factors that impact quality service delivery. The survey assessed the availability of equipment and commodities at the facility level, along with providers' skill levels and attitudes. In addition, it explored clients' perspectives on the quality of FP services and on the FP decision-making environment.

The baseline study results serve as an initial measure to assess the effect of ACQUIRE interventions. The endline study is anticipated for FY 2007–2008 and will document changes in key project indicators that occur as a result of ACQUIRE interventions. Data from the baseline study also feed directly into the programmatic decision-making process to ensure that interventions target the specific supply and demand needs of the local context.

Country Context

The United Republic of Tanzania has recently made great strides in reproductive health (RH). The use of modern contraceptive methods more than tripled in the past decade, going from 7% among currently married women in 1991–1992 to 20% in 2004–2005 (National Bureau of Statistics [NBS] & ORC Macro, 2005). Over the same period, the total fertility rate decreased from 6.2 lifetime births per woman to 5.7 (NBS & ORC Macro, 2005). However, program momentum slowed considerably over the past five years; for example, the increase in modern contraceptive method use was much smaller between the two most recent Demographic and Health surveys than between the earlier surveys (i.e., three percentage points vs. six percentage points) (NBS & ORC Macro, 2005.) Furthermore, Tanzania faces rising, demographically driven RH demands. More than one-half the population is under the age of 25, and increasing numbers of young people are entering the reproductive ages each year. The number of women of reproductive age (15–49 years) is projected to increase to 10.7 million by 2009, from 8.2 million estimated in 2002 (a 30% increase) (Population and Housing Census, 2002; Ross, Stover, & Adelaja, 2005).

Contraceptive use varies significantly by geographical zone, from a high of 42% in the Northern Highlands (Arusha, Kilimanjaro, and Manyara regions) to 13% in the Lake Zone (Kagera, Kigoma, Mara, Mwanza, Tabora, and Shinyanga regions). At the regional level, Kilimanjaro has the highest contraceptive prevalence (50%) and Pemba North the lowest (7%) (NBS & ORC Macro, 2005).

Although contraceptive prevalence has increased, unmet need remains high—two in five (22%) currently married women have an unmet need for FP. In terms of absolute numbers, twice as many married women have an unmet need for contraception as currently use a modern contraceptive (1.1 million vs. 880,000). Though many married women have an unmet need to limit births, long-acting and permanent methods (LAPMs) remain underused, and their prevalence rates have remained static or have even decreased over time.

One result of high unmet need is the problem of unsafe abortion. Tanzania's maternal mortality ratio is 529 maternal deaths per 100,000 live births, and approximately 30% of these maternal deaths are due to abortion (Kinoti et al., 1995). However, fewer than 5% of health facilities provide PAC services (ACQUIRE Project/Tanzania, 2004).

Study Methodology and Implementation

Study Objectives

The objectives of the baseline survey described in this report were to benchmark:

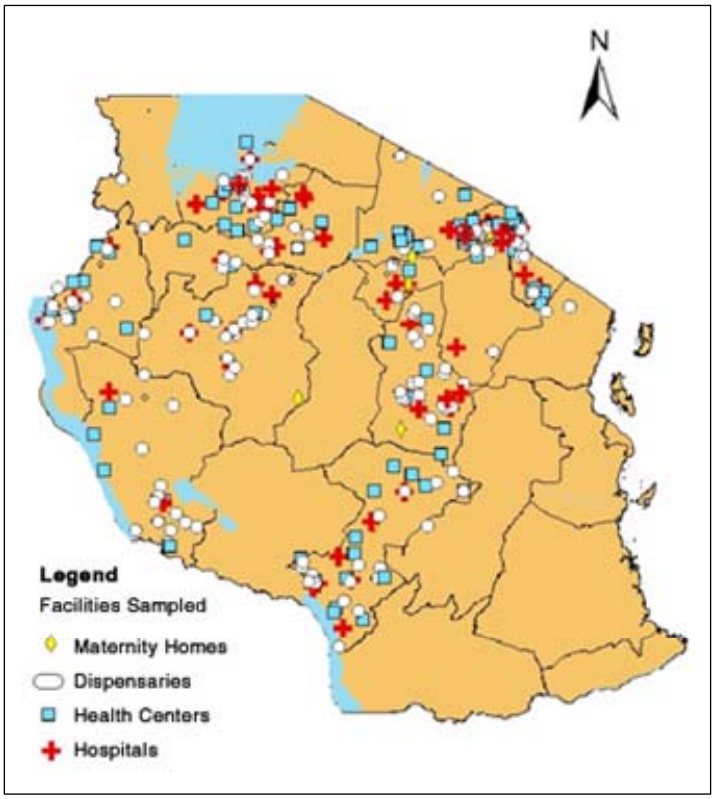
- The current situation with respect to availability of FP and PAC services
- The current situation with respect to the quality of care offered at FP facilities
- Clients' experiences and perspectives related to the quality of FP services

Study Design

A pretest-posttest study design is being applied to evaluate the contributions of the ACQUIRE Project to changes in the availability and quality of RH/FP services. This baseline study documents the situation of FP and PAC services prior to ACQUIRE's interventions.

Four study instruments were implemented at facilities across ACQUIRE's 10 focus regions.[4] During Phase I of the project, in November 2004, the facility audits were conducted. During Phase II, in May 2005, the three remaining study tools were administered—provider interviews, client-provider interaction checklists, and client exit interviews.[5]

Figure 1. ACQUIRE baseline survey, sampled sites



Sampling

A stratified, random probability sampling scheme was used to select facilities from sites identified to receive support from the ACQUIRE Project by June 2006. Facilities were stratified by type (hospitals, health centers, and dispensaries) (Figure 1). Moreover, the sample, which included facilities from across all 10 focus regions, was determined so that the results would be generalizable to all

[4] The ACQUIRE Project is being implemented in 10 of Tanzania's 21 mainland regions: Arusha, Dodoma, Iringa, Kigoma, Kilimanjaro, Manyara, Mwanza, Rukwa, Shinyanga, and Tabora. These regions account for 47% of all women of reproductive age (15–49) in the country. The 10 regions, which represent 56 administrative districts, have a total of 2,523 health facilities—95 hospitals, 187 health centers, 12 maternity homes, and 2,229 dispensaries.

[5] Some facility audits of sampled sites were conducted during Phase II instead of Phase I.

ACQUIRE-supported sites. They included facilities run by a range of organizations, including the Ministry of Health (MOH), the Evangelical Lutheran Church in Tanzania, the Seventh-Day Adventist Church, the Private Nurses and Midwives Association of Tanzania, and other faith-based and private organizations.

A random sample of 335 sites was drawn from a total of 403 sites.[6] Table 1 shows the number of facilities sampled from the total universe and the number of facilities visited. The sample represents 100% of hospitals, 87% of health centers (which include maternity homes) and 78% of dispensaries. (A more detailed description of the sampling design is presented in Appendix B.)

Table 1. Number of facilities sampled and visited

Facility type	Number of facilities		
	Total universe	Sample	Successfully visited
Hospitals[1]	61	61	61
Health centers/maternity homes	113	98	91
Dispensaries[2]	229	176	173
Total	**403**	**335**	**325**

[1] Hospitals include regional hospitals, district hospitals, designated district hospitals, and other hospitals supported by faith-based or private organizations.

[2] Dispensaries are supported by the MOH, the Evangelical Lutheran Church of Tanzania, the Seventh-Day Adventist Church, and the Private Nurses and Midwives Association of Tanzania.

Quota samples by facility type were created for determining the number of providers and clients to interview and the number of client-provider interactions to observe. It was determined that three to five client-provider interactions would be observed and three to five client exit interviews would be conducted at each facility. Between two and four providers would be interviewed in FP and/or PAC at hospitals and health centers, and one to three at dispensaries. Issues taken into consideration for establishing these quota samples included the expected time needed to administer each study instrument, the amount of time spent at each facility (limited to one day only), and the number of data collectors on each study team.

Study Instruments

The four study instruments were adapted from data collection tools developed by MEASURE Evaluation[7] for the AMKENI Project.[8] The instruments, which were translated into Kiswahili and then back-translated into English for accuracy, were field tested in Tanzania. The study instruments included the following:

Facility Audit. Audits were conducted to capture facilities' capacity to provide FP and PAC services and consisted of both observation and interview components. Data collectors observed and recorded the visible characteristics of facilities (e.g., signboards, advertisements, and available stock/commodities). The facility director or in-charge was also interviewed to gather information on services offered, supervision systems, staffing, community involvement, and infection prevention (IP) practices.

Client-Provider Interaction Checklist. An observation checklist was used to observe FP providers during client consultations. Observers recorded information on health assessments, discussion of FP methods and STIs, including HIV, practices to ensure confidentiality, and accuracy of the

[6] The sampling plan is based in large part on the sampling manual by Turner et al. (2001).

[7] The study instruments implemented by MEASURE Evaluation in the AMEKNI Project were adapted from the Population Council's situation analysis approach (see Miller, R., et al., 1997).

[8] AMKENI is a bilateral project led by EngenderHealth in Kenya.

information provided. In addition, observers documented adherence to IP techniques during clinical FP procedures.

Client Exit Interview. The client interview was administered to FP clients upon completion of their consultation as they left the facility. The tool recorded clients' method preferences and use, the accuracy of the information they received, and their perspectives on the quality of care received and on aspects of satisfaction.

Provider Interview. The provider interview was designed to capture providers' knowledge, routine practices, attitudes, and training received in FP and PAC services. General information on HIV/STI integration with other services and providers' experiences with supervision systems was also collected.

Study Implementation

Training of Data Collectors

The training of data collectors was conducted separately for each phase of the study. A participatory training approach was used and included role-playing, mock observations, and interviews. To ensure data quality, competency exams were given to data collectors at the end of each training session. Those who did not meet standards were excluded from the data collection process. Training during Phase I of the facility audits lasted five days, and 57 data collectors were selected. The training during Phase II lasted 10 days, and 60 data collectors were selected.

To ensure that the data collectors would have hands-on experience with the study instruments and be able to work in small groups, three facilitators were hired to co-lead a training workshop during Phase II. Before the data collector training, the facilitators participated in a three-day workshop to review the study instruments in English.

Data Collection

Phase I data collection took place in November 2004, and Phase II data collection took place in May 2005. Data collection teams were supported and accompanied by Reproductive and Child Health Services supervisors. Data collectors included doctors, nurses, clinical officers, and social scientists. The medical personnel were specifically trained to complete the observation checklists and conduct provider interviews and facility audits; the social scientists were trained to conduct the client exit interviews. Specific individuals were designated as team leaders and were provided with additional training in reviewing questionnaires, completing logbooks, and maintaining the completed questionnaires. Team leaders were also provided with phone cards for their cell phones and contact numbers of EngenderHealth staff and facilitators.

Of the 335 sites selected in the sampling, 325 sites were successfully visited. The 10 facilities that were not visited were either inaccessible or could not be found (three); had closed down or no staff were available to be interviewed (three); or did not offer any FP or PAC services (four). Table 2 (page 6) shows the total number of survey tools that were successfully implemented, by type of instrument. A total of 310 facility audits, 681 provider interviews, 773 client-provider interactions, and 757 client exit interviews were completed at the sampled sites. Facility audits were not conducted at 15 sites for unexplained reasons.

Providers interviewed were asked whether they provided FP and/or PAC services. Of the 681 providers interviewed, 488 provided FP counseling or services, 69 provided treatment of PAC

complications only, and 98 provided both FP and PAC services. Data for 26 respondents were missing and excluded from the analysis.

Table 2. Number of data collection tools implemented, by facility type

Facility type	Facility audit	Provider interview	Client-provider interaction checklist	Client exit interview	Linked interaction and exit interview
Total	310	681	773	757	756
Hospitals	60	212	228	222	222
Health centers	96	201	242	237	236
Dispensaries	154	268	303	298	298
% of all facilities sampled where survey tool was implemented	95.4	94.8	75.1	74.2	74.2

The study was designed so that the same FP clients whose consultations were observed would also be interviewed. Unique identification codes were recorded on the client-provider interaction checklists and client exit interview questionnaires so that individual clients could be matched with their FP consultations. Overall, 756 client interviews were linked to their client-provider interaction observation. [9, 10]

Data Processing and Analysis

Team leaders brought the completed survey tools to Dar es Salaam at the completion of data collection. Questionnaires were reviewed and notes from field teams shared. Data were then entered into the Statistical Package for Social Services (SPSS) by a data entry team that was contracted and overseen by HealthScope/Tanzania.

Phase I data, which consisted exclusively of results from the facility audits, were initially cleaned and analyzed by HealthScope/Tanzania. Phase II data were cleaned and analyzed by ACQUIRE Project staff. Because some of the facilities that were unreachable during Phase I were visited later during Phase II, all facility audit data were merged, cleaned, and analyzed by ACQUIRE Project staff.

ACQUIRE Project staff analyzed the availability, quality of care, and satisfaction indicators from the four datasets. Positive responses and percentages were calculated with missing and "don't know" responses included in the denominator, unless otherwise noted. Therefore, percentages in some of the data tables may not add up to 100%. This approach ensures the presentation of conservative estimates and will be repeated with the presentation of endline results. If data were missing for an entire section, any missing cases were removed from the analysis and documented as such.

Study Limitations

Since this study does not include controls, improvements in FP availability, quality of care, and client satisfaction cannot definitively be attributed to the ACQUIRE Project.

The limitations associated with each of the data collection instruments are listed below.

[9] The reasons why 16 observations were not successfully linked with the client exit interview were because the client refused to be interviewed; the client left the facility before the data collector could conduct the interview; and the data collector was interviewing another client.

[10] All analyses of the client exit interview data are presented for 757 cases. All future analyses will be restricted to the 756 matched cases.

- *Client-Provider Interaction Checklist*. The presence of an observer during the counseling session may have influenced the provider's performance in a positive way. At the same time, observers may not have recorded everything in the checklist that occurred during a consultation.
- *Client Exit Interview*. Courtesy bias may have resulted if clients gave more positive responses than usual in order to please the interviewer or if the interview was held near the facility.
- *Provider Interview*. Providers may have reported what they *should* do instead of what they *actually* do.
- *Facility Audit*. Data were collected in two phases and thus at two different points in time. The results presented in this report are an aggregate of the two datasets.

Facility, Provider, and Client Profiles

This study collected baseline data from 325 of the 335 sampled sites in the project regions. Facility audits were not conducted at 15 of the 325 sampled sites, but the reasons why these audits were not conducted could not be discerned from the team leaders' diaries. (Data tables for this section of the report can be found in Appendix C.) The majority of the sites sampled are located in rural areas (64%, Table C1 in Appendix C) and are run by the government (57%, data not shown in table).

The background characteristics of clients and providers are shown in Table C2 and Table C3 in Appendix C. Of the 681 providers who were interviewed, 73% were female and their mean age was 41.8 years. Providers interviewed were most commonly nurses (37%), followed by clinical officers (21%), maternal and child health (MCH) aides (15%), and doctors (9%). The majority of providers (76%) were married. Providers were predominantly Protestants (43%) and Catholics (42%). Nearly two out of three providers (64%) were FP users themselves (mostly of short-acting methods, data not shown in table).

The 757 clients interviewed were generally 15 to 20 years younger than their providers, with a mean age of 28.4 years. The vast majority (86%) were married, 7% were in union or living with a partner, 4% were single, and the remaining 4% were divorced, separated, or widowed. Clients had an average of three living children. The majority (63%) reported wanting more children, and 90% of those wanted to postpone the birth of their next child for two or more years.

Results

Objective 1. Availability: To Benchmark the Current Situation with Respect to Availability of FP and PAC Services

The baseline study examined the availability of RH/FP services. For the purposes of this study, availability is defined as a facility's readiness to provide services through having the necessary supplies, commodities, and trained staff; information, education, and communication (IEC) materials for FP services; supervision and management systems; and training capability. The measurement of these attributes helps to assess a facility's service-delivery capacity.

According to the *Guideline Standards for Health Facilities* (United Republic of Tanzania, 1996) and ACQUIRE medical staff in Tanzania, staffing structures and FP services offered at hospitals, health centers, and dispensaries vary. For instance, hospitals are required to have three medical officers, six clinical officers, and one nurse per three beds per shift and to offer all LAPMs (i.e., IUCDs, Norplant implants, tubal ligation, and vasectomy) in addition to pills, injectables, and condoms (short-acting methods) and PAC. On the other hand, health centers are required to be staffed with one assistant medical officer, four clinical officers, two registered nurse-midwives, two public health nurses (Category B), and two MCH aides, as well as to offer all LAPMs and short-acting methods. Finally, dispensaries are to be staffed with one assistant medical officer (who acts as a supervisor), one clinical officer, one assistant clinical officer, one registered nurse-midwife, one public health nurse, and one MCH aide, as well as to offer short-acting and long-acting methods only (not permanent methods).

The *MOH Policy Guidelines and Standards for Family Planning and Service Delivery Training* specify various cadres to receive training in RH/FP (United Republic of Tanzania, 1994). All providers are eligible for training in the provision of FP counseling and short-acting methods. Clinical officers and nurses are also eligible for training in the provision of long-acting methods, and medical officers and assistant medical officers may receive training in all methods but are targeted for training in the provision of permanent methods.

Facility Capacity

Basic facility infrastructure

Facility structures were observed and recorded in the facility audit assessment tool. Findings from this study illustrate that higher-level health facilities are better equipped to provide FP methods because they have greater resources and structural capacity (see Table 3, page 12). For example, hospitals had electricity on the day of the visit (90%), an on-site telephone for emergency situations (72%), and piped water in the facility (70%). Study findings also indicate that the majority (68%) of all facilities have an area allotted for FP counseling, and almost half (49%) have a space for the provision of FP services. An operating theater that can be used to conduct FP procedures was present at 85% of hospitals.

Staffing

According to the national RH/FP guidelines, doctors, clinical officers, and nurses can provide long-acting and short-acting methods. In addition, doctors can perform permanent FP procedures. Fewer than one-half (47%) of the hospitals surveyed reported that they had a doctor available for FP services (Table 3).

Table 3. Percentage of facilities with basic facility infrastructure components, IEC materials, and providers available for FP

Indicator	Hospital (n=60)	Health center (n=96)	Dispensary (n=154)	Total (n=310)
Basic Facility Infrastructure				
Electricity on day of visit	90.0	60.4	28.4	50.3
On-site telephone	71.7	43.8	29.9	42.3
Main water source				
Piped water in facility	70.0	55.2	27.9	44.5
Piped water outside facility	6.7	3.1	14.9	9.7
Water from protected well	1.7	8.3	20.1	12.9
Water from unprotected well	10.0	12.5	15.6	13.5
Surface water/river water	5.0	4.2	9.7	7.1
Rain water catchment system (roof)	3.3	9.4	9.1	8.1
Designated area for				
FP counseling	76.7	70.8	63.6	68.4
FP procedure	55.0	50.0	46.1	49.0
Surgery/operating theater	85.0	19.8	13.0	29.0
Type of provider available for FP				
Doctor (medical officer/assistant medical officer)	46.7	9.4	6.5	15.2
Clinical officer (assistant clinical officer)	30.0	47.9	48.7	44.8
Nurse (nurse officer, nurse/midwife, public health nurse A&B)	93.9	85.4	44.8	66.8
MCH aide	38.3	51.1	33.8	40.1
At least one FP provider available	**75.0**	**75.0**	**68.2**	**71.6**
IEC materials				
FP signboards or posters advertising availability of services	56.7	54.2	41.6	48.4
FP clinic hours posted	13.3	8.3	2.6	6.5
FP brochures in waiting area	70.0	68.8	45.5	57.4

Source: Facility audit 2004–2005

The availability of professionals to provide FP services was assessed at each facility type; close to one in four facilities (24%, data not shown in table) do not have a provider on-site to provide FP services. The majority of hospitals and health centers reported that they were staffed by at least one nurse who provides FP services (94% and 85%, respectively). Dispensaries were roughly equally likely to have nurses or clinical officers on staff (49% and 45%, respectively). As mentioned earlier, the presence of nurses or clinical officers is essential for the provision of both Norplant implants and intrauterine contraceptive devices (IUCDs). Sixty-seven percent of facilities overall were staffed by a nurse and 45% had a clinical officer on staff.

Signboards/posters/brochures

The facility audits also assessed whether signboards, posters, and brochures advertising RH/FP services were displayed. Observers confirmed that one-half (49%) of all sites visited did not have FP signs or posters advertising the availability of services. Seven percent of facilities posted FP clinic hours. The study also found that more than one-half (57%) of the facilities offered FP brochures in the waiting room. The absence of such promotional materials contributes to the inaccessibility of information on services and methods.

Infection prevention supplies and essential equipment

IP supplies and exam equipment are essential for the provision of quality FP services. The majority of all facilities reported the presence of gloves, disposable needles and syringes, soap, and appropriate disposal containers (see Table 4). Of the 10 IP components assessed, 26% of all facilities had all 10 components available on the day of the visit. This proportion varied from 15% among dispensaries to 53% among hospitals. Although the majority of these facilities had most of the IP supplies, chlorine powder and buckets for high-level disinfectant were present less frequently than other supplies.

Table 4. Percentage of facilities with IP supplies on day of visit

Supply	Hospital (n=60)	Health center (n=96)	Dispensary (n=154)	Total (n=310)
Sterile gloves	86.7	86.5	87.7	87.1
Exam gloves	95.0	88.5	90.9	91.0
Disposable needles	86.7	89.6	81.8	85.2
Disposable syringes	91.7	94.8	89.0	91.3
Soap for handwashing	96.7	96.9	87.7	92.3
Chlorine powder	88.3	60.4	50.6	61.0
Puncture-resistant container for sharps	86.7	65.6	70.8	72.3
Plastic bucket with lid	90.0	84.4	64.3	75.5
Bucket for high-level disinfectant	88.3	67.7	47.4	61.6
Instrument tray	95.0	83.3	72.7	80.3
All supplies	**53.3**	**27.1**	**14.9**	**26.1**

Source: Facility audit 2004–2005

Similarly, when general examination equipment was assessed, most facilities were equipped with exam tables, scales, stethoscopes, and thermometers (see Table 5). Overall, 21% of all facilities had eight essential pieces of equipment on the day of the visit. As expected, hospitals were generally better equipped than health centers and dispensaries. The data for health centers and dispensaries are shown in Table 5 to illustrate the degree to which programs would need to upgrade facilities to increase access of services at lower-level facilities.

Table 5. Percentage of facilities with essential equipment on day of visit

Supply	Hospital (n=60)	Health center (n=96)	Dispensary (n=154)	Total (n=310)
Examination table	90.0	92.7	75.3	83.5
Surgical table	91.7	26.0	13.0	32.3
Lamp that can be positioned for pelvic exam	75.0	31.3	12.3	30.3
Scale	93.3	93.8	96.1	94.8
Stethoscope	96.7	94.8	90.9	93.2
Thermometer	96.7	100.0	97.4	98.1
Blood pressure machine	98.3	97.9	93.5	95.8
I.V. stand	96.7	75.0	29.2	56.5
All supplies	**66.7**	**13.5**	**7.1**	**20.6**

Source: Facility audit 2004–2005

Table 6. Percentage of facilities with IP elements available, and percentage ready to provide specific LAPMs on day of visit

Readiness indicator and method	Hospital (n=60)	Health center (n=96)	Dispensary (n=154)
IP composite indicator			
Bucket with lid	90.0	84.4	64.3
Bucket for high-level disinfectant	88.3	67.7	47.4
Chlorine powder	88.3	60.4	50.6
Puncture-resistant container	86.7	65.6	70.8
All 4 IP elements available	**71.7**	**33.3**	**20.1**
NSV			
At least 1trained provider	30.0		
All 4 IP elements available	71.7		
NSV kit/instruments	30.0		
Lidocaine	90.0		
Ready to provide method	**15.0**		
ML/LA			
At least 1trained provider	53.3		
All 4 IP elements available	71.7		
ML/LA kit/instruments	76.7		
Lidocaine	90.0		
Ready to provide method	**38.3**		
IUCD			
At least 1trained provider	48.3	30.2	13.0
IUCD in stock	60.0	40.6	16.2
All 4 IP elements available	71.7	33.3	20.1
IUCD kit/instruments	73.3	44.8	17.5
Ready to provide method	**28.3**	**11.5**	**0.0**
Norplant implant			
At least 1 trained provider	45.0	10.4	7.1
Norplant implants in stock	60.0	15.6	9.7
All 4 IP elements available	71.7	33.3	20.1
Norplant implant kit/instruments	86.7	14.6	7.8
Lidocaine	90.0	88.5	85.7
Ready to provide method	**25.0**	**4.2**	**0.0**

Source: Facility audit 2004–2005

Facility readiness to provide FP services

Facilities were assessed on the basis of their ability to provide specific FP methods on the day of the visit. A composite indicator was created to determine facility readiness for each LAPM. Readiness was defined as having the following five elements on-site: at least one trained provider;[11] all four essential IP supplies;[12] commodities in stock (i.e., IUCDs and Norplant implants); the local anesthetic lidocaine (for surgical procedures related to Norplant implants and sterilizations only); and method-specific essential instruments or equipment kits. The facility

[11] For the facility audit, the individual in charge at the facility (or next in charge) was asked to state how many trained providers were available for each FP method.

[12] The four essential IP supplies are a bucket with lid, a bucket for high-level disinfectant, chlorine powder, and a puncture-resistant container.

preparedness analysis used the national RH/FP guidelines mentioned earlier. Thus, preparedness to provide long-acting methods was examined at all types of facilities, whereas readiness to provide permanent methods was examined only at hospitals.[13]

The findings in Table 6 suggest that the absence of a trained provider was the factor that most limited facilities' preparedness. Lack of kits/instruments and of commodities were also limiting factors, but to a greater degree for long-acting than for permanent methods. Overall, fewer than two out of five facilities were ready to provide *any one* LAPM (Table 6). Only 15% of hospitals were prepared to provide no-scalpel vasectomy (NSV) and 38% were ready to provide minilaparotomy under local anesthesia (ML/LA). Higher proportions of hospitals than of health centers were ready to provide Norplant implants (25% vs. 4%) and the IUCD (28% vs. 12%); however, no sampled dispensary was prepared to provide either long-acting method.

Training Capacity

Provider training in FP

This study collected information on providers' training in FP and their delivery of FP services. As mentioned earlier, the *MOH Policy Guidelines and Standards for Family Planning and Service Delivery Training* specify various cadres to receive training in RH/FP (United Republic of Tanzania, 1994). The facilities' experience with training their staff was therefore examined with these standards in mind.

Table 7 shows where the providers who reported receiving in-service training were interviewed. As expected, the vast majority of doctors who reported receiving in-service training in permanent methods were interviewed at hospitals.

Table 7. Among cadres, percentage who received training in specific methods, by facility type

Facility type	All providers[1] (n=586)		Doctors, nurses, clinical officers (n=365)		Doctors (n=20)	
	FP counseling	Short-acting methods	Norplant implant	IUCD	NSV	ML/LA
Hospitals	17.1	15.2	9.0	12.3	5.0	50.0
Health centers	16.9	16.7	2.2	7.4	0.0	5.0
Dispensaries	20.0	19.3	3.0	6.8	0.0	0.0
Total	**53.9**	**51.2**	**14.2**	**26.6**	**5.0**	**55.0**

Source: Provider interview 2005

[1] Analysis restricted to the 586 providers who offer FP counseling or services.

As Table 8 (page 16) shows, only a small percentage of providers interviewed had received in-service training in LAPMs, and of those trained in LAPMs, the majority had received their training more than four years before. Among those providers authorized by MOH guidelines to insert Norplant implants or an IUCD (i.e., doctors, clinical officers, and nurses), only 14% received in-service training in Norplant implants and 27% in the IUCD. Furthermore, 55% (11/20) of doctors received training in ML/LA; only 5% (1/20) received training in NSV, which may help to explain facilities' limited capacity to provide NSV (15% of hospitals), as seen in Table 6.

[13] Facilities' preparedness to offer permanent methods was not assessed at health centers because these services are only offered if an assistant medical officer is on staff.

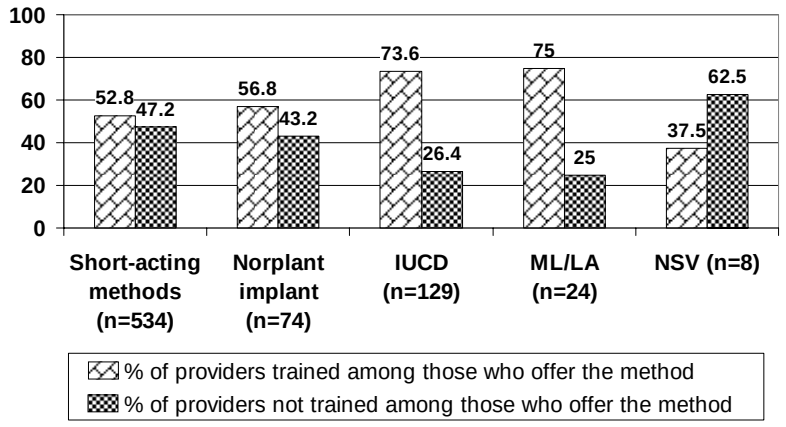
Table 8. Training received among cadres of providers, by timing and content of training

Training indicator	All providers (n=586)		Doctors, nurses, clinical officers (n=365)		Doctors (n=20)	
	FP counseling	Short-acting methods	Norplant implant	IUCD	NSV	ML/LA
% received training	**53.9**	**51.2**	**14.2**	**26.6**	**5.0**	**55.0**
No. of yrs. since training (%)						
<2	18.3	14.8	7.9	6.3	0.0	35.0
2–4	5.1	4.9	1.9	1.1	0.0	15.0
>4	30.5	31.4	4.4	19.2	5.0	5.0
% providing method			17.8	27.1	25.0	75.0

Source: Provider interview 2005

The majority received their in-service training more than four years before. For instance, 19% of providers received their in-service training in IUCD provision more than four years before (Table 8). Similarly, 31% of providers received in-service training in short-acting methods and FP counseling more than four years before. Low levels of training in short-acting methods are of particular concern in Tanzania, where the pill and injectables comprise the majority of method use and where 90% of providers stated that they personally provide short-acting FP methods (data not shown in table).

Figure 2. Percentage of providers offering an FP method who either received or had not received in-service training



Source: Provider interview 2005

In this study, providers of all cadres were asked if they personally provide each method and in which FP services they have received in-service training. According to Figure 2, providers offer methods without training in those methods. This occurs with each individual method, although it is slightly more likely to happen with short-acting methods. For example, 47% of providers offered clients short-acting methods without being trained in them, as did 26% of staff who provide clients with an IUCD. Sixty-three percent of providers (5/8) reported offering NSV without in-service training in the method. Some of these providers, however, may have received on-the-job training.

Application of training and skills

Another interesting finding from the training data is that numerous providers who have received training are not providing services. Providers were asked whether they had been able to apply the

skills acquired from their trainings and what were the main barriers to doing so (see Table 9). Providers were unable to implement their skills because their facility or department did not offer the service or lacked the equipment to do so. Of those who had reported receiving in-service training in the provision of IUCDs and Norplant implants, 15% and 29%, respectively, stated that they were not able to apply those skills in their job. The majority of these providers reported that the appropriate equipment was not available at the facilities.

Overall, providers trained in NSV were unable to apply their training because equipment was not available (11%) or their facility did not offer NSV services (17%, Table 9). Providers trained in ML/LA faced similar difficulties, with 12 of 32 (38%) saying they were unable to apply their newly acquired skills and one-half of these (19%) stating that their facility or department did not offer the service.

Table 9. Percentage of providers who received in-service training, percentage who were able or unable to apply that training, and percentage reporting reasons why they were unable to do so

Indicator	Norplant implant	IUCD	ML/LA	NSV
% of all providers who received in-service training (n=586)	**11.9 (n=70)**	**22.5 (n=132)**	**5.5 (n=32)**	**3.1 (n=18)**
% of trained providers able to apply their skills	71.4	83.3	62.5	44.4
% of trained providers unable to apply their skills	28.6	16.7	37.5	55.6
Reasons why unable to apply skills				
Lack of equipment	17.1	13.6	3.1	11.1
Facility/dept. does not provide service	5.7	0.8	18.8	16.7
Does not personally provide service	1.4	0.0	6.3	11.1
Requires more training	1.4	0.0	3.1	5.6
Other/no response	2.8	2.3	6.3	11.1

Source: Provider interview 2005

Overall, these data suggest that training and refresher training need to be offered for all FP methods. Many providers, especially those in the cadres that are recommended to provide services by the MOH, lacked the suggested training.

Facility Readiness to Provide PAC

Facility capacity

Treating emergency abortion complications is a challenge in Tanzania's health care system. According to the 1996 *MOH Guideline Standards for Health Facilities*, PAC services are available at hospitals only. The findings from this study indicate that 48%of hospitals had at least one trained PAC provider. Data are presented for health centers and dispensaries to highlight the gaps that need to be addressed by programs to decentralize PAC services to lower-level facilities (i.e., health centers and dispensaries). As can be seen in Table 10 (page 18), equipment availability varied across facility types.

Table 10. Percentage of facilities with essential components of PAC services

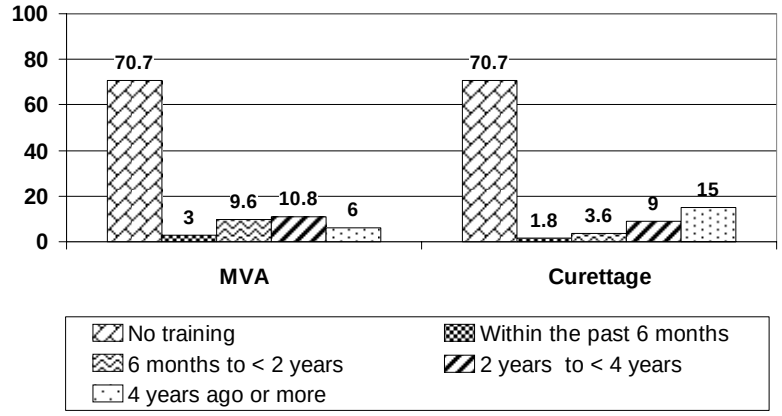
Component	Hospital (n=60)	Health center (n=96)	Dispensary (n=154)
At least 1 trained provider	**48.3**	**21.9**	**6.5**
IP materials			
Bucket with lid for chlorine	90.0	84.4	64.3
Bucket for high-level disinfectant	88.3	67.7	47.4
Chlorine powder	88.3	60.4	50.6
Puncture-resistant container	86.7	65.6	70.8
All 4 IP elements available	71.7	33.3	20.1
PAC equipment and supplies			
Suction machine (manual)	78.3	68.8	24.7
Suction machine (electric)	86.7	14.6	7.8
Sharp curettes	85.0	32.3	12.3
Dilator	81.7	32.3	14.3
Dilator and curettes	78.3	27.1	11.7
Necessary drugs			
Lidocaine	90.0	88.5	85.7

Source: Facility audit 2004–2005

PAC Training Capacity

Few PAC providers had received in-service training in these services. As seen in Figure 3, 29% had been trained in manual vacuum aspiration (MVA), and 17% had received that training more than two years before. A little less than one-third (29%) of PAC providers had received in-service training in curettage.[14] PAC providers expressed interest in further training in MVA (73%), curettage (38%), and counseling of postabortion clients (53%).

Figure 3. Percentage of providers who received in-service training in MVA and currettage, by timing (n=167)



Source: Provider interview 2005

According to Table 11, providers cited lack of available transport and distance to facilities as the most common barriers to women's timely access to PAC services (59% and 50%, respectively). Other barriers included clients' lack of money for transport, competing emergencies at the facility, and the stigma of abortion and its criminalization.

[14] The general term "curettage" was used in the data collection instruments because it includes both dilation and curettage and sharp curettage procedures.

Table 11. Percentage of providers reporting specific barriers to women's access to PAC services

Barriers	Total (n=167)
Lack of available transport	58.7
Distance to facility	50.3
Lack of money for transport	31.1
Competing emergencies	26.9
Fear of stigma or criminalization	23.4
Need to register for services and wait on line like other clients	19.2

Source: Provider interview 2005

Table 12. Percentage of providers reporting specific supervisory components, by facility type

Supervisory component	Hospital (n=12)	Health center (n=201)	Dispensary (n=268)	Total (n=681)
Heard of facilitative supportive supervision	40.6	39.3	29.5	35.8
On-site supervisor	**88.7**	**77.1**	**64.6**	**75.8**
Checks supplies	17.9	15.4	21.3	18.5
Checks IP practices	3.3	3.5	2.2	2.9
Reviews client records	19.3	17.4	19.0	18.6
Observes consultations	30.2	20.9	16.4	22.0
Speaks with clients	9.9	9.0	7.8	8.8
Provides feedback	43.4	38.3	29.1	36.3
Updates provider with important information/knowledge	29.2	23.4	20.1	23.9
Discusses provider's roles and responsibilities	25.9	26.4	25.4	25.8
Does nothing	4.7	4.5	1.9	3.5
Off-site supervisor	**50.5**	**74.6**	**76.1**	**67.7**
Checks supplies	26.4	39.8	47.4	38.6
Checks IP practices	10.8	13.9	13.4	12.8
Reviews client records	28.8	42.8	45.5	39.5
Gathers service statistics	15.6	27.9	19.8	20.9
Observes consultations	12.7	19.9	16.4	16.3
Speaks with clients	3.3	2.0	7.1	4.4
Provides feedback	20.8	26.9	32.8	27.3
Updates provider with important information/knowledge	7.1	11.9	11.6	10.3
Discusses provider's roles and responsibilities	8.5	17.4	22.0	16.4
Does nothing	0.5	0.0	0.4	0.3
Clarity in provider's role/job				
Has written job description	78.3	65.7	60.1	67.4
Received formal appraisal	46.2	56.7	49.3	50.5
Received written/verbal appraisal in past 3 months	30.7	37.8	34.0	34.1

Source: Provider interview 2005

Supervision and Management

Providers' overall performance is based on five factors: job expectations, performance feedback, physical environment and tools, motivation, and knowledge and skills to do the job (ACQUIRE Project, 2005). Training addresses some but not all of these factors; supervision and support from within the service-delivery system are required to address the other factors. Facilitative supervision is an approach to supervision that emphasizes mentoring, joint problem-solving, and two-way communication between the supervisors and those being supervised. In Tanzania, facilitative supervision is primarily conducted on a quarterly basis by the District Council Health Management Teams or Reproductive Health Management Teams at all health facilities in the teams' respective districts.

Overall, 76% of all providers reported having an on-site supervisor, and 68% reported that an off-site supervisor made a supervision visit to the facility within the past three months (and 50% reported having both, data not shown in table).

The key finding on supervision was that although supervision exists at the majority of sites, each component of supervision was reported by fewer than one-half of providers (see Table 12, page 19). When comparing on-site and off-site supervisors, higher proportions of providers reported that on-site supervisors provide performance feedback and discuss the providers' roles and responsibilities (36% and 26%, respectively) than do off-site supervisors (27% and 16%, respectively). On the other hand, providers were more likely to report that off-site supervisors check supplies (39%) and review client records (40%) than they were to say that on-site supervisors do so (19% for each component). Moreover, relatively low proportions of providers reported that either off-site or on-site supervisors routinely observe consultations (16% and 22%, respectively). Finally, relatively low proportions of providers stated that on-site and off-site supervisors reviewed IP practices (3% and 13%, respectively), and spoke with clients (9% and 4%, respectively). Information on facilities' management structure is available in Table C4 in Appendix C.

Objective 2. Quality: To Benchmark the Current Situation with Respect to the Quality of Care Offered at FP Facilities

Data collected to meet this objective include information from providers on their knowledge and attitudes and information on provider practices from observations of client-provider interactions. To assess knowledge, providers were asked what they do when offering FP services. When possible, data are presented that address the six-element framework used to understand quality of care in FP/FH services (i.e., choice of method, information given to clients, technical competence, interpersonal relations, follow-up and continuity mechanisms, and appropriate constellation of methods) (Bruce 1990).

Provider Knowledge

So that providers can give comprehensive and accurate information to clients, counseling should cover the following elements: knowledge of warning signs with method use, when to return for a follow-up appointment, and duration of the method's effectiveness. When accurately conveyed, this information may help reduce discontinuation rates. Providers were asked open-ended questions without probing and were requested to list the warning signs for each method.

Temporary methods

According to Table 13, providers demonstrated varying ability to recall warning signs for each FP method. High proportions of providers were able to recall warning signs like abnormal bleeding for

the IUCD (81%) or severe headaches for the pill (82%). Equally important warning signs that may nonetheless rarely occur are also key elements to be communicated, explained, and reviewed with potential clients. Sixteen percent of IUCD providers spontaneously reported a missed period as a warning sign and 34% of Norplant implant providers stated that pus or bleeding from the incision site was a warning sign.

Table 13. Among providers of specific methods, percentage with knowledge of method's warning signs

Warning sign	(%)
Pill	**(n=532)**
Severe headaches	81.6
Severe, constant pain in abdomen, chest, or legs	55.1
Brief loss of vision, seeing flashing lights or zigzag lines	23.9
Brief trouble moving arm or leg	8.3
Jaundice	3.4
Brief trouble speaking	1.1
All warning signs	**0.0**
Injectable	**(n=529)**
Heavy bleeding	95.3
Severe headaches	65.8
Jaundice	2.8
All warning signs	**2.3**
IUCD	**(n=129)**
Unexplained/abnormal bleeding	80.6
Lower abdominal pain	72.1
Missing strings/feeling the IUCD at the cervix	68.2
Abnormal vaginal discharge	59.7
Pain during intercourse	16.3
Missed period	16.3
Missed period with abdominal pain	11.6
Fever	7.8
All warning signs	**0.0**
Norplant implant	**(n=74)**
Heavy vaginal bleeding	61.5
Migraine headaches	35.3
Pus/bleeding at incision site	34.0
Pain at insertion site	28.2
Severe lower abdominal pain	19.2
Expulsion of implants	11.5
Delayed period after long interval of regular periods	8.3
All warning signs	**0.0**

Source: Provider interview 2005

Providers exhibited high levels of knowledge about the duration of effectiveness of the IUCD (74%) and Norplant implants (99%, see Tables C5 and C6 in Appendix C). An important component of providing the IUCD is conducting a bimanual pelvic exam before inserting the device. Few providers who offer the IUCD were able to spontaneously recall the steps and things to

check for when conducting the exam: One-half (50%) reported that they confirm the position of the uterus, and fewer than half (47%) reported that they verify the size of the uterus (Table 14).

Table 14. Percentage of providers who reported taking the following steps during bimanual pelvic exams

Bimanual exam steps	IUCD providers (n=129)	All (n=586)
Position of uterus	49.6	26.1
Enlargement of uterus	46.5	25.6
Tenderness in adnexa	47.3	22.2
Cervical tenderness	40.3	18.4
Discharge from Skene's ducts	22.5	12.3
Swelling or tenderness of Bartholin's glands	19.4	9.9
All steps	**0.8**	**0.2**

Source: Provider interview 2005

Permanent methods

Informed choice and informed consent are critical components to ensure that a client understands the medical procedure being proposed to them, knows of other FP options, and agrees to receive the proposed care. With regard to sterilization, clients are able to make an informed and voluntary choice if they understand the following information (EngenderHealth, 2003):

- Temporary contraceptive methods are available.
- Sterilization is a surgical procedure.
- Certain risks, as well as benefits, are associated with the procedure and both should be understood.
- If successful, the procedure is permanent and will prevent the client from ever having any more children.
- The procedure will not protect against STIs and HIV.[15]
- The client can decide against having the procedure without losing the right to medical, health, or other services or benefits.

The results of this study indicate that providers do not have a working knowledge of informed choice and consent issues related to sterilization procedures. Tubal ligation providers indicated a better knowledge of protocols for informed consent than vasectomy providers. Ideally, all health workers who counsel FP clients should be able to accurately convey these issues, since the counselor and clinical provider may not be the same person.

Among tubal ligation providers, 29% spontaneously reported that a client may change her mind before the tubal ligation procedure without any penalty, and 21% spontaneously reported that temporary methods are available (Table 15). In terms of vasectomy (Table 16), the study captured only eight providers who personally provide vasectomy services. Of the eight providers, one reported that a client must sign an informed consent statement, and one provider reported that other FP methods must be used during the first three months after the procedure.

[15] Data on this element of informed consent were not collected in this study.

Table 15. Percentage of providers who knew components of informed choice and consent procedures for tubal ligation clients

Component	Tubal ligation providers (n=24)	All (n=586)
Method is permanent	95.8	68.1
Is a surgical procedure	70.8	29.9
A consent form must be signed	41.7	9.2
You can change your mind before procedure without any penalty	29.2	6.1
Temporary methods are available	20.8	3.1
Possible side effects	20.8	8.2
There is a possibility of failure	16.7	7.0
Warning signs	0.0	1.4
All components	**0.0**	**0.0**

Source: Provider interview 2005

Table 16. Number of vasectomy providers and percentage of all providers who knew components of informed choice and consent procedures for vasectomy clients

Component	Vasectomy providers (n=8)	All (n=586)
Method is permanent	(7)	49.8
Is a surgical procedure	(4)	22.0
You can change your mind before procedure without any penalty	(4)	3.1
Temporary methods are available	(1)	2.0
There is a possibility of failure	(2)	2.0
Possible side effects	(1)	6.0
Warning signs	(1)	0.7
Other FP method should be used for first 3 months after procedure	(1)	7.3
A consent form must be signed	(1)	4.6
All components	**(0)**	**0.0**

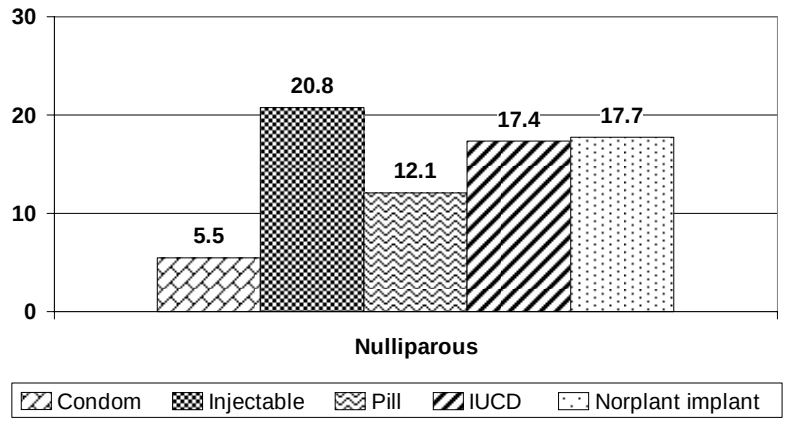
Source: Provider interview 2005

Provider Attitudes

Soon after the International Conference on Population and Development in Cairo in 1994, Tanzania removed all age, parity, and partner consent requirements for FP services. In 1997, new national FP guidelines were issued by the MOH stating the policy changes. Although these guidelines have existed for nearly a decade, this baseline study shows that provider attitudes and biases toward potential users, which restrict clients' access to FP, still exist. In addition to the MOH guidelines, the World Health Organization's (WHO) Medical Eligibility Criteria also suggest that no age restrictions are necessary for the provision of short-acting and long-acting methods—i.e., condoms, pills, injectables, Norplant implants, and the IUCD (WHO, 2004).

The baseline study assessed several aspects of provider attitudes related to conditions of parity, age, and partner consent. A small but important proportion of providers reported that a client must have a minimum number of children to receive FP methods. Twenty-one percent of all providers reported

Figure 4. Percentage of providers who reported that nulliparous women should not receive FP



Source: Provider interview 2005

that nulliparous women should not receive injectables, and 17% and 18% reported that such women should not get the IUCD and Norplant implants, respectively (Figure 4). According to the current age-structure of Tanzania's mainland population, children under age 15 account for 44% of all Tanzanians, and one-half of this group are girls (United Republic of Tanzania, 2002). In upcoming years, this age-group will move into its reproductive years, and with 63% of 20–49-year-olds reporting their first intercourse by age 18 (NBS & ORC Macro, 2005), FP programs should be prepared to meet the needs of unmarried adolescents and young married women who choose to delay their first birth.

Table 17 shows the proportion of providers who reported no minimum or maximum ages for the provision of FP methods.[16] Overall, about 42% to 57% of providers reported no minimum age requirements for providing specific FP methods. For instance, 42% reported that clients did not have to reach a minimum age to receive a tubal ligation and 50% reported a similar lack of minimum age requirement for the IUCD. In terms of a maximum age, 85% of providers reported no age limit for clients to receive condoms and 71% reported none for receiving vasectomies.

Table 17. Percentage of providers who reported no minimum or maximum age requirements for FP clients

Method	No minimum age (n=586)	No maximum age (n=586)
Condoms	56.7	85.2
Pills	45.2	44.7
Injectable	43.9	47.1
Norplant implant	52.2	52.6
IUCD	49.7	51.5
Tubal ligation	41.8	53.4
Vasectomy	45.6	71.2

Source: Provider interview 2005

Partner consent requirements also affect clients' access to FP. According to the baseline findings presented in Table 18, close to one in three providers reported that consent from a client's partner was required for the IUCD and Norplant implants. A smaller but still important proportion of providers said that a partner's consent was needed for the pill (25%) and injectables (28%). Even though the 1997 national FP guidelines removed all restrictions associated with partner consent, age, and parity, these findings suggest a delay in the adoption of this policy and highlight providers' bias, leading to poor access to FP methods.

[16] Data were collected on exact maximum and minimum client ages at which providers would refuse to offer a method. The findings presented in Table 17 may be an underestimate, because some providers reported ages that were inconsistent. For example, 8% of providers reported that they would not provide tubal ligation to women younger than ages 9, 10, 11, 12, 13, 14, or 15.

Providers were also asked which methods would be recommended to clients who have HIV/AIDS, who have just been treated for an abortion complication, and who are postpartum (i.e., 0–48 hours after delivery). According to Table 19, providers require more information to assist them in recommending FP methods to clients in these special circumstances. For instance, only 6% of providers reported that they would recommend the IUCD to HIV-positive clients and only 16% would recommend tubal ligation to a woman who is postpartum. Although many FP methods are safe and effective for most clients, these data suggest that providers may not necessarily have current information, especially regarding medical eligibility criteria for contraceptive use.

Table 18. Percentage of providers who reported that a partner's consent was required for an FP method

Method	Total (n=586)
Tubal ligation	67.7
Vasectomy	62.3
Norplant implants	30.4
IUCD	29.7
Injectables	28.2
Pills	25.1

Source: Provider interview 2005

Table 19. Percentage of providers who would recommend specific FP methods to HIV-positive clients, PAC clients, and postpartum clients

Method	HIV-positive clients (n=586)	PAC clients (n=586)	Postpartum clients (within 48 hours of delivery) (n=586)
Condom	82.9	41.5	30.0
Pill	13.5	49.0	24.1
Injectable	22.2	39.4	20.6
IUCD	5.6	12.6	13.8
Norplant implant	10.1	14.5	6.7
Tubal ligation	16.9	5.8	15.9
Vasectomy	13.7	—	—
None	1.7	5.6	23.0

Source: Provider interview 2005

Provider Practices

The baseline study contains data from observations of providers' counseling sessions with FP clients (collected in the client-provider checklist) and from interviews with those same clients as they exited the facility. To assess the extent to which counseling is being tailored to different clients' needs, the units of analysis in this section are clients, disaggregated by their reasons for coming to the facility. The client types are: new clients who have never used FP; returning clients who came for resupply of their method or routine follow-up; and returning clients who have concerns about their method, as described in Shelton, Kumar, and Kim (2005).

Counseling before method selection

Provider assessment of clients

The data collectors ascertained clients' reasons for coming to the facility by observing providers' assessments of clients' needs and reproductive histories. The baseline findings (which are shown in

Table 20. Percentage of client-provider interactions in which providers asked about clients' reproductive intentions, by client type

Reproductive intentions	New clients (n=278)	Returning clients for resupply (n=367)	Returning clients with concerns (n=109)	Total[1] (n=754)
Desire for more children	41.4	23.7	32.1	31.4
Desired timing of next birth	45.3	19.6	26.6	30.1
At least one question asked	55.0	28.0	35.5	39.0

Source: Client-provider interaction checklist 2005
[1]Only female clients were included in this analysis.

Table 20) demonstrate that, overall, providers ask clients about their reproductive intentions inconsistently. Providers asked clients about their desire for more children or the desired timing of their next birth in 39% of all client-provider interactions.

Providers were observed to obtain reproductive and medical histories most frequently from new clients (Table 21 and Table 22). The data also indicate that providers appropriately obtained these histories more often from clients with a method concern than from clients returning for resupply. In addition, providers were observed to ask clients about their last menstrual period and irregularities

Table 21. Percentage of client-provider interactions in which providers asked about clients' reproductive history[1]

Reproductive history element	New clients (n=278)	Returning clients for resupply (n=367)	Returning clients with concerns (n=109)	Total[1] (n=754)
Age of client	76.6	27.2	40.4	47.3
No. of living children	80.9	33.0	43.1	52.1
Marital status	47.8	13.4	29.4	28.4
Last delivery date/age of youngest child	82.7	34.3	39.4	52.9
History of pregnancy complications	52.5	17.7	34.9	33.0
Last menstrual period	83.5	69.5	73.4	75.2
Regularity of menstrual cycle	76.3	50.7	61.5	61.7
All questions asked	**23.4**	**4.1**	**8.3**	**11.8**

Source: Client-provider interaction checklist 2005
[1]Only female clients were included in this analysis.

Table 22. Percentage of client-provider interactions in which providers asked about clients' medical history[1]

Medical history element	New clients (n=278)	Returning clients for resupply (n=367)	Returning clients with concerns (n=109)	Total[1] (n=754)
Breastfeeding status	54.3	19.3	28.4	33.6
Heart disease	58.6	13.1	23.9	31.4
Diabetes	56.8	9.5	23.9	29.0
Hypertension	46.0	13.1	24.8	26.9
Liver/jaundice problem	48.6	9.5	14.7	24.7
Breast cancer	19.8	3.5	8.3	10.2
Smoking habits	4.0	0.3	1.8	1.0
At least one question asked	79.1	27.5	50.5	49.9

Source: Client-provider interaction checklist 2005
[1]Only female clients were included in this analysis.

in their menstrual cycle. Among returning clients for resupply, providers assessed the date of clients' last period in 70% of client-provider interactions and their menstrual regularity in 51% of client-provider interactions, which suggests that providers are assessing whether clients are experiencing side effects with their method.

Provider assurance of method choice

Method choice is one of the key components of the quality of care framework for RH/FP services (Bruce, 1990). Table 23 shows the average number of methods discussed and the proportion of client-provider interactions in which providers discussed more than one method. In most client-provider interactions with new clients, providers discussed more than one FP method. However, in 17% of client-provider interactions with new clients, providers discussed only one method. Although 73% of new clients arrive at the facility with a desired method in mind (Table 29, page 34), all available methods should nonetheless be discussed with all new clients to ensure that they are presented with a choice and are knowledgeable about their alternatives (Shelton, Kumar, & Kim, 2005).

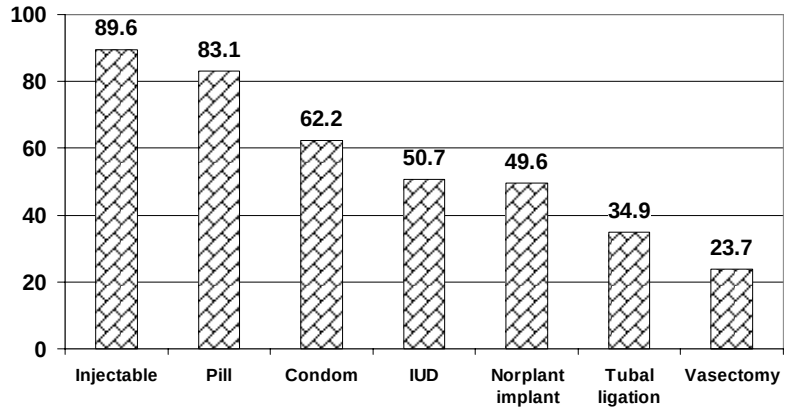
Table 23. Indicators of FP method discussions during client-provider interactions

Indicator	New clients (n=278)	Returning clients for resupply (n=368)	Returning clients with concerns (n=110)	Total (n=756)
Average no. of methods discussed	3.9	1.6	2.9	2.6
% of client-provider interactions in which provider discussed more than one method	83.1	31.0	53.6	53.4

Source: Client-provider interaction checklist 2005

Figure 5 shows that new clients were informed more frequently about short-acting than about long-acting methods. For example, while short-acting methods such as the injectable and the pill were discussed in 83–90% of consultations with new clients, the proportions of client-provider interactions with discussions of LAPMs ranged from 24% for vasectomy to 51% for the IUCD. Sixty-two percent of client-provider interactions included discussion of condoms as an FP method.

Figure 5. Percentage of new client observations in which FP methods were discussed, by method (n=278)



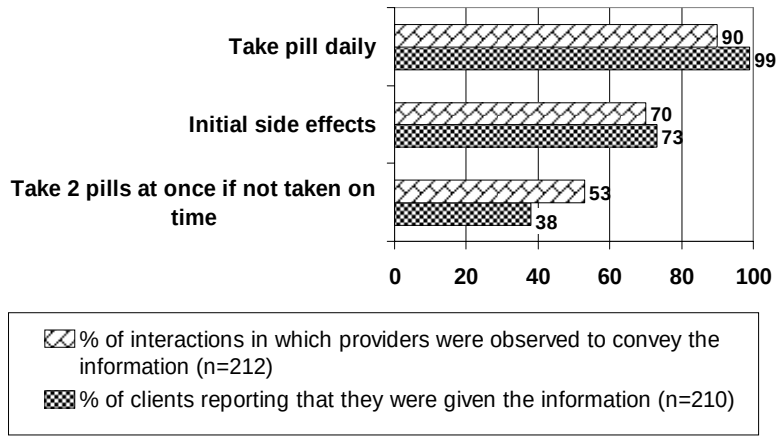
Source: Client-provider interaction 2005

Counseling on method selected by client[17]

The Pill

Figure 6 shows the proportion of all client-provider interactions involving pill clients in which providers conveyed specific information about the pill; this analysis is based on clients' recall of that information. General information about how to use the pill clearly is being conveyed to clients. However, though providers were observed telling clients to take two pills at once if they forget a dose in 53% of client-provider interactions, the exit interviews showed that only 38% of clients left the facility with this knowledge. When these data are analyzed by client type (see Table C7 in Appendix C), returning pill clients with concerns about their method were more likely to know to take two pills if they forget to take one on time (56%) than were new clients (37%) or clients returning for re-supply (33%).

Figure 6. What providers told clients about the pill



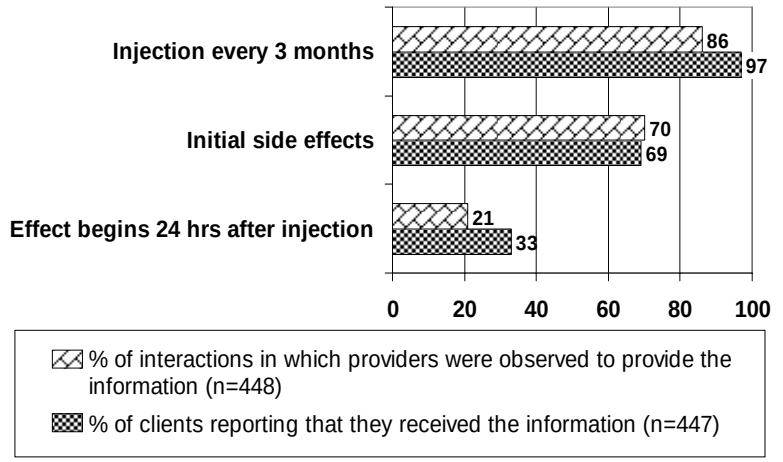
Source: Client-provider interaction 2005; client exit interview 2005

Injectables

According to Figure 7, higher proportions of injectable clients knew specific facts about their method than were observed to receive that information during the provider-client consultations. For example, in 21% of client-provider interactions, providers were observed to tell clients that the method's effectiveness begins 24 hours after injection; 33% of clients, however, reported having this knowledge.

This finding, in addition to other findings in this section, may have several causes, including courtesy bias and observation bias.

Figure 7. What providers told clients about injectables



Source: Client-provider interaction 2005; client exit interview 2005

[17] Data presented in this section are limited to pills and injectables, the method choices for the vast majority of clients in this study (87%); only 5% chose LAPMs and 3% condoms.

Follow-up and continuity mechanisms

Once a method is accepted, ensuring follow-up and continuity of care is an important component of the quality of care framework (Bruce, 1990). The study findings indicate that providers are discussing follow-up visits and side effects with new clients. According to Table 24, the chosen method's side effects were discussed in 83% of client-provider interactions with new clients and its warning signs were discussed in 72%.

Table 24. Percentage of client-provider interactions in which providers discussed important issues related to client's chosen method or used visual aids

Element	New clients (n=278)	Returning clients for resupply (n=368)	Returning clients with concerns (n=110)	Total (n=756)
Discussed need for return visit	70.5	65.8	70.0	68.1
Discussed side effects of method	83.1	59.0	70.9	69.6
Explained warning signs of method	71.9	44.3	59.1	56.6
Talked about ways to negotiate with partner about method	29.9	8.7	20.9	18.3
Used visual aids	74.8	42.9	60.9	57.3

Source: Client-provider interaction checklist 2005

Adherence to IP procedures

Table 25 shows the proportion of client-provider interactions in which a provider followed the recommended steps when providing the injectable, as cited in EngenderHealth's infection prevention manual (EngenderHealth, 2000). In fewer than 1% of client-provider interactions (0.7%) providers followed all recommended steps. In 43% of observed client-provider interactions, the injection site was cleaned with alcohol and air-dried; in 21%, providers washed their hands with soap before putting on gloves; in 15%, the top of the injectable vial was cleaned with antiseptic; and in 5%, sterile gloves were used.

Table 25. Percentage of providers who followed recommended IP steps for injectable provision

Recommended step	% of injectable providers observed to follow IP step (n=151)
Reconfirm method choice	94.7
Wash hands with soap before putting on gloves	21.1
Put on gloves taken from box, package, or tray	4.6
Clean top of injectable vial with antiseptic	15.2
Clean site with alcohol and air-dry before injection	43.0
Draw dose completely	98.7
Allow dose to self-disperse instead of massaging injection site	90.1
Dispose sharps in puncture resistant container	94.7
Provide client with card indicating next injection date	98.7
All recommended steps followed	**0.7**

Source: Client-provider interaction checklist 2005

Counseling environment

FP counseling is an interactive process; clients should feel comfortable asking questions and expressing concerns. Therefore, providers should assure that confidentiality and privacy are maintained. The baseline study revealed that in 56% of all client-provider interactions observed (Table 26), providers told clients that their personal information would remain confidential, and auditory and visual privacy were assured.

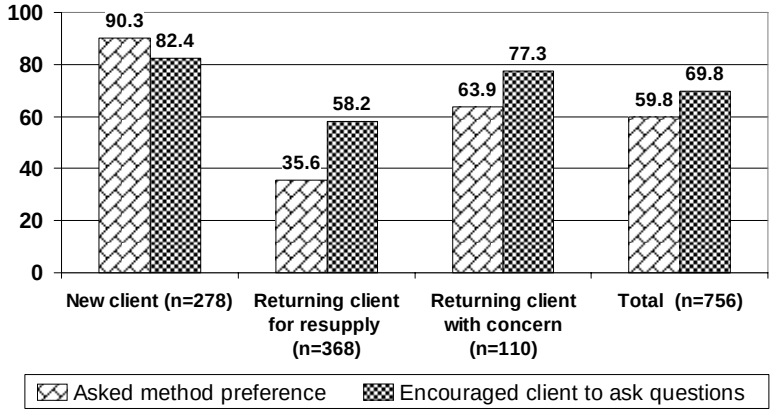
Table 26. Percentage of client-provider interactions in which providers assured clients' confidentiality and privacy

Element	Total (n=756)
Confidentiality assured	62.2
Audio privacy assured	85.1
Visual privacy assured	83.6
All three elements	**55.7**

Source: Client-provider interaction checklist 2005

Previous research has shown that if clients receive their chosen FP method, they are less likely to discontinue use (Pariani et al, 1991). Thus, the entities that provide services, such as the MOH, nongovernmental organizations, and faith-based organizations, seek to ensure that client choice and communication are fostered in provider-client consultations. This study measured the proportion of client-provider interactions in which providers were observed to ask clients about their preferred method and encourage them to ask questions. According to Figure 8, the majority of new clients (90%) were asked which method they preferred. Furthermore, 84% of all clients (data not shown in figure) reported that they received or were given a referral for their first method choice. In 70% of all client-provider interactions, providers were observed encouraging their clients to ask questions.

Figure 8. Percentage of interactions in which providers asked about clients' method preferences and encouraged clients to ask questions



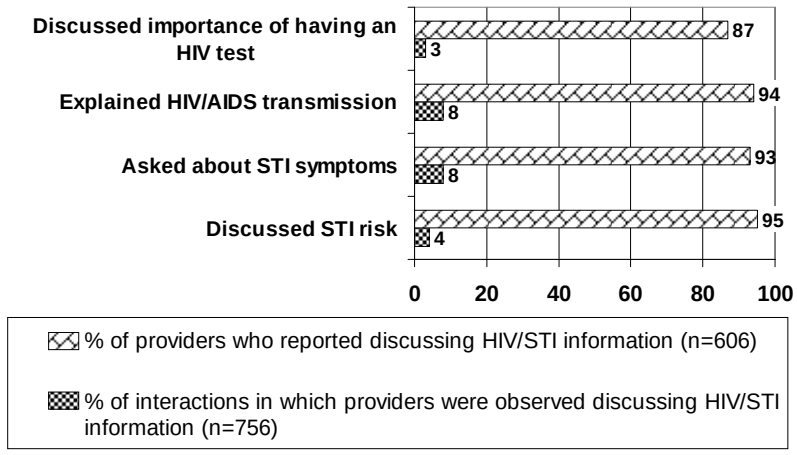
Source: Client-provider interaction 2005

HIV/STI Integration with FP Services

The integration of HIV/STI counseling and information into FP services maximizes opportunities for information dissemination and is widely recommended. The baseline study documents that FP visits are rarely used as an opportunity to assess STI risk, communicate messages about HIV prevention, or discuss the role of condoms in preventing infection. Ideally, providers should attempt to integrate STI and HIV prevention into FP counseling sessions with every client. Providers were asked the STI and HIV information that they routinely convey to their FP clients. According to

Figure 9, providers seem to understand the importance of integration, as the majority of providers reported that they routinely discuss STI risk (95%), ask about STI symptoms (93%), explain transmission of HIV/AIDS (94%), and discuss the importance of getting tested (87%) with their FP clients.

Figure 9. Percentage of providers who integrated HIV/STI information into FP visits



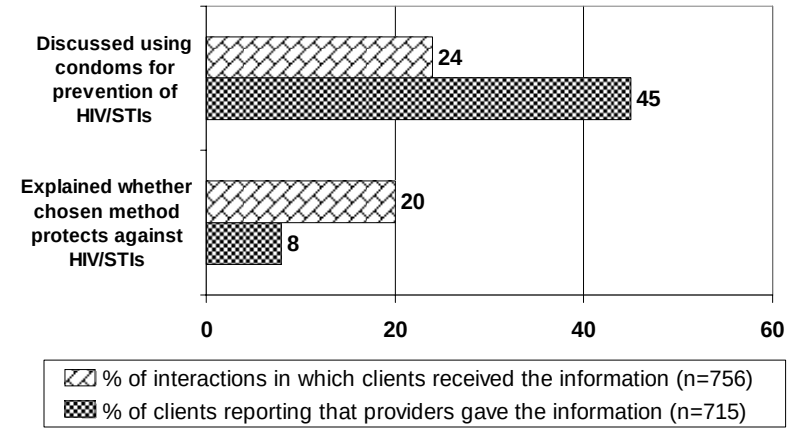
Source: Client-provider interaction 2005; client exit interview 2005

However, these data diverge from the client-provider interaction results, in which observers recorded that providers are not discussing these issues with their FP clients. Providers were observed to discuss these issues in fewer than one in 10 client-provider interactions, as shown again in Figure 9. Based on these findings, there are significant differences between provider knowledge and their actual practice of HIV/STI and FP integration.

Figure 10 shows the percentage of all client-provider interactions in which providers informed their clients about whether their chosen method protects against HIV/STIs and the role of condoms in protecting against HIV/STIs. Dual protection is defined as the use of condoms to prevent both HIV/STI transmission and pregnancy. In about one in four client-provider interactions (24%), providers discussed dual protection, and in about one in five (20%) they indicated whether the client's chosen method protects against STIs, including HIV/AIDS.

However, only 8% of clients reported that their provider told them whether their method protects against HIV/STIs. A higher proportion of clients (45%) reported that their provider explained the role of condoms in protecting against HIV and other STIs. This finding may be due to courtesy bias in combination with clients' preexisting knowledge about the condom. According to findings from the 2003–2004 Tanzania HIV/AIDS Indicator Survey, 68% of women know that the use of the condom in every sexual interaction reduces HIV transmission (Tanzania Commission for

Figure 10. Percentage of providers who informed clients of HIV/STI risk



Source: Client-provider interaction 2005; client exit interview 2005

Table 27. Percentage and numbers of PAC providers who discussed specific topics with clients before discharge

Topic	Doctors (n=54)	Clinical officers and nurses (n=104)	Other (n=9)	Total (n=167)
Where to go in the event of a complication	35.2	38.5	(1)	35.9
Postprocedure signs needing attention	20.4	18.3	(2)	19.2
Postprocedure care	16.7	17.3	(1)	16.8
When and where to go for follow-up visit	33.3	33.7	(3)	33.5

Source: Provider interview 2005

AIDS, NBS, & ORC Macro, 2005). The overall findings on the integration of HIV/STI prevention into existing FP services highlights that many opportunities go unused. Research has shown that any contact with a FP provider is an opportunity to discuss the risk and prevention of HIV/STIs.

Table 28. Percentage and numbers of PAC providers offering services

Service indicator	Doctors (n=54)	Clinical officers and nurses (n=104)	Other (n=9)	Total (n=167)
Type of PAC procedure				
MVA	59.3	36.5	(3)	43.7
Curettage	74.1	59.6	(6)	64.7
Frequency of PAC procedures				
Daily	18.5	10.6	0	12.6
Weekly	13.0	16.3	(1)	15.0
Monthly	31.5	24.0	(1)	25.7
Services PAC clients are referred for				
FP counseling and services	16.7	33.7	(3)	28.1
STI/HIV prevention counseling	3.7	3.8	(0)	3.6
Voluntary HIV counseling and testing	3.7	7.7	(1)	6.6
STI diagnosis and management	1.9	11.5	(1)	8.4
Information provided (multiple responses allowed, no prompting)				
Fertility may return in 11 days	7.4	5.8	0	6.0
Specific FP methods	44.4	57.7	(6)	53.9
RH goals	31.5	26.0	(4)	28.7
If STI is discovered during treatment				
Treat client's STI	92.6	82.7	(6)	85.0
Refer client elsewhere for treatment	7.4	17.3	(2)	14.4

Source: Provider interview 2005

PAC Quality

Information on the quality of PAC services and their integration into FP services was gathered through the provider interviews.[18] PAC clients were not observed or interviewed.

In their interviews, providers were asked what type of information they provide to women treated for postabortion complications before discharge. Providers were not prompted with response categories. According to Table 27, 34% of all providers reported that they tell clients when and where to return for postabortion follow-up visits; 36% provide information on what to do in case of a complication; 19% discuss postprocedure warning signs that may require attention; and 17% discuss postprocedure care. The findings were similar among all cadres of providers.

Providers knew about the importance of offering FP counseling to PAC clients. According to Table 28, 54% of providers spontaneously stated that they discuss FP methods with their PAC clients, and when asked about the content of counseling, 6% said that they tell clients that fertility can return as soon as 11 days after a PAC procedure.

Objective 3. Client Perspectives: To Benchmark Clients' Experiences and Perceptions of the Quality of FP Services

While leaving the facility, clients were interviewed about their FP consultation. Data were gathered on clients' perceptions and overall satisfaction with the FP services, including how they were treated by staff and whether they felt comfortable asking questions during their consultation. Data were also collected on the information sources of FP methods and facilities' services, along with reasons for switching FP methods.

Sources of Information about Services and Methods

According to Table 29 (page 34), the majority of all clients (61%) reported that they had made the decision to come to the facility on their own rather than in consultation with their partner (27%). Clients were asked how they heard of the facilities' services and multiple responses were allowed. The sources most commonly mentioned were service providers (49%), followed by friends (30%), and neighbors (20%). Smaller proportions of clients heard about the services offered at the facility through the media or promotional materials—i.e., television (1%), radio (3%), or brochures (7%).

The majority of new clients (73%) arrived at the facility with a specific method in mind. Among these new clients, many heard about their preferred method through friends (28%), neighbors (14%), or family members (12%). Few cited the radio or brochures (4% each) as their source of information. It is interesting to note that according to the client exit interviews, outreach efforts were not reaching clients with information on FP methods (fewer than 1% of all clients learned about their preferred method through an outreach worker).

[18] In Tanzania, PAC refers to the medical treatment of postabortion complications. The term comprehensive PAC refers to the addition of FP counseling, and as such is equivalent to the international definition of PAC, which has five components: (1) community and service provider partnerships; (2) comprehensive counseling; (3) treatment of complications; (4) contraceptive and FP counseling and services; and (5) provision of RH and other services.

Table 29. Characteristics of clients' FP visit, including sources of information about services and FP methods

Characteristic	New clients (n=278)	Returning clients for resupply (n=369)	Returning clients with concerns (n=110)	Total (n=757)
Person making decision to come to facility (%)				
Client alone	57.2	64.5	58.2	60.9
Partner	6.8	4.3	4.5	5.3
Client and partner	29.9	22.2	33.6	26.7
Invited by service provider	2.9	3.0	0.9	2.6
Other	3.2	6.0	2.7	4.5
Ever had partner present at FP consultation (%)	**15.5**	**23.0**	**25.5**	**20.6**
% of unaccompanied clients who would consider inviting partner in future (%)	**53.6 (n=235)**	**51.8 (n=284)**	**48.8 (n=82)**	**52.1 (n=601)**
Sources of information about facility's services (multiple responses allowed) (%)				
Partner	4.0	3.8	4.5	4.0
Family member	17.3	14.4	19.1	16.1
Friend	37.1	26.6	21.8	29.7
Neighbor	17.3	21.1	20.0	19.6
TV	0.7	1.1	0.9	0.9
Radio	2.2	2.7	6.4	3.0
Brochure	5.4	7.0	9.1	6.7
Provider	47.1	50.4	50.9	49.3
Outreach worker	2.9	1.6	2.7	2.2
Considered switching methods before facility visit (%)		**10.3**[1]	**47.3**	**18.8 (n=479)**
Had a method in mind before arriving at facility (%)	**72.7**	**10.3**	**44.5**	**38.2 (n=757)**
Source of information about method client had in mind (%)				
Partner	2.9	0.3	0.0	1.2
Family member	12.2	0.5	3.6	5.3
Friend	27.7	1.9	6.4	12.0
Neighbor	13.7	0.8	8.2	6.6
TV	0.4	0.3	1.8	0.5
Radio	4.3	1.1	3.6	2.6
Brochure	4.3	0.5	6.4	2.8
Provider	30.9	7.0	27.3	18.8
Outreach worker	1.1	0.0	0.0	0.4
Provider discussed desired method (%)	**69.1**	**7.9**	**39.1**	**34.9**
Provider discussed additional methods (%)	**61.2**	**5.1**	**28.2**	**29.1**

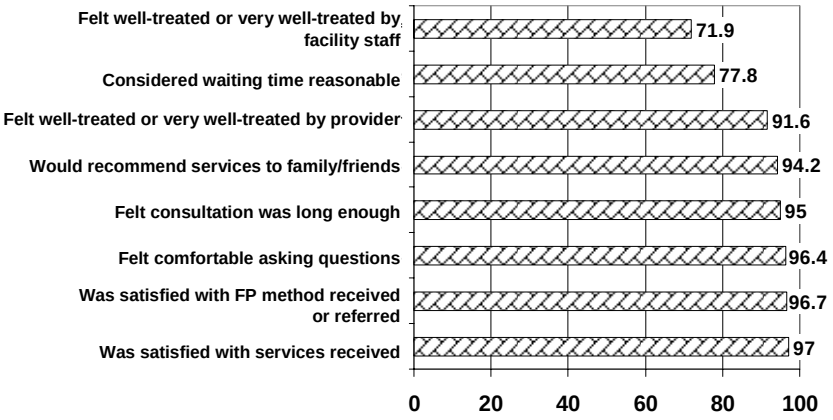
Source: Client exit interview 2005

[1] Among clients returning for resupply, 10% considered switching methods, had a method in mind, and reported their sources of information on that method. However, these clients did not switch to a different method and continued to use their current method.

Client Satisfaction

Overall, the baseline study indicates that clients are satisfied with the services they received.[19] According to Figure 11, more than seven out of 10 clients (72%) said that they had been treated well by facility staff, and about eight in 10 (78%) reported that their waiting time was reasonable. The vast majority of clients (92%) felt they were treated well by their provider, and 94% reported that they would recommend the facility's services to friends or family members. Overall, nearly all clients (97%) were satisfied with the FP services they received.

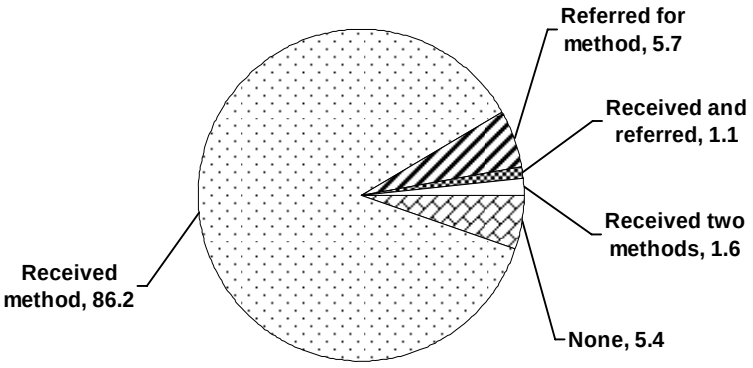
Figure 11. Percentage of clients satisfied with FP services (n=757)



Source: Client exit interview 2005

Figure 12 illustrates the client-reported outcomes of consultations in terms of whether they received a method at the facility or were referred elsewhere for one. Eighty-nine percent of clients reported receiving a method on the day of their visit. Five percent neither received a method nor were referred for one because they came to the facility for a routine follow-up visit. Clients who accepted two methods received condoms in addition to another FP method. Of the eight clients who both received an FP method and were referred to a different facility for another method, five were referred for tubal ligation, two for the IUCD, and one for the pill.

Figure 12. Percentage of clients who received and/or were referred for a service (n=757)

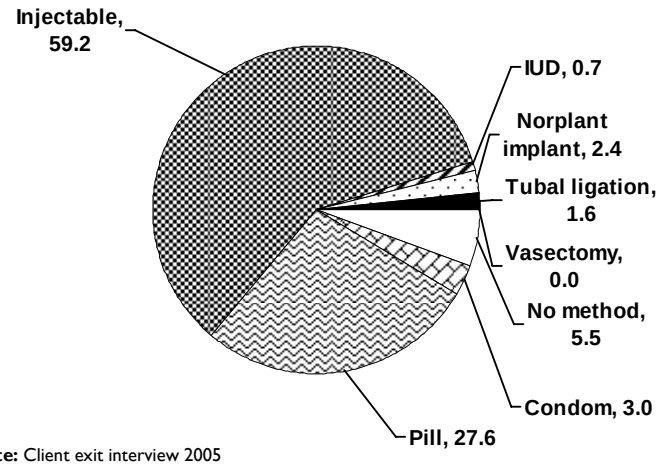


Source: Client exit interview 2005

Clients' method choices are displayed in Figure 13 (page 36). The vast majority (87%) chose short-acting methods, specifically injectables (59%) and the pill (28%). The proportion who selected

[19] However, the validity of these findings may be affected by response bias, as noted in the limitations section. Response bias occurs when respondents are more likely to respond in a way to please the interviewer.

Figure 13. Percentage of all clients accepting FP, by method



Source: Client exit interview 2005

LAPMs was low (5%). Table 30 shows the method selection outcomes among returning clients. Forty-five percent of returning clients who had concerns about their method switched to a new method, while 55% continued with their current method. Among returning clients with concerns who switched methods, one in four (22%) switched because they desired a more effective FP method, and more than one in 10 (14%) did so due to health concerns associated with their current method (Table 31).

Table 30. Percentage distribution of returning clients, by decision about current method

Decision	Returning clients for resupply (n=369)	Returning clients with concerns (n=110)
Continue with current method	90.8	54.5
Switch to new method	8.9	44.5
Stop using FP altogether	0.0	0.9
No response	0.3	0.0

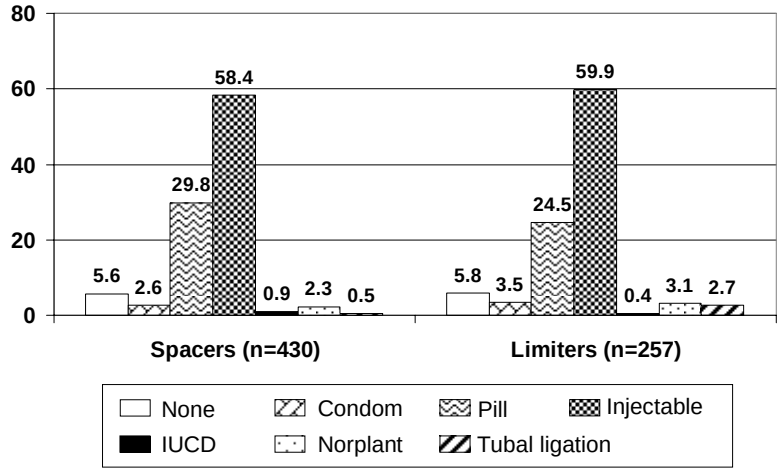
Source: Client exit interview 2005

Table 31. Percentage distribution of returning clients who switched methods, by reason why they switched

Reason	Returning clients for resupply (n=33)	Returning client with concerns (n=49)	Total (n=82)
Side effects of current method	9.1	46.9	31.7
Desire for more effective method	45.5	22.4	31.7
Current method's inconvenience	21.2	4.1	11.0
Health concerns	3.0	14.3	9.8
Heard good things about the method switched to	12.1	2.0	6.1
Heard bad things about the method currently using	0.0	2.0	1.2
Menopause	0.0	2.0	1.2
Method out of stock or unavailable	9.1	2.0	4.9
No response	0.0	4.1	2.4

Source: Client exit interview 2005

Figure 14. Percentage of clients reporting current contraceptive use, by reproductive intention



Source: Client exit interview 2005

Method use by reproductive intentions

Figure 14 compares the FP methods used by women who want to space their next birth by two or more years (spacers) with those used by women who do not want to have any more children (limiters). The majority of limiters (88%) are using short-acting methods, such as the pill or injectables. Women who are using short-acting methods and who do not want any more children are potential candidates for long-acting methods (e.g., the IUCD and Norplant implants) or permanent methods (e.g., sterilization). Limiters' use of short-acting methods is appropriate if it reflects their method choice. However, this finding highlights the need for providers to more closely tailor counseling and services to their clients' reproductive intentions, in a counseling environment that fosters and upholds informed choice.

Conclusions and Recommendations

The baseline study provides a great deal of information on the current state of facility-based RH services. This information will enable the Tanzania National Reproductive and Child Health program to develop appropriate interventions to address the issues identified, in particular the need to:

- Improve access to a wide range of FP methods through a comprehensive approach including training, facility improvements, addressing barriers and biases, and raising awareness of services
- Strengthen the integrated services package so women can obtain services for FP, STIs and HIV/AIDS, and PAC at one facility, or be referred for such services when necessary
- Build the capacity of the health system and of partner organizations to improve supervision, logistics, and other support systems.

Most importantly, the study results will help all of the organizations and individuals involved to build on the successes of previous RH/FP efforts in Tanzania to bring about even greater improvements in the health of the population.

In addition, according to the data collected in the baseline study, the following six recommendations should be considered to improve the quality and availability of FP/FH services in Tanzania.

1. **Train and update knowledge of providers.**
   The baseline study revealed that many service providers have not received in-service training in FP clinical procedures. Such lack of training is a critical barrier to scaling up FP services across the ACQUIRE focus regions. The low levels of provider knowledge and skill need to be addressed, and current training systems need to be strengthened and supported. Trainings and their follow-up should focus on helping trainees quickly put to use the skills they have learned. Contraceptive technology updates are also recommended to refresh providers' skills and knowledge of family planning methods.

2. **Strengthen supervision and management of sites.**
   The findings indicate that supervision systems, both internal and external, are functional. However, the responsibilities of supervisors and how they supervise are not clear. As stated by Huezo and Diaz (1993), in order to meet clients' needs, providers need up-to-date information; training and professional development; good supervision and management support; and adequate infrastructure and supplies. Therefore, the national RH/FP program should support the zonal training centers to further increase the management capacity of the Council Health Management Teams and encourage on-the-job training of supervisors and peers.

3. **Improve awareness of FP through media and public educational materials.**
   Many studies have shown that a comprehensive RH/FP program that includes public information campaigns contributes significantly to increased contraceptive use. For instance, in the early 1990s, the Tanzanian government and several donors made a concerted effort to reduce fertility through the dissemination of public information and educational materials, in addition to increasing the training of providers and ensuring logistical support. As a result, modern contraceptive use increased greatly throughout the decade, especially between 1991 and 1994 (Chen & David, 2003).

One-half of all facilities (50%) do not have FP signs or posters advertising the availability of services. Moreover, the generalized absence of brochures and leaflets affect clients' access to information and their understanding of various FP methods. In addition, very few clients learned of FP methods through media sources. Yet most clients came to the facility with a method in mind (although this study could not determine if clients have correct information about the particular method). This suggests that the dissemination of FP messages through a variety of means should be explored, including through the mass media, community participation and leadership, outreach workers, and informal peer networks. The national RH/FP program should also strengthen linkages between service sites and the communities in which they are located. Linkages could be strengthened by sensitizing and updating community health workers and volunteers to FP and comprehensive PAC issues, and by enlisting their support.

4. **Improve the availability of quality PAC services.**
   The availability of quality PAC services was limited. Clients requiring treatment for postabortion complications may not have immediate access to emergency care, since PAC services are limited primarily to hospitals, and there is a lack of comprehensive and functional referral systems. This is particularly significant since Tanzania's maternal mortality ratio is 529 maternal deaths per 100,000 births, and approximately 30% of these deaths are due to abortion.

   Training and knowledge updates in comprehensive PAC, which incorporates contraceptive counseling and services into such care, are recommended. The national RH/FP program should explore the feasibility and cost to the health system of decentralizing PAC services to lower-level facilities (i.e., health centers and dispensaries). This would require the program to train dispensary staff to provide PAC services. Community-level interventions to improve PAC access and quality should be explored in tandem with facility-level ones, specifically efforts to ensure that clients reach facilities with little to no delay.

5. **Tailor counseling to meet clients' needs.**
   According to the study findings, providers' skills related to their assessment of clients' needs and reasons for coming to the facility could be improved. For example, providers asked new clients about their desire for more children or the desired timing of their next birth in 55% of client-provider interactions. However, as expected, providers were observed to provide more complete information about FP methods (e.g., method side effects, warning signs, when to return for a follow-up visit, etc.) to new clients than to returning clients with a method concern.

6. **Improve integration of HIV/STI services into FP services.**
   This study found that providers rarely used FP visits to assess STI risk, communicate about HIV prevention, or discuss the role of condoms in dual protection, despite high levels of provider knowledge about these issues. Ideally, integration should be achieved during all counseling sessions with clients at all facilities. To provide more integrated RH/FP services, the program needs to develop and strengthen providers' capacity to counsel clients on dual method use, ask about their STI risk, and stress the importance of being tested.

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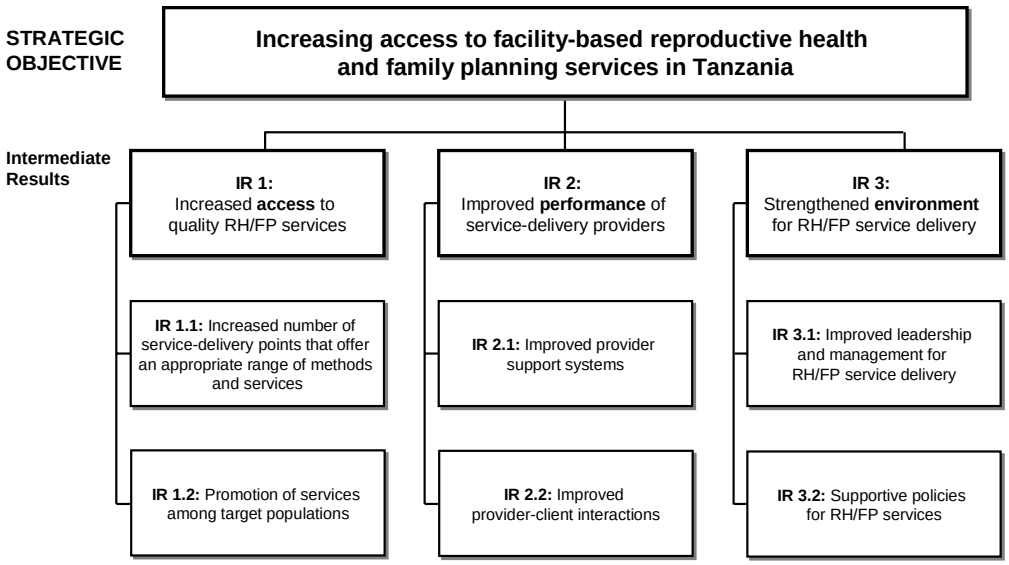
Appendix A

The ACQUIRE Project

The Access, Quality, and Use in Reproductive Health (ACQUIRE) Project is a five-year global Cooperative Agreement supported by the U.S. Agency for International Development (USAID). The project was launched on October 1, 2003, and is managed by EngenderHealth in partnership with the Adventist Development and Relief Agency International (ADRA), CARE, IntraHealth International, Meridian Group International, Inc., the Society for Women and AIDS in Africa (SWAA), and SATELLIFE. ACQUIRE is conducting three baseline studies in focus countries.[20] Tanzania, as one of the largest ACQUIRE countries, is part of this collaborative study.

In Tanzania, the ACQUIRE Project, USAID's flagship project, seeks to scale up facility-based family planning (FP) and reproductive health (RH) services. The USAID Mission has provided field support funds to ACQUIRE to advance and support RH/FP services, with a focus on facility-based and clinical care. Working with the Tanzanian Ministry of Health, faith-based organizations, and the private sector, ACQUIRE/Tanzania aims to increase the use of RH/FP services. Figure A1 charts the project's strategic objectives and intermediate results.

Figure A1. Strategic objectives and intermediate results of the ACQUIRE Project in Tanzania



For the purposes of the project, RH/FP services refer to a wide range of services. These encompass the provision of FP methods with comprehensive counseling; the diagnosis and treatment of sexually transmitted infections (STIs); the provision of information on STIs, including HIV/AIDS;

[20] A focus country is a country in which EngenderHealth has invested a significant amount of financial and programmatic resources. There are currently three focus countries: Tanzania, Bolivia, and Bangladesh. All focus countries will undergo baseline and endline surveys.

and the delivery of comprehensive postabortion care (PAC) (i.e., with FP counseling and method provision). It should be noted that the availability of some elements of this package will depend on the level of the health facility; for example, most dispensaries would not be able to provide treatment for abortion complications or tubal ligations.

Over the life of the project, the number of sites providing RH/FP services is projected to increase from 93 sites in 2004 to 812 by 2009. By 2009, the project proposes that 50% of hospitals, 75% of health centers, 80% of maternity homes, and 33% of dispensaries will be providing quality RH/FP services.

The ACQUIRE Project developed a Project Implementation Plan in 2004 through a participatory process with a wide range of implementing and technical partners. The plan addresses the challenges that are identified in the baseline study and is organized by the three intermediate results shown in Figure A1.

As described in the plan, as a result of the project activities, "by 2009, modern method use in the 10 focus regions will reach 24%, sterilization will have doubled and vasectomy prevalence increased dramatically. The improved method mix will have resulted in reduced unmet need. All hospitals and 50% of health centers will be providing comprehensive PAC services, resulting in reductions in maternal mortality and morbidity. The number of individuals targeted through HIV/AIDS prevention, treatment, and support activities will increase dramatically." (ACQUIRE Project, 2004).

Appendix B

Sampling

A stratified sampling scheme was used to select facilities from sites that were identified to receive support from the ACQUIRE Project by June 2006. Facilities were stratified by type (hospitals, health centers, and dispensaries). They included facilities run by the Ministry of Health, the Evangelical Lutheran Church of Tanzania, the Seventh-day Adventist Church, the Private Nurses and Midwives Association of Tanzania, and other faith-based and private organizations. Moreover, the sample, which included facilities from across all 10 focus regions, was determined so that the results would be generalizable to all ACQUIRE-supported sites. A sample of 337 sites was drawn from a total of 403 sites.

Based on the two-group comparison study design (i.e., a pre- and posttest design, without controls), the following formula was used to calculate the sample size for health centers and dispensaries:

$$N = Z^2 [p_1(1-p_1) + p_2(1-p_2)]/d^2$$

Z= standard error associated with confidence intervals; at a confidence interval of 95% the Z value is 1.96
p_1= estimated proportion or indicator level at endline, set at 55%
p_2= estimated proportion or indicator level at baseline, set at 50%
d^2= difference precision, set at 0.05

An adjustment for the small universe was applied once the sample size was calculated. The following formula was used:

$$n_{\text{small universe}} = n/[1+n/N)]$$

n=sample universe
N=sample size obtained from formula above

Appendix C

Data Tables

Table C1. Percentage distribution of facilities, by region and area

Region	Total (n=310)
Arusha	15.5
Dodoma	10.6
Iringa	14.2
Kigoma	8.1
Kilimanjaro	13.5
Manyara	5.2
Mwanza	9.4
Rukwa	7.4
Shinyanga	8.1
Tabora	8.1
Area	
Urban	31.9
Rural	63.5

Source: Facility audit 2004–2005

Table C2. Characteristics of interviewed providers

Characteristic	Total (n=681)
Profession (%)	
Doctor (medical officer/asst. medical officer)	8.5
Clinical officer/asst. clinical officer	21.3
Nurse (nurse officer/nurse/midwife/public health nurse A&B)	37.3
MCH aide	14.5
Nurse assistant	12.5
Other	4.8
Sex (%)	
Female	73.3
Male	26.3
Marital status (%)	
Married	75.7
Single, never married	12.8
In union, living together	2.2
Divorced/separated/widowed	9.0
Religion (%)	
Catholic	42.4
Protestant	43.0
Muslim	9.7
Mean age (range 21–65)	41.8
Mean no. of years providing FP services	11.5
Mean no. of years providing FP services at facility	6.6
Currently using FP method (%)	63.7

Source: Provider interview 2005

Table C3. Characteristics of interviewed clients

Characteristic	Total (n=757)
Sex (%)	
Female	99.7
Male	0.3
Marital status (%)	
Married	85.7
Single, never married	3.6
In union, living together	6.6
Divorced/separated/widowed	4.0
Religion (%)	
Catholic	35.9
Protestant	39.0
Muslim	18.9
Education (%)	
Never attended school	12.6
Primary, Std 1–Std 8	78.3
Secondary Forms I–VI	8.2
Mean age (range 21–65)	28.4
Mean no. of living children	3.1
Intention to have more children	
No	34.1
Yes, within next 2 years	6.1
Yes, more than 2 years from now	56.8

Source: Client exit interview 2005

Note: Some percentage distributions do not add to 100% because clients with missing data are included in the denominator.

Table C4. Percentage of facilities reporting management and supervision elements

Element	Hospital (n=60)	Health center (n=96)	Dispensary (n=154)	Total (n=310)
System for reviewing administrative issues	93.3	90.6	88.3	90.0
Meetings organized to discuss quality issues	86.7	61.5	76.6	73.9
Community members routinely take part in meetings	33.3	39.6	59.7	48.4
System to determine client opinion	86.7	69.8	80.5	78.4

Source: Facility audit 2004–2005

Table C5. Providers' knowledge of duration of IUCD's protection against pregnancy, by facility type

Provider response	Hospital		Health center		Dispensary		Total	
	All (n=156)	IUCD providers (n=64)	All (n=176)	IUCD providers (n=40)	All (n=254)	IUCD providers (n=25)	All (n=586)	IUCD providers (n=129)
10 years (%)	61.5	75.0	52.3	75.0	31.9	72.0	45.9	74.4
Other response (%)	27.6	20.4	27.8	25.0	27.2	28.0	27.5	24.0

Source: Provider interview 2005
Note: Some percentage distributions do not add to 100% because clients with missing data are included in the denominator.

Table C6. Providers' knowledge of duration of Norplant implant's protection against pregnancy, by facility type

Provider response	Hospital		Health center		Dispensary		Total	
	All (n=156)	Norplant implant providers (n=55)	All (n=176)	Norplant implant providers (n=14)	All (n=254)	Norplant implant providers (n=5)	All (n=586)	Norplant implant providers (n=74)
5 years (%)	85.3	98.2	69.9		53.1		66.7	98.6
Other (%)	3.8	1.8	0.0		7.9		5.6	1.4

Source: Provider interview 2005
Note: Some percentage distributions do not add to 100% because clients with missing data are included in the denominator.

Table C7. Pill and injectable users' report of information received from provider about their method, by client type

Information	New clients	Returning clients for resupply	Returning clients with concerns	Total
Pill	**(n=85)**	**(n=91)**	**(n=34)**	**(n=210)**
How to use method	96.5	95.6	94.1	95.7
Pill should be taken once daily	97.6	98.9	100	98.6
Two pills should be taken at once if pill not taken on time	36.5	33.0	55.9	38.1
Side effects	84.7	67.0	58.8	72.9
Warning signs	87.1	72.5	61.8	76.7
All information items	**34.1**	**25.3**	**29.4**	**29.5**
Injectable	**(n=148)**	**(n=250)**	**(n=49)**	**(n=447)**
Client should return to facility in 3 months (12 weeks) for next injection	98.6	96.4	95.9	97.1
Protection against pregnancy begins 24 hours (1day) after injection	40.5	28.4	30.6	32.7
Side effects	90.5	56.8	63.3	68.7
Warning signs	88.5	57.6	63.3	68.5
All information items	**36.5**	**17.6**	**18.4**	**23.9**

Source: Client exit interview 2005