MEASURING THE QUALITY OF FAMILY PLANNING SERVICE DELIVERY IN URBAN KENYA

Katherine Marie Tumlinson

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Approved by:

Brian W. Pence

Sian L. Curtis

Stephen W. Marshall

Anna Maria Siega-Riz

Ilene S. Speizer

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ABSTRACT

Katherine Marie Tumlinson: Measuring the quality of family planning service delivery in urban Kenya
(Under the direction of Brian W. Pence)

Family planning saves lives but is underutilized in developing countries. Improvements in the quality of family planning service delivery may lead to increased contraceptive prevalence; however the association between quality and family planning use has not been well established. Additionally, the validity of standard instruments used to measure the quality of family planning service delivery is unknown. This research used the simulated client method and original data collected from family planning service providers and clients at 19 health facilities in Western Kenya to test the validity of standard facility-level data collection instruments. This research also estimated the association between quality of care and family planning use in urban Kenya using individual (n=3,990 women) and facility-level (n=260 facilities) cross-sectional data collected in 2010-2011 by the Measurement, Learning & Evaluation Project. Results of the validation analysis found that all three standard instruments used to measure family planning service quality performed poorly when compared to the referent standard of simulated client data. This suggests that revised approaches to measuring family planning service quality may be needed to ensure accurate assessment of programs and to better inform quality improvement interventions. Additionally, the multivariate analysis found that the consistent availability of an appropriate mix of contraceptive methods as well as provision of information by providers on side effects

and provider treatment of clients are all associated with significant increases in the likelihood of current modern contraceptive use. This suggests that efforts to strengthen contraceptive security and improve the content of contraceptive counseling and treatment of clients by providers have the potential to significantly increase contraceptive use in urban Kenya.

To my family, both my given and my chosen.

To Moe, the world's most faithful (and beloved) canine companion.

And most of all, to Mehul, who managed to keep me laughing even when I felt like crying and who—despite being forced to listen to my defense no fewer than a dozen times—still agrees to marry me.

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In collaboration with the MLE project, the American Psychological Foundation provided funding for my dissertation data collection activities in Western Kenya through research and travel grants from the Henry David Fund. While in Kenya, my officemates at *Tupange*, Jenipher Ang'aha and Rebecca Dalizu, kept me in good company and gave me a sense of belonging, helped along by a ridiculously fun weekend trip to Jenipher's rural home in Kakamega and Rebecca's endless patience in trying to teach me the steps at her aerobics class. As a first-time principal investigator, I had to rely heavily on others; the world's greatest team of data collectors taught me a tremendous amount about conducting a study and were always gentle when helping to correct my mistakes. Their contributions form the backbone of this dissertation and I could not have asked for more from: Kevine Oware Amolloh, Matilda Ogai Abwok, Richard Nixon Ochieng', Lilian Akinyi Odhiambo, Grace Kariba, Judy Ntabo, Moureen Achieng Onguru, Faith Beryl Adhiambo Kasoly, Perez Lollah Siambe, Perez Achieng Ochieng, and Perez Achieng Ochieng.

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While collecting data for this dissertation for four months in Kisumu, Kenya, I lived apart from my family and friends in the states. The profound homesickness I experienced combined with the never-ending challenges of primary data collection in a foreign and resource-constrained setting, theft, and contraction of a blistering case of M.A.V. (Mysterious African Virus), threatened to bring my stay in Kisumu to an early end. By happy accident, I stumbled into a circle of friends – fellow travelers and researchers – who were relentlessly kind; they sheltered and fed me and gave me a sense of community and comfort. These friends provided expert medical evaluation in my own dining room, taught me where to buy bootleg American movies and real feta cheese, squeezed together to make extra space for my mat in our living room yoga class, instructed their children to call me "auntie", inspired hours of impromptu salsa dancing, and invited me to some of the most interesting dinner parties I've ever attended: Stephanie Dellicour, Nellie and Matt (and Leta)

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I am grateful to my mom, Sue Tumlinson, a long-time and generous volunteer and advocate for women's reproductive rights and the person who encouraged me along this path. My sister, Anne Tumlinson, was the first person to tell me I am smart and convince me that it's true. My dad, James Tumlinson, has supported every decision I've ever made (including my gap year traveling around the US in my jeep and the six months I spent in Europe determined to become a travel writer) and told me nearly two decades ago that I would make a great scientist. Like all of his advice, it took me a long time to realize he was right. Better late than never. My niece and nephew, Grace and James, were great motivation to take time out for family and my brother-in-law, Greg Stohr, never failed to tell me how proud he was of me at each and every goal post.

I am grateful to my life partner, Mehul Patel, for so much more than can be stated here. I am thankful for study breaks spent eating popsicles on the tree bench outside Locopops on Franklin Street, meandering walks with Moe spent puzzling through my latest analytical road block, daily Skype calls while I was in Kenya collecting data for this dissertation (requiring him to get up before 6am every morning for four months), pep talks before each exam and presentation and interview, expert coding advice, and lots and lots of comic relief. While it's true that I probably could have done it all on my own, the last four years would have been so much less joyful without him by my side.

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PREFACE

A ceiling fan swirled lazily above our heads, doing little to dissipate the intense heat of an afternoon in Western Kenya during the region's dry season. Ten pairs of eyes watched me expectantly as I waited impatiently for my presentation to load and project onto the concrete block wall. It was the first day of a week-long training that would precede nearly three months of data collection at health care facilities in Kisumu, Kenya. This was my first experience serving as the principal investigator for a study, and I was a bundle of anticipatory nerves. My goal was to charge my data collection team with a sense of urgency and an understanding of the life-saving benefits of family planning for women and their children. The day stretched long as we unpacked the relationship between contraceptive prevalence and maternal, infant, and child health. At the end of the day, I felt encouraged when one member of my team stayed behind to share, "I learned so much today. You've given me a *language* to talk about family planning with women and their partners."

Many years ago, I worked at my local Planned Parenthood for a program designed to prevent teen pregnancy. Drawing on these early experiences in service delivery, I often wonder if a woman's decision to use contraception is influenced by her interaction with her health care provider. In many developing countries, we try to understand the relationship between the quality of family planning services and actual contraceptive use by collecting data at health facilities, usually in the form of interviews with family planning providers and their clients. Curious about the accuracy of this self-reported data, I traveled to Kenya in

2012 to implement an unusual study. I worked with a team of *undercover* data collectors—local women hired to pose at facilities as new family planning clients and then report back to research staff about their experiences.

The quantitative data I collected in Kisumu, with the help of my data collection team, were used to answer the research question posed in the first aim of this dissertation. Yet, unexpected qualitative findings also emerged. Sometimes my undercover data collectors came back to me with glowing reports of service providers truly devoted to the well-being of their clients. Other times, however, members of my team reported less positive experiences, such as waiting all day at a facility without ever receiving services or witnessing a family planning provider shouting at clients as the clients waited long hours to be served. I was also surprised when a number of my data collectors reported being charged for services that are reportedly provided for free. This often happened behind closed doors and without receipts. These findings are not the focus of this dissertation, but a published manuscript presenting these results has been included in the appendix of this dissertation.

It's not clear if some of the alarming behavior we uncovered is widespread or if it is isolated in just a few facilities. It is evident, however, that such practices are unlikely to be revealed through interviews with providers and clients. Most questionnaires fail to ask providers if they engage in corrupt practices, such as solicitation of informal fees. Providers, with concerns for their own job security, are unlikely to report such behavior anyway. Clients, mindful of future retribution by facility staff, may be reluctant to give negative reports on the care they received. Therefore, more frequent and widespread use of our "undercover" data collection—formally known as the simulated client method—can

provide valuable insight into actual provider practices. This information, in turn, can be used to design interventions that effectively improve the quality of care, with the ultimate goal of more satisfied clients and more family planning use among women with unmet need.

As I reviewed my data, however, it occurred to me that one potential shortcoming of the simulated client method is its inability to incorporate the perspective of the service provider. Perhaps short-tempered providers and the solicitation of client fees are a result of a grossly overworked and underpaid staff. What kinds of data and data collection strategies can we implement, in concert with simulated clients, to better understand the needs of those people on the frontlines of family planning service delivery? Discovering the factors that motivate and allow providers to do their job well is likely a critical part of addressing poor quality services. Considering the needs of both providers and clients and finding new ways to give each group a *language* to talk about family planning could be a powerful strategy for reducing unmet need for family planning.

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LIST OF ABBREVIATIONS

APHRC	African Population Health Research Center
APR	Adjusted Prevalence Ratio
CIOMS	Council for International Organizations of Medical Sciences
DHS	Demographic and Health Surveys
ICPD	International Conference on Population and Development
IUD	Intrauterine Device
KEMRI	Kenya Medical Research Institute
LR+	Positive Likelihood Ratio
LR-	Negative Likelihood Ratio
MLE	Measurement, Learning & Evaluation Project
NPV	Negative Predictive Value
OC	Oral Contraception
OR	Odds Ratio
PI	Principal Investigator
PoA	Program of Action
PPV	Positive Predictive Value
PSU	Primary Sampling Unit
PR	Prevalence Ratio
QIQ	Quick Investigation of Quality
SPA	Service Provision Assessments
TFR	Total Fertility Rate
URHI	Urban Reproductive Health Initiative

CHAPTER I. INTRODUCTION

A. Family Planning Saves Lives and is Under-Utilized in Sub-Saharan Africa

Family planning has been shown to save the lives of women and children living in developing countries (Cleland et al., 2006). In such settings, where perinatal services are often deficient and where women experience frequent and closely spaced pregnancies, an estimated 350,000 women die annually from complications related to pregnancy and delivery (Hogan et al., 2010). According to the Alan Guttmacher Institute (2008), fulfilling unmet need for family planning[1] would reduce the maternal mortality rate by 35% worldwide. In addition, high fertility rates often result in increased use of abortion services. In 2003 in developing countries, 29 abortions occurred for every 1,000 women of reproductive age. Annually, 70,000 women die from unsafe abortion and tens of thousands of women are injured (Cohen, 2009). Family planning can also help women achieve healthy birth intervals of at least two years, which, in developing countries, can contribute to significant reductions in infant and child mortality (The Population Reference Bureau, 2009), potentially reducing childhood deaths by nearly 10 percent (Cleland et al., 2006). Despite the overwhelming success of family planning programs in many world regions, the prevalence of contraceptive use in sub-Saharan Africa remains low while fertility and population growth remain high (Cleland et al., 2006). Less than 20% of married women are modern method users and, on average, one in four women with a desire to space or limit pregnancy are not using a modern

[1] Unmet need for family planning refers to the percentage of women in the population with a desire to delay or limit pregnancy who are not using any method of contraception.

contraceptive method (Population Reference Bureau Datafinder, 2013; Population Resource Center, 2002). Low contraceptive use contributes to an average fertility rate in sub-Saharan Africa of 5.2 children per woman—more than two times the global average (Population Reference Bureau Datafinder, 2013; Population Resource Center, 2002, 2011).

B. The Kenyan Context

Located on Africa's eastern coast, the population of Kenya totals more than 40 million people (Population Reference Bureau, 2012). Kenya's total fertility rate (TFR)[2] has declined substantially in the past 40 years, in large part due to a growing acceptance of family planning and increased contraceptive availability. From a TFR of more than 8 children per woman in the 1970's, fertility rates dropped to approximately 4.7 children per woman by 2008. However, progress has been at a standstill since 2008 (The Measurement Learning & Evaluation Project Web site, 2012). In addition, Kenya has been crippled by the AIDS epidemic, leading to substantial declines in the average life expectancy. As a result of continued high fertility and mortality, Kenya has a young population in which close to half (42%) of the population is under the age of 15 years (Population Reference Bureau, 2012).

Kenya has an infant mortality rate of 59 deaths per 1,000 live births (Table 1) and an adjusted maternal mortality ratio of 530 per 100,000 live births (Population Reference Bureau, 2012). In 2011, it was estimated that approximately 20% of Kenyans lived in an urban environment and 55% of Kenya's urban population is reportedly living in slums with little access to basic amenities (Population Reference Bureau, 2012). As urban populations in Africa are expected to double by 2030, the proportion living in slum conditions in Kenya will rapidly increase (The Measurement Learning & Evaluation Project Web site, 2012).

[2] The total fertility rate (TFR) refers to the number of live births a woman would have, on average, if she lived through the end of her reproductive period and at each age experienced the age-specific fertility rates for that age interval.

Table 1.1.

Fertility-Related Demographic Indicators in Contrasting Settings, 2013 (Population Reference Bureau, 2012)

Region/Country	Contraceptive Prevalence Rate*	Total Fertility Rate**	Unmet Need for Family Planning***	Lifetime Risk of Maternal Death—1 woman in:	Infant Mortality Rate****
More Developed	63	1.6	---	3800	5
Less Developed	56	2.6	18	150	44
Least Developed	29	4.4	24	52	66
Latin America/Caribbean	68	2.2	11	520	19
Asia	61	2.2	16	290	35
Sub-Saharan Africa	21	5.2	25	39	73
Kenya	39	4.5	26	38	54

*Contraceptive use among married women, modern methods, ages 15 to 49 (%) **The average number of children a woman would have assuming that current age-specific birth rates remain constant throughout her childbearing years ***The percentage of women who prefer to space or limit births but are not using family planning ****The annual number of deaths of infants under age 1 per 1,000 live births.

CHAPTER II. LITERATURE REVIEW

A. Historical Background

Family planning programs were first implemented in developing countries in the 1950s and have successfully reduced fertility in many low-income countries around the world, most notably in Asia, Latin America, and North Africa (Bongaarts, 2011; Cleland et al., 2006). Large declines in fertility are most evident in Latin America and Asia, where total fertility rates (TFR) in the past 60 years have dropped from nearly 6 births per woman to less than 2.5 (Bongaarts, 2011). In contrast, the majority of countries in sub-Saharan Africa continue to experience high rates of fertility with a regional TFR of 5.2 births per woman—more than twice the global average (Population Reference Bureau, 2011; Population Resource Center, 2002; Bongaarts, 2011). These regional disparities in fertility began to gain attention in the late 1980s and early 1990s, prompting many members of the international family planning community to question whether continued improvements in geographic and financial access to services in sub-Saharan Africa would be sufficient to close the gap in fertility rates (Barry, 1996; Bertrand et al., 1995; Bruce, 1994).

In response to these concerns that lack of access could not fully explain sub-optimal use of contraception, many international donors and national policy-makers began to focus on characteristics of family planning service delivery with a growing interest in a previously neglected dimension of family planning programs—quality of care (Barry, 1996; Berer, 1993; Brown et al., 1995; Hardee & Gould, 1993; Kols & Sherman, 1998; Jain et al., 1992;

Simmons & Elias, 1994). Conventional wisdom that increasing service delivery points could address the principal reasons for the unmet need for family planning was strongly challenged when survey data from 1986–1990 on causes of unmet need in 27 developing countries indicated that the primary reasons for nonuse included fear of side effects, lack of knowledge, and cultural disapproval—reasons that could be addressed by improvements to the quality of family planning service delivery (Bongaarts & Bruce, 1995; Blanc et al., 2002). Additional studies from the same time period in Asia and sub-Saharan Africa also found fear of side effects played a significant role in explaining the gap between fertility goals and actual practice, contributing significantly to contraceptive discontinuation, while geographic access was of less importance (Casterline et al., 1997; Cotten et al., 1992). Such findings prompted some to conclude that despite the ability of many family planning programs to reach remote areas of poor countries, they were "social failures" for their inability to address cultural factors, health concerns, and misinformation in the populations they serve (Bongaarts & Bruce, 1995). The meaning of success in family planning programs was redefined to apply to those programs that effectively helped women and couples safely determine the number and spacing of their children (Jain et al., 1992).

It is important to acknowledge that the very first family planning programs in developing countries were inspired by a desire to help women meet their reproductive needs rather than support the interests of national governments (Hull, 1996; Jain, 1989). However, the necessity of attracting financial support from national governments and international donors led many proponents of family planning programs to emphasize the numerous national benefits of slowed population growth in low-resource countries, often referred to as the "demographic rationale" (Jain, 1989; Jain et al., 1992). When it became apparent in the

late 1960s that large ideal family sizes in many developing countries would inhibit achievement of replacement-level fertility, some family planning programs chose to short-cut the longer-term societal changes necessary to reduce desired fertility by using a variety of means to influence couples' ideal family size (Jain, 1989). The neglect of quality and a rights-based approach to family planning service delivery, therefore, was a natural consequence of programs being evaluated based on their ability to attract new contraceptive users rather than on the quality of services provided to clients (Jain, 1989; RamaRao & Mohanam, 2003; Brown et al., 1995; Suh et al., 2007). The consequence of neglecting quality is well illustrated by the failed introduction of the intra-uterine device (IUD) in parts of Asia in the mid 1960s. Half of new IUD users had discontinued within two years, many due to unwanted side effects for which they were unprepared. Several researchers hypothesized that rates of discontinuation would have been significantly lower had these women received information on the possibility of side effects with IUD use (Bruce, 1987; Jain, 1989).

A shift among leaders in the field of international family planning from a focus on demographic targets to a prioritization of meeting client needs marked the beginning of a new era in contraceptive research (Paine et al., 2000; Berer, 1993; Bertrand et al., 1995; Helzner, 2002; Jain, 1989; Ketting, 1994; Whittaker et al., 1996). By the mid-1990s 'quality-of-care' had become part of the regular discourse in the field of family planning, with most major international family planning agencies showing strong commitment to improving access to high-quality services, working under the hypothesis that such improvements would not only lead to reductions in fertility but also better meet the reproductive needs of individual women and their partners (Bruce, 1994; Berer, 1993; Bruce & Jain, 1991;

RamaRao & Mohanam, 2003; Simmons & Elias, 1994). The changing tide in the field of family planning was apparent at an important meeting in 1994, the International Conference on Population and Development (ICPD) in Cairo, widely viewed as a watershed event in sexual and reproductive rights (Pellegrom, 2006). The Cairo conference, attended by delegates from 180 countries, issued a Program of Action (POA) condemning coercive tactics and rejecting demographic targets (Caldwell et al., 2002; Helzner, 2002; Hull, 1996). The POA also promoted the reproductive right of couples to choose the number and spacing of their children free from coercive practices (United Nations, 1994). Those in the field of international family planning were called on to think about family planning in a much broader sense as part of a range of reproductive services and to prioritize the needs of individual women and men over the achievement of demographic goals (Cohen & Richards, 1994).

Inherent in the discourse on quality was a focus on the importance of safe-guarding reproductive rights. Those taking a rights-based perspective argued that without reproductive rights, the reproductive health needs of women are secondary to national demographic goals or the "collective good" and the negative consequences of high fertility on individual women are ignored (Wang and Pillai, 2001). A reproductive rights approach to developing family planning policies recognizes that lack of access to quality family planning services has more than demographic consequences and takes into account the needs and interests of women, men, and their communities (Berer, 1993). Providers who have adopted a reproductive rights approach are better placed to deliver high-quality services (Helzner, 2002).

The broad support for promotion of service quality in family planning programs was solidified by the publication of a formal framework that outlined the essential elements of

quality of care in family planning service delivery (Bruce, 1990; Hull, 1996). This framework, developed by researcher Judith Bruce, includes aspects of both technical competency and interpersonal relations, reflecting and reinforcing the shift in focus from demographic targets to a client-centered and reproductive rights approach (Hull, 1996). Bruce's framework is based, in part, on the earlier work of physician and scholar Avedis Donabedian, who wrote extensively on the quality of healthcare services and suggested assessing quality in terms of three categories: *structure* (infrastructure, supplies, management), *process* (interpersonal relations and technical competence), and *outcome* (client satisfaction and changes in health behavior) (Donabedian, 1988). Bruce states that the six elements included in her framework for quality of care in family planning programs "reflect six aspects of services that clients experience as critical" (Bruce, 1990). These include:

A. *Choice of methods,*
B. *Information given to clients,*
C. *Provider competence,*
D. *Interpersonal relations,*
E. *Follow-up or continuity mechanisms,* and
F. *Appropriate constellation of services.*

1. Defining the Elements of Quality in Family Planning Service Delivery

Choice of Methods: Having a choice of methods means that a satisfactory selection of methods, in terms of both number and type, is available on a reliable basis. Choice of methods is determined not only by the physical availability of multiple methods but also by willingness on the part of the provider to discuss multiple methods (Mensch et al., 1994b). Choice is important for multiple reasons. Women and their partners have different reproductive needs at different stages of their lives, depending on their age, parity, type of relationship, and lactation status (Jain et al., 1992). For example, couples who initially want

to delay childbirth may later wish to space, and eventually limit, future pregnancies. A choice between short- and long-acting methods helps accommodate these life changes. Another important reason for providing access to a variety of methods is the desire on the part of many women to avoid undesirable side effects such as disruptions to menstrual patterns, headaches, weight gain, or nausea, common with hormonal methods. Such side effects, which are impossible to predict, are consistently found to be one of the main reasons women report contraceptive discontinuation within the first year of use, particularly among women who have not been told what to expect (Bruce, 1990; Ali & Cleland, 1999; Burke & Ambasa-Shisanya, 2011; Cotten et al., 1992; Curtis et al., 1997). First-time contraceptors may therefore need to switch methods to find one with tolerable side effects. In addition, given the frequent occurrence of insufficient or inconsistent supplies in many international family planning programs, the presence of many methods increases the probability that a minimum of one method will be available at any one time (Bruce, 1990). As a final note, in addition to these practical reasons, from a philosophical standpoint, ensuring access to a variety of methods reaffirms the commitment to meeting the needs of individual women as opposed to the blind promotion of a single method (Bruce, 1990). This is a mark of a client-oriented program.

Information Given to Clients: Providing information to clients means that clients receive information from their service provider on a range of methods, including the advantages and disadvantages of each method and instructions for using the client's method of choice (Jain, 1989). The provision of this information allows clients to understand they can choose from a variety of methods, each with different attributes. In addition, clients can be prepared to anticipate the possibility of experiencing side effects with the use of certain

hormonal methods, the presence of which may affect daily activities. As Bruce (1990) points out, the client is selecting a method that must fit into her daily life, including social activities and intimate sexual experiences. Unpredictable menstrual patterns, for example, may impact religious practices, work routines, and sexual experiences and it is important for women to be prepared for this possibility in advance (Bruce, 1990). By ensuring that the client is informed and knowledgeable about potential side effects, the provider is, in effect, helping the client manage their expectations of their contraceptive experience.

Provider Competence: Provider competence refers to the technical competence of the service provider and is a separate element from the interpersonal relationship between the provider and the client. A competent provider is one who demonstrates adequate technical competence and adherence to medical guidelines and protocols. Failure to observe safe clinical standards may not only result in harmful health outcomes but could also generate negative rumors about family planning programs or methods (Bruce, 1990). This element is perhaps the most difficult to measure given that clients are not well placed to judge technical competence. Training is often used as a proxy for competent clinical performance, although trained providers have been known to display incompetence. Observations of client-provider interactions are frequently employed to determine whether providers engage in such basic procedures as adequate record-keeping and hand-washing prior to physical exams.

In addition to inadvertent violations of medical guidelines, examples exist of providers imposing excessively restrictive medical criteria that effectively block access to services for women who would like to avoid unintended pregnancy. Such behavior on the part of the service provider leads to what is commonly referred to as ‘medical barriers’ to contraceptive services (Bertrand et al., 1995). Providers may restrict access for any number

of reasons, including the client's pregnancy status, misinformation such as use of outdated eligibility criteria, and personal bias on the part of the provider (Greene & Stanback, 2011; Bertrand et al., 1995). Thanks in large part to improvements in provider training and more universal availability of family planning guidelines and job aids (Tumlinson et al., 2010), medical barriers have greatly decreased in the past decade, but they still exist (Greene & Stanback, 2011; Tumlinson et al., 2010). For example, providers will often deny contraception to women who are not menstruating out of fear they may be pregnant, causing delays in method procurement for countless women. This practice continues to be well-documented in many countries including Guatemala, Senegal, Jamaica, Kenya, and Ghana (Greene & Stanback, 2011). Quality assessment is necessary to determine existing disparities between standards of technical competence and actual practice in the field (Bruce, 1990).

Interpersonal Relations: Interpersonal relations can be viewed as the personal or human aspect of service provision and is influenced by client caseload, adequate supervision, and the individual program's priorities and goals (Jain et al., 1992). A good interpersonal relationship is one in which a 'positive and productive' interaction takes place between the client and provider from the client's perspective (Bruce, 1990). Interpersonal relations between providers and clients may influence client confidence in and satisfaction with their chosen method as well as increase the likelihood of a return visit (Bruce, 1990). Bruce (1990) suggests that good interpersonal relations require understanding and respect on the part of the provider, including bi-directional communication and the opportunity for the client to ask questions rather than merely receive authoritative lectures (Bruce, 1990). This may also include offering the client reassurance, caring, and sympathy when needed and observance of the client's modesty wherever appropriate. A program focused primarily on the achievement

of demographic targets can undermine attempts by providers to respond to the individual needs of their clients (Bruce, 1990). Interventions to improve client-provider interactions may include analysis of providers' case-loads or increased managerial support for improved interpersonal performance (Bruce, 1990; Jain, 1989).

Continuity and Follow-Up: This element of quality ensures that follow-up mechanisms are in place, such as scheduling of future appointments or home visits, to encourage contraceptive continuity. Assisting clients with resupply may result in greater rates of contraceptive continuation, an important component of the overall prevalence rate (Bruce, 1990). Although many family planning programs have traditionally focused on the recruitment of new clients, some research suggests that programs will be more successful both in terms of achievement of demographic targets and commitment to individual welfare if they focus on providing good care to a small number of satisfied clients rather than recruiting large numbers of acceptors, the majority of whom later discontinue their method due to dissatisfaction (Jain, 1989; Blanc et al., 2002).

Appropriate Constellation of Services: Integrating family planning into additional health services such as postpartum care, post-abortion care, HIV testing and counseling, child immunizations, and others ensures convenient access to services (Jain, 1989). Integrated programs that maintain sufficient competence may result in increased points of contact for the client. In addition, integration recognizes the natural linkages between certain services such as family planning and post-abortion care (Bruce, 1990). For example, an analysis of post-abortion care in Lima, Peru, in the late 1990s noted that failure to provide family planning services to women following post-abortion care represents a double failure on the part of the family planning program: once when she experienced an unintended pregnancy

resulting in an unsafe abortion and a second time when she left treatment for the unsafe abortion without a reliable method of family planning (Huber & Bowles, 1999).

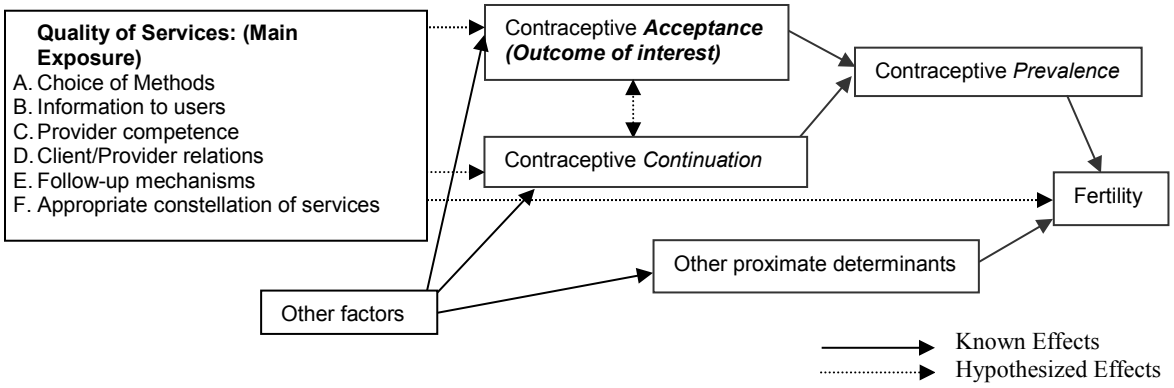
2. Conceptual Framework

Bruce's quality of care framework was developed in response to the need to operationalize a more "client-centered" approach to family planning service delivery with the expectation that improved quality of care would increase client satisfaction and enable clients to exercise control over their fertility and achieve their reproductive goals. However, many proponents have argued that in addition to these individual-level benefits, on the macro-level, high-quality reproductive health services may contribute significantly to increases in contraceptive prevalence and lower levels of fertility (Bruce, 1990; Arends-Kuenning & Kessy, 2007). Anrudh Jain (1989), a senior researcher at The Population Council, developed the conceptual model displayed in Figure 2.1, which demonstrates the hypothesized mechanism by which quality may affect contraceptive behavior. Simply put, improvements in quality may increase both acceptance and continuation of contraception which will, in turn, reduce fertility (Jain et al., 1992).

Efforts to improve quality of care, much like efforts to increase geographic and financial accessibility, are typically classified as supply-side family planning interventions because they facilitate a couple's ability to use family planning, responding to an existing demand for services. In contrast, demand-side interventions, such as interventions to influence a couple's desired family size or their motivation to prevent unintended pregnancy, work to generate additional demand for contraceptive services and supplies. A wealth of demographic literature discusses the ability of demand- and supply-side interventions to increase contraceptive prevalence and reduce fertility (Mwaikambo et al., 2011; Jain, 1989).

Jain, however, has suggested that improvements in quality may straddle these two categories given the powerful role of word-of-mouth communication in many communities of interest. Therefore, in addition to the direct relationship displayed in Figure 2.1, Jain hypothesizes that clients well-satisfied by high quality services are likely to influence other members of their community, helping transform latent demand for services into actual contraceptive use (Jain, 1989). Although researchers have looked extensively at demand-side factors such as demographic characteristics and cultural values, relatively little is known about how supply-side factors such as quality of care affect contraceptive use (Arends-Kuenning & Kessy, 2007).

Figure 2.1. Conceptual model demonstrating the known and hypothesized relationships between quality of family planning services, contraceptive uptake and continuation, and fertility. Anrudh Jain, The Population Council, 1989 (Jain, 1989).



In the interpretation of Figure 2.1, Jain also points out that 'motivation' plays an important role in the relationship between service quality and contraceptive prevalence. According to Jain, those couples strongly motivated to avoid unintended pregnancy will overcome the hardships imposed by poor quality services to achieve their reproductive goals. Conversely, those with little to no motivation to prevent pregnancy will not become

contraceptive adopters even if excellent services are available. For these two extreme groups, the quality of family planning service delivery is unlikely to have much impact on contraceptive use and continuation. However, for clients whose level of motivation and corresponding demand for services falls somewhere between these two extremes, quality is expected to have a significant impact (Jain et al., 1992; RamaRao et al., 2003).

In preparing to assess the relationship between quality and contraceptive use, some researchers have suggested that achieving a high level of service quality may not be realistic in the absence of adequate service infrastructure (Tuoane et al., 2004). In other words, those with direct client contact—the service providers—need support in the form of training, guidance, supplies, and educational materials to do their job well (Huezo & Diaz, 1993). RamaRao and Mohanam (2003) note that program managers have cited deficiencies in the service infrastructure as a key barrier to providing good quality services. As such, the term "quality" can be expanded to include not only the dynamics of the interaction between the provider and client but also the degree to which facilities are prepared to offer services. The quality of service infrastructure is commonly referred to as a facility's "readiness" and this concept draws attention to factors that may impede the provision of high quality services (RamaRao & Mohanam, 2003). In comparing the concept of readiness and Bruce's quality framework to Donabedian's three-pronged approach to measuring quality (*structure*, *process*, and *outcome*), readiness could be considered to map to Donabedian's "structure" while Bruce's framework aligns closely with "process."

Several researchers have considered as well the possibility that *perceptions* of quality may be more closely related to contraceptive behavior than actual quality as measured by more objective means (Koenig et al., 1997; Speizer & Bollen, 2000; Veney et al., 1993). For

example, a study using 1989–1991 data from rural Bangladesh looked at the relationship between perceived quality and subsequent adoption or continuation of a contraceptive method, using prospective data from 7,800 women (Koenig et al., 1997). According to their perceptions, 28% of women received good quality of care most or all of the time and these women were significantly more likely to adopt a method (risk ratio: 1.27, $p \leq 0.05$) or to continue use (risk ratio: 1.41, $p \leq 0.001$), after controlling for other factors. A subsequent study in Tanzania considered whether perceptions of quality from knowledgeable informants were correlated with objective measures of quality and found that though a few objective traits were associated with perceptions of quality, many were not (Speizer & Bollen, 2000). As a result, some researchers have concluded that even when perceived quality is significantly associated with contraceptive use and continuation, little is known about how family planning programs can influence these perceptions, for example improving availability of methods or ensuring privacy (Arends-Kuenning & Kessy, 2007).

Not all researchers agree with the theory that high fertility rates are the result of an unmet need for high-quality family planning services. Pritchett (1994) offers a contrasting point of view by arguing that high rates of fertility reflect the desire for large families. Pritchett's interpretation of household data from several developing countries indicates that the cost of contraception is not a strong factor in decisions regarding the number and spacing of children. Pritchett states that even the poorest families spend between 1% and 3% of household income on tobacco, a luxury item, and could therefore easily afford contraception. Based on these observations, Pritchett recommends policies and programs that focus on changing women's desires rather than increasing contraceptive supply. To this end, Pritchett recommends raising the educational and income levels of women and working to improve

their status within their community (Pritchett, 1994). Bongaarts (1994) took issue with Pritchett's view that "excess fertility" was not a matter of great importance, citing the hazards to both women's health and the planet of unchecked population growth and stating, "Helping women (and men) to implement their reproductive preferences is an obvious place to start if one wants to reduce fertility and future population growth" (Bongaarts, 1994). Although Bongaarts recognized the important role of economic development in achieving fertility reductions, he pointed out the critical ability of family planning programs to address established barriers to contraceptive use, namely fear of side effects and cultural disapproval, thereby reducing the "*non-economic*" costs of using family planning methods (Bongaarts, 1994).

3. Instruments for Measuring Quality Elements

Since its introduction in 1990, Bruce's framework for quality of care in family planning service delivery has become the recognized standard for measuring quality in the field of international family planning (Askew et al., 1994; Barry, 1996; Brown et al., 1995; Hull, 1996; Jain et al., 1992; Jain et al., 1992b; Ketting, 1994). However, global adoption of the framework coupled with the overwhelming and broad support for prioritizing service quality that emerged from the 1994 ICPD was only a first step. Figuring out how to implement and assess the quality of services in the field posed a whole new set of challenges. By the mid-1990s there was strong desire on the part of contraceptive researchers to identify specific areas for quality improvement within individual family planning programs as well as to understand the true relationship between aspects of quality and contraceptive use and continuation (Brown et al., 1995), but appropriate data-collection instruments were in short supply. Researchers were beginning to understand the complexity of measuring quality in the

context of family planning programs (Brown et al., 1995) and were beginning to think about how to translate Bruce's framework into "programmatic reality" (Cohen & Richards, 1994). As Donabedian points out, it can be a mistake to assume that quality cannot be measured and yet an equal error in judgment to think such measurements are easy and precise, "as if a sack of potatoes was being weighed" (Donabedian, 1988).

The need for systematic, reliable, and relatively fast measures of quality gave rise to the development a set of instruments known as the Situation Analysis (Simmons & Elias, 1994), first developed by the Population Council's Africa Operations Research and Technical Assistance Project in 1989 (Fisher et al., 1992) and later revised and adapted by other groups for regions outside sub-Saharan Africa. As the first attempt to operationalize the concept of quality (Miller et al., 1991), the objectives of the first situation analysis were to describe both the quality and "functioning" of family planning services and to evaluate the impact of quality on the outcomes of client satisfaction, realization of reproductive goals, contraceptive prevalence, and fertility (Fisher et al., 1992). The "functioning" of family planning services refers to whether a specified service delivery point is ready to provide services based on indicators such as adequate supervision, contraceptive supplies and equipment, staffing, training, record keeping, and the availability of educational materials commonly referred to as Information, Education, and Communication (IEC) (Mensch et al., 1994b). This concept is similar to those of "readiness" or "structure," discussed previously.

Numerous situation analyses have been conducted in multiple developing countries over the past 20 years, with refinements to the original instruments (Paine et al., 2000). The situation analysis originally included four basic data collection instruments for use at a

service delivery point, although a research team may omit one or more of these instruments depending on available resources:

1. A **facility audit** inventories supplies and equipment and collects information on infrastrure, record-keeping, and management.
2. An **observation guide** is a protocol for observing the client-provider interaction during the family planning consultation and also allows assessment of the provider's adherence to national standards and guidelines.
3. A **questionnaire for interviewing family planning clients** as they exit the facility allows assessment of the client's viewpoint of the service delivery setting.
4. A **questionnaire for interviewing service providers** collects information from providers on training, supervision, and attitudes about their work environment (Fisher et al., 1992; MEASURE DHS, 2012).

An additional and similar set of tools useful in assessing quality with relative speed is the *Quick Investigation of Quality (QIQ): A User's Guide for Monitoring Quality of Care in Family Planning* developed by MEASURE Evaluation in 2000 (MEASURE Evaluation, 2001). In the initial phase of development, staff and collaborators of MEASURE Evaluation identified more than 200 indicators of quality of care. Through a series of field tests in 1998–1999 designed to judge both feasibility of collecting this data and its corresponding reliability, this list was narrowed down to a short list of 25 indicators for inclusion in the final QIQ (RamaRao & Mohanam, 2003; Bessinger & Bertrand, 2001). Much like the situation analysis, the QIQ includes several basic data collection instruments designed to assess the quality of family planning service delivery but omits the questionnaire for interviewing service providers. The three methods of data collection included in the QIQ are the facility audit, the observation guide for client-provider interaction, and the questionnaire for interviews with exiting family planning clients (MEASURE Evaluation, 2001). These instruments were field tested in Ecuador, Turkey, Uganda, and Zimbabwe. The authors of the QIQ note that there is significant overlap between the indicators and instruments included in

the situation analysis and those included in the QIQ but suggest that the more concise nature of the QIQ is advantageous for programs wanting to monitor quality on an annual or biannual basis (MEASURE Evaluation, 2001).

Several large-scale multi-country surveys collecting data on population and health indicators have incorporated some version of the instruments included in the situation analysis or the QIQ to measure service quality at the facility level. Among those still in use, one example is the Service Provision Assessment (SPA) implemented in select developing countries by the Demographic and Health Survey (DHS) program. The DHS is a survey conducted in approximately 90 developing countries. The DHS SPA measures the quality of several types of services including child health, maternity and newborn care, sexually transmitted infections and other infectious diseases, and HIV/AIDS—in addition to family planning services. Each SPA survey employs a representative sampling frame and includes a sample of over 400 facilities ranging from hospitals to health posts. A DHS SPA will typically have observations of about 4,000 provider-client interactions and will include interviews with a minimum of 1,000 healthcare providers (MEASURE DHS, 2012).

Although development of the situation analysis and corresponding SPA surveys has enabled select countries to collect data on family planning service delivery at the facility level, the DHS does not provide the means for linking individual and facility-level data by geographic location or by individual woman (Gubhaju, 2009). For this reason, it is challenging to assess the relationship between quality and individual outcomes such as contraceptive use or continuation using DHS data. In addition, since 1999, only nine countries—about 10% of all countries ever participating in a DHS survey—have conducted an SPA survey. These countries include Kenya (1999, 2004, 2010), Namibia (2009), Rwanda

(2001, 2007), Tanzania (2006), Uganda (2007), Bangladesh (1999–2000), Egypt (2002, 2004), Ghana (2002), and Guatemala (1997 but final report still pending). Three of these countries (Bangladesh, Egypt, and Ghana) omitted at least one of the following instruments: the provider interview, the exit interview, or the observation protocol (MEASURE DHS, 2012).

Another large-scale multi-country survey to include assessments of quality at the facility level is the Measurement, Learning & Evaluation (MLE) Project, implemented by the Carolina Population Center at the University of North Carolina at Chapel Hill. In 2009, the Bill and Melinda Gates Foundation funded the Urban Reproductive Health Initiative (URHI), a five-year project to increase the contraceptive prevalence rate in select urban areas of Kenya, Senegal, Nigeria, and Uttar Pradesh, India. The MLE project is a six-year project to evaluate this initiative and collects data at both the individual and facility level. The facility-level instruments used to collect data on quality of care in the MLE project include the facility audit and the provider and exit interviews. In addition, the MLE project contains sufficient information to allow for the linking of individual and facility-level data.

4. Methodological Concerns

Courtesy Bias: It should be noted that the structured format of questions used in the exit interview combined with the close proximity to facility personnel often results in courtesy bias, whereby clients feel uncomfortable reporting negative aspects of care. Courtesy bias tends to skew results related to client satisfaction in a positive direction of higher perceived quality (MEASURE Evaluation, 2001; Simmons & Elias, 1994; Bessinger & Bertrand, 2001; Whittaker et al., 1996). At a minimum—ie., assuming the errors in measurement resulting from courtesy bias occur completely at random—such bias may result

in inflated standard errors and results that incorrectly appear insignificant (Mensch et al., 1994a).

Reliability of Provider Interview: Providers may report their *intentions* or an "ideal" of service delivery rather than what they do in practice (Simmons & Elias, 1994). The desire to report what they believe they should be doing rather than providing an accurate description of existing services could be the result of social desirability bias, whereby the respondent wants to please the data collector, or may result from fear of losing their jobs if their actual practices are revealed. As with courtesy bias, the inflation of provider competence and service delivery practices likely skews quality in a positive direction.

Hawthorne Effect: Direct observation of the client-provider relationship is one way to avoid exit interview courtesy bias or provider interview misinformation because a third party observes the client-provider interaction and objectively and systematically records impressions. However, direct observation is not without problems (Simmons & Elias, 1994; MEASURE Evaluation, 2001). Of primary concern is the fact that when providers know that they are being watched and observed, they are likely to change their behavior and act differently than if they were alone with the client; in other words, providers are on their "best behavior" during observations (MEASURE Evaluation, 2001; Bessinger & Bertrand, 2001). For example, during a situation analysis conducted in Kenya in 1991, a provider reported, "I usually do not have this much time for clients, but *in view of your presence, I had better try to do an especially good job*" (Miller et al., 1991).

There are a few possible solutions for avoiding Hawthorne bias while still observing the client-provider interaction. One possible solution is to audio- or videotape interactions to be reviewed later (Simmons & Elias, 1994). To my knowledge, this method has not been

widely used in developing countries. Another, more commonly employed, approach for conducting observations is use a mystery or "simulated" client method (Hardee et al., 2001; Huntington & Schuler, 1993; Leon et al., 2007; Madden et al., 1997; Maynard-Tucker, 1994; Naik et al., 2010; Population Council, 1992; Schuler et al., 1985). In this approach, a woman pretending to be an actual new family planning client presents at a health facility and undergoes a family planning counseling session. During the session the provider is unaware that their client has a research agenda (Madden et al., 1997). Following the session, the "undercover" data collector then records or reports her observation. The main benefit of this method of conducting observations is that it is an unobtrusive means of collecting data and likely to be more accurate than a third-party observation; it collects data on actual practice that would be difficult to obtain through other means (Madden et al., 1997). In addition, the use of simulated clients can be useful when the flow of new clients is low or when clients decline to be interviewed (Simmons & Elias, 1994; Mensch et al., 1996). For example, in a situation analysis conducted in Kenya in 1990, only 48 of the 99 selected clinics had new clients on the day they were visited and as a result the analysis was considerably restricted (Miller et al., 1991).

The key to accuracy with the simulated client method is the employment of simulated clients who present realistically to the observed providers, are representative in their presentation of the typical client population for each clinic, and have a strong recall of events occurring during their counseling session (Madden et al., 1997). It can be difficult to recruit such clients, especially in small communities where the simulated clients are more likely to be recognized (Boyce & Neale, 2006). A study of the reliability of data obtained from simulated clients in a 1991 study in Peru used *pairs* of concealed observers and found low

levels of agreement (interclass correlation = .5) within pairs, indicating the likelihood of rating errors (Leon et al., 1994). In studies in which a single provider is evaluated by a single observer, doubt must be expressed about the reliability of the evaluation. One solution is the use of checklists to help the simulated client recall and objectively evaluate providers.

In addition to the many methodological benefits of using simulated clients to collect data on provider-client interactions, there are ethical concerns with this type of data collection (Madden et al., 1997). Because it is inherently necessary for simulated clients to engage in subterfuge by masking their true purpose and intent, obtaining informed consent from providers is not possible (Huntington & Schuler, 1993). One possible negative consequence of this approach is that once providers become aware that they have been observed without their consent, it is likely to undermine the relationship and rapport between providers and their supervisors who have approved such methods. In addition, it's possible that clients may have to undergo an unwanted physical exam to maintain the ruse of their visit (RamaRao & Mohanam, 2003; Madden et al., 1997). Guidelines for addressing ethical concerns in epidemiologic research published by the Council for International Organizations of Medical Sciences (CIOMS) suggest absence of informed consent may be acceptable in scenarios where full disclosure would interfere with the study purpose (Madden et al., 1997). Huntington and Schuler (1993) also suggest ways to uphold ethical integrity while still gaining the benefits of this approach. One solution is to disclose to the provider the possibility of simulated client visits at a future date so that they are aware that they will be observed at some point but will not know when such observations will occur, inhibiting their motivation to change their behavior. It may also be possible to train simulated clients on ways to avoid unwanted exams (RamaRao & Mohanam, 2003). It is also a good idea to

discuss all ethical concerns with clinic managers to find ways to implement client simulations with integrity (Huntington & Schuler, 1993). Many feel the validity benefits of employing simulated clients outweigh these concerns (Boyce & Neale, 2006).

Recall Effects: When interviewing family planning clients just before they exit the health facility, it is important to remember that these clients may have difficulty recalling the information that they received during their family planning counseling session. For example, even when providers discuss possible side effects of the client's chosen method, the client may not be able to remember that this information was given to them. They may also feel that some of the information they discussed with their provider is private and may therefore deliberately omit some information during the interview to shield their privacy. Authors of the QIQ suggest using a client interview instrument containing only a limited number of questions to reduce interviewee fatigue and subsequent lack of recall (MEASURE Evaluation, 2001). However, it may also be the case that a client's lack of recall of the information provided is a relevant measure of quality. Whether or not poor recall introduces bias into a study depends on the research question.

Cost: Some researchers suggest choosing between conducting exit interviews and direct observations in settings where research resources are scarce given that some studies have found a high degree of agreement between the two instruments, particularly with respect to indicators measuring interpersonal relations (Bessinger & Bertrand, 2001). Others suggest conducting both exit interviews and direct observations rather than substituting one for the other given the unique perspective provided by each (MEASURE Evaluation, 2001). For example, clients often have difficulty expressing dissatisfaction with provider performance during exit interviews either due to cultural norms discouraging negative

feedback or for fear that the provider may learn of their comments (RamaRao & Mohanam, 2003). In contrast, poor performance by the provider will be evident to an observer even when the client is reluctant to identify such behavior. Selecting only one of the two instruments, therefore, limits the number and types of indicators that can be used to measure quality (Bessinger & Bertrand, 2001). It is also important to note that clients can not provide information on specific clinical practices related to technical competence because they don't have the necessary clinical background to assess this aspect of care. Similarly, only client exit interviews can provide client perspectives. In addition, collecting the same information with more than one instrument allows researchers to conduct "internal validity checks" (Mensch et al., 1994b).

5. Conclusion

In summary, over the past two decades quality of care has become the issue to champion by those in the field of international family planning. Yet despite widespread endorsement of the Bruce framework and development of standardized data collection instruments, obstacles to obtaining accurate measures of quality remain. Few countries collect facility-level data and even fewer use observation of the client-provider interaction to verify the data collected from exit and provider interviews. And although the simulated client method could be considered the gold standard for collecting data on most elements of quality, it has only been used in a handful of studies. In addition, within studies investigating the quality of family planning services there is great diversity in how quality is defined and which elements of quality of care are considered most important. Inconsistent definitions of quality pose a challenge to summarizing results of studies investigating quality of care in family planning programs (Mwaikambo et al., 2011).

It is unfortunate that after 20 years of research, very little is known about quality and family planning despite the impression that quality is a proven determinant of contraceptive prevalence (RamaRao & Mohanam, 2003).This is likely the result of the pervasive agreement that quality is an important factor in ensuring reproductive rights. Such widespread consensus may eclipse the fact that although high-quality care can still be deemed essential from a reproductive rights perspective, there is a scarcity of information about successful efforts to provide good quality or its subsequent effect on contraceptive behavior (RamaRao & Mohanam, 2003). As the following literature review will demonstrate, few methodologically rigorous investigations of quality exist and many of those have found only a weak association between quality and contraceptive prevalence; whether this is because quality is of little public health importance or due to significant problems in the way quality is measured remains unknown (Mensch et al., 1994a).

B. Critical Review of the Literature

A systematic review of published literature was conducted to investigate the relationship between family planning service provision and contraceptive behavior. Literature was identified by electronic searches of *Pubmed* using appropriate MeSH search terms as well as follow-up of citations in the identified literature and consultation with experts. The following review is organized by region, beginning with studies in sub-Saharan Africa and followed by a review of the literature in North Africa, Asia, and Latin America and the Caribbean. A final section is devoted to large multi-country studies. Unless otherwise stated, multivariate analyses in this review controlled for demographic and regional characteristics such as age, parity, education, employment, wealth, and urban versus rural

residence. National surveys such as the Demographic and Health Surveys (DHS) use statistical techniques to ensure nationally representative samples.

1. Quality of Care in Sub-Saharan Africa

Descriptive studies

Several studies have described the quality of family planning service delivery and infrastructure in sub-Saharan Africa using the situation analysis approach (Agha & Do, 2009; Askew et al., 1994; Mensch et al., 1994b; Miller et al., 1991; Tuoane et al., 2004). Three of these five studies were conducted in Kenya between 1991 and 2004 while two additional situation analysis studies were conducted in Nigeria and Lesotho in the mid-1990s. Most of these situation analyses used a combination of the main data collection instruments (facility audit, observation, interviews with providers and/or clients) to measure quality as defined by the Bruce framework. This consistent adherence to standard definitions and data collection instruments allows for more balanced comparison between studies.

One of the very first situation analyses was conducted in 1989 in Kenya in 99 randomly selected public health facilities to assess national levels of quality primarily using observations (n=48) and supplementing with interviews where needed (Miller et al., 1991). Results found major deficiencies in most areas of infrastructure, including contraceptive supplies, educational materials, supervision, referrals, and training in family planning. Deficiencies in service quality were also found, including restricted choice of methods, little information on management of side effects, failure to ascertain reproductive goals, and a dearth of mechanisms in place to ensure follow-up. Researchers judged providers to be relatively competent and found family planning services were well integrated with maternal and child health services. Unfortunately data collectors only spent one day at each facility

and, as a result, half of selected clinics could not be observed providing services to *new* family planning clients. Using mystery clients would circumvent this problem and address concerns about the Hawthorne effect expressed by the authors. A follow-up study in 1993, focusing on public facilities in Nairobi had greater success with the one-clinic-per-day strategy and was able to observe new clients in 80% of the 46 selected facilities. This assessment of infrastructure and service quality (n=46 providers and 100 family planning clients) did not differ markedly from the Kenyan national study and used similar data collection instruments (Mensch et al., 1994b). A much later study using data from the 2004 Kenya Service Provision Assessment compared quality of care at public versus private facilities (n=323 facilities and 628 clients) and found that private facilities outperformed their public counterparts in several areas including infrastructure, client-provider relations, and client satisfaction, yet no difference was found between facility types in terms of the technical competence of providers (Agha & Do, 2009).

A study conducted in 1992 in Nigeria used all four standard data collection instruments from the situation analysis approach including facility audits (n=178), interviews with providers (n=289), interviews with exiting family planning clients (n=1433), and observations of client-provider interactions (n=395) (Askew et al., 1994). This study measured quality in 181 facilities based on a modified version of the Bruce framework, omitting appropriate constellation of services. Results indicated some room for improvement in all aspects of quality but particularly in information given to clients—only 36% of those accepting a new method were told how to manage side effects. Data collected in Lesotho in 1997–1998 in 38 facilities limited data collection instruments to facility audits and interviews with providers (n=52) (Tuoane et al., 2004). Unfortunately this study did not employ any

standard framework of quality, using indicators that relate primarily to infrastructure or 'readiness' and omitting those related to service quality. Authors emphasized restrictive hours of operation, lack of visual privacy, and provider bias as major obstacles to improving contraceptive prevalence in Lesotho.

Observational studies

Three observational studies assessed the relationship between quality and contraceptive use in countries primarily in east Africa (Arends-Kuenning & Kessy, 2007; Mensch et al., 1994a; Mroz et al., 1999). The first of these studies used data from the 1991/1992 Tanzania DHS (n=5628) to look at the effect of community-level *perceptions* of a facility's quality on contraceptive use among individual community members (Mroz et al., 1999). This study found that perceived quality was one of the more important factors associated with contraceptive use, on par with husband's education and marital status. A subsequent study conducted in Tanzania among more than 7,000 primarily rural women used data from the 1996 Tanzania Demographic and Health Survey and the 1996 Tanzania Service Availability Survey to assess the relationship between quality and use, linking the two data sources by geographic cluster. This study found that two aspects of quality were strongly and significantly associated with contraceptive use: information given to clients (odds ratio=2.37, $p \leq 0.01$) and technical competence (odds ratio=3.66, $p \leq 0.01$) (Arends-Kuenning & Kessy, 2007). However, this study measured information by the availability of educational and promotional material not discussion of side effects with clients and, as such, doesn't tell us anything about the impact of information given—as it is typically defined and understood—on contraceptive use. Similarly problematic, technical competence was an index variable composed of items including running water, electricity, privacy, and staff training. It's

difficult to know if all or only some of these items are significantly associated with use. Last, a multi-country situation analysis conducted in the early 1990s in Nigeria, Tanzania, and Zimbabwe looked at the effect of facility "readiness" on contraceptive use and found only a weak association between infrastructure and use (Mensch et al., 1994a).

Experimental or evaluation etudies

A total of nine studies were identified that evaluate the effectiveness of interventions designed to improve quality of care in sub-Saharan Africa (Ajuwon et al., 2006; Huntington et al., 1990; Kim et al., 1992; Lynam et al., 1993; Sanogo et al., 2003; Valadez et al., 1997; Agha, 2010; Reynolds et al., 2008; Suh et al., 2007). These studies took place in West Africa (Ghana, Nigeria, and Senegal) as well as East Africa (Kenya and Uganda). The majority of these studies evaluated provider trainings, some of which focus on counseling skills while others emphasize technical competence and capacity building. Two of these studies evaluated trainings that introduce self-assessment techniques. In addition to interventions focused on the provider, two studies were identified that evaluate efforts to improve supervisor performance.

A prospective study conducted in 1997–1998 in Senegal investigated whether quality of care was superior at health facilities targeted by a government-sponsored quality improvement effort (Sanogo et al., 2003). Five targeted facilities and five non-targeted facilities—all publicly funded—were selected for inclusion and 1,320 women attending these 10 centers were followed for 16 months; 99% of women were retained over the study period. According to client self-reports, the targeted centers provided significantly better quality in four areas of the Bruce framework: choice, information given, interpersonal relations, and continuity. In addition, those clients receiving high-quality services, based on an index score,

were 1.30 ($p \leq 0.01$) times as likely as those receiving low-quality services to be using a method at follow-up. It would be interesting to validate self-reported measures of quality in this study using third-party observations or mystery clients.

Several studies have assessed the effectiveness of training providers to improve service quality. A 1995 study evaluated technical competence among family planning service providers in Kenya to better understand how well providers retain knowledge and skills following training (Valadez et al., 1997). Two groups were compared, one trained within two months and the other trained one year prior to the study. Investigators discovered that the ability of providers to retain skills was determined by whether they had the opportunity to actually deliver services rather than by the time elapsed since training. From 1999 to 2002, a not-for-profit organization in Nigeria implemented a three-year quality improvement intervention designed to improve performance of personnel working in private health facilities providing reproductive health services (Ajuwon et al., 2006). Personnel were provided with capacity building, supplies, equipment, and educational materials. Between baseline and follow-up, the percentage of providers offering family planning services increased only a small amount, from 40% to 43%. This intervention focused on improvements to facility readiness rather than elements associated with a standardized quality of care framework. In addition, the use of self-completed questionnaires for providers and clients may have led to certain biases best avoided by use of direct observations.

Two studies in the late 1980s evaluated the effect of training programs focused on improving the counseling skills of family planning providers (Huntington et al., 1990; Kim et al., 1992). In the first, conducted in 1988, a group of nurses in Nigeria received a three-day training in interpersonal communication and counseling skills and subsequently their

performance was compared to nurses who had not received this supplemental training (Kim et al., 1992). Provider performance was evaluated by both direct observation (n=39) and client exit interviews (n=480). Trained providers significantly outperformed those without the supplemental training in each of three quality of care elements investigated: interpersonal relations, information giving, and continuity. In addition, clients attended to by providers trained in counseling skills were almost twice as likely ($p \leq 0.001$) to return to the clinic for follow-up visits compared to those attended to by untrained providers. One year later in Ghana, researchers evaluated a similar training program, also using observation and exit interviews, but with a unique difference: 18 women posing as clients visited clinics and evaluated provider performance (Huntington et al., 1990). These mystery clients revealed that trained providers offered more complete information but, like the untrained providers, often treated younger clients with disrespect. The use of mystery clients in the Ghana study may have helped avoid the Hawthorne effect possibly present in the Nigeria study.

Two studies included here consider the effectiveness of provider trainings that use self-assessments (Agha, 2010; Lynam et al., 1993). In this context, self-assessment refers to trainings in which providers are encouraged to identify and solve quality-related problems at their facility. A study conducted in 1990–1991 in four countries in sub-Saharan Africa (Ghana, Nigeria, Kenya, and Uganda) used follow-up visits, client-flow analysis, and staff interviews at 11 facilities to evaluate a self-assessment intervention implemented 5 to 15 months earlier (Lynam et al., 1993). Several family planning sites reported reductions in wait time (as determined by pre- and post–client-flow analysis), increased attention to ensuring privacy, and increased client satisfaction; it is noteworthy that increases in client satisfaction were based on provider—not client—reports. Interviews with clients and client-provider

observations might have provided more valid data for this analysis. A more recent self-assessment study using data from 2006 in Uganda focused on reproductive health services provided by private-sector midwives (Agha, 2010). A facility audit, midwife interviews, and observations of client-provider interactions were used to assess quality at baseline and follow-up after 276 midwives were randomly assigned to experimental or control groups. Differences in quality between the control and experimental groups were only seen in facilities in which supervisors also received training. Changes were primarily seen in facility readiness, including infrastructure and equipment, days of open for business, and guidelines/job aids. Aspects of quality also showed improvement, including interpersonal relations and information given. Although quality improved in both of these studies, nothing is known about the effect of these improvements on contraceptive behavior.

Two studies were identified that evaluated the effectiveness of training interventions for supervisors (Reynolds et al., 2008; Suh et al., 2007). In the first evaluation, 60 supervisors in Kenya were randomly assigned to intervention and control groups and several data collection tools—interviews with supervisors, providers, and exiting clients; facility audits; and client-provider observations—were used before and after the intervention to evaluate effectiveness (Reynolds et al., 2008). Significant improvements comparing treatment and control groups were noted in aspects of quality, including interpersonal relations and information given, as well as facility readiness including running water, privacy, and infection prevention. Unfortunately, no significant changes were seen in client satisfaction, casting doubt on the hypothesis that the intervention would lead to changes in contraceptive behavior. Given the cost of the training (more than $2,000 per supervisor), less expensive strategies with proven health benefits may receive priority. In the second

evaluation of supervisor training, service quality was evaluated in 45 health facilities in Senegal in 2005 following two rounds of supervision by trained supervisors (Suh et al., 2007). Supervisor checklists were used to assess quality in four areas, including infrastructure, management, record keeping, and technical competence. Although improvements were seen in all four areas, no information was provided on the statistical significance of the results or any outcomes related to contraceptive use or continuation.

Summary of quality of care in sub-Saharan Africa

Assessments of quality in sub-Saharan Africa conducted primarily in Kenya in the 1990s indicate significant room for improvement in terms of both quality of care and facility readiness. Observational studies designed to identify associations between quality of care and contraceptive use found strong associations between perceptions of quality at the community level and use and also identified two aspects of quality to be significantly associated with use: information given and technical competence. A multi-country study found only a weak association between facility readiness and use. Interventions to improve quality in both East and West Africa have been moderately successful; government sponsored quality improvement efforts, provider trainings in both counseling and technical competence, and supervisor trainings have all proven successful in their efforts to improve quality. The impact of these quality improvements on contraceptive behavior is less clear. Only one study, in Senegal, demonstrated a significant improvement in continuation among clients attending health facilities targeted by government-sponsored efforts to improve quality.

2. Quality of Care in North Africa, the Middle East, & Eastern Europe

Descriptive studies

A total of eight studies were identified that describe the quality of family planning services in North Africa and the Middle East (Al-Qutob and Nasir, 2008; Brown et al., 1995; Mohammad-Alizadeh et al., 2009a; Mohammad-Alizadeh et al., 2007; Mohammad-Alizadeh et al., 2009b; Nakhaee and Mirahmadizadeh, 2005; Swar-Eldahab, 1993; Khademloo et al., 2008). The majority of these were conducted in Iran but three studies also took place in Jordan, Morocco, and Sudan. Only two of these studies, conducted in Morocco and Iran, used some or all of the standard data collection instruments included in the situation analysis approach to measure quality of care as defined by the Bruce framework. Two other studies in Sudan and Iran employed quantitative techniques such as household interviews or exit interviews but failed to tie their results to any established framework of quality. The remaining three studies, in Iran and Jordan, used focus group discussions to assess quality according to both providers and clients. A final study considered the role of side effects in discontinuation of the copper IUD among women in Iran.

A situation analysis was conducted in Morocco in 1992–1993 in 49 facilities using all four standard data collection instruments: facility audits (n=49), observations of client-provider interactions (n=47), and interviews with both exiting clients (n=293) and service providers (n=165) (Brown et al., 1995). Data was collected on all six aspects of quality in the Bruce framework, as well as facility readiness. Results indicated several strengths including mechanisms to encourage continuity, well trained staff, and availability of basic equipment, as well as weaknesses including little choice of methods and lack of educational materials for counseling. Notably, there were large discrepancies between exit interviews and observations

for data pertaining to whether the client is treated politely, whether all appropriate methods were offered, and whether the client received her method of choice. For each of these three indicators, the mean score for family planning service quality was much higher when reported by an observer as compared to the exiting client. A more recent situation analysis was conducted in Iran in 2005, using observations (n=469) and exit interviews (n=416) at 34 facilities (Mohammad-Alizadeh et al., 2007). Data was collected on elements of quality including choice of methods, client-provider interaction, information given, and provider competence, as well as client satisfaction and knowledge. Results showed quality was low in several areas, including choice of methods (new clients frequently not offered their preferred method due to false interpretation of medical guidelines), information given (especially with respect to information on side effects), and client-provider interaction. In addition, clients were not satisfied with the level of privacy or the ability of providers to address problems, indicating problems with facility readiness and provider competence. On average, clients were treated with respect. A facility audit and provider interviews may have provided additional information about the service infrastructure for the Iranian situation analysis.

Among quantitative studies lacking standard definitions and measures of quality, a study using data collected in 1991 in Sudan investigated barriers to contraceptive use with household interviews of 305 married women (Swar-Eldahab, 1993). Of those women who did not want to become pregnant and were not using contraception (n=91), nearly half reported fear of side effects as their main reason for not using a method. In a more recent study in 2003 in Iran, approximately 900 women exiting 15 health centers consented to participate in a study of client satisfaction (Nakhaee & Mirahmadizadeh, 2005). Clients were least often dissatisfied with aspects of the client-provider relationship including treating the

client politely, answering client questions, and listening carefully to clients. Concerns about method choice, privacy, and information given to clients rated the highest in terms of client dissatisfaction. In both of these studies additional data collection instruments may have provided more complete information about the quality of services provided.

Three studies used qualitative methods to assess quality of care, the first of which was conducted in Jordan in 2004 using focus group discussions with physicians, nurses, and midwives from 50 healthcare facilities (Al-Qutob & Nasir, 2008). Providers reported poor supervision, unequal treatment of providers with respect to educational opportunties, inadequate basic equipment and supplies, and client overload as major barriers to providing optimal services. A subsequent study using focus group discussions with providers in Iran in 2005 found similar results—providers were frustrated by poor supervision, lack of continuing education opportunities, and a dearth of educational and counseling materials (Mohammad-Alizadeh et al., 2009a). Discussions with providers may help highlight ways in which facilities are unprepared to offer high-quality services. A third qualitative study used focus group discussions with 54 current or ever contraceptive users at public facilities in Iran in 2006 and noted sup-optimal quality of care in terms of choice of methods and information given, as well as inadequate privacy (Mohammad-Alizadeh et al., 2009b).

Finally, a randomly selected cohort of 400 TCu380A intra-uterine device (IUD) users in Iran were followed for five years, beginning in 1999, to calculate discontinuation rates and document reasons for discontinuation (Khademloo et al., 2008). Approximately 20% of women had discontinued by the end of two years and more than 80% discontinued by the end of five years. The most commonly cited reason for discontinuation was occurrence of side effects, suggesting the need for improved counseling.

Observational/Multivariate Studies

Egypt and Morocco contributed four studies investigating the association between quality of service delivery or service environment and contraceptive behavior (Ali, 2001; Hong et al., 2006; Magnani et al., 1999; Steele et al., 1999). In two of the studies the outcome of interest is contraceptive use of one or more methods; the other two focus on continuation or both adoption and continuation of available methods. A fifth study, in Iran, looks at factors potentially supporting or inhibiting the provision of high-quality services (Shahidzadeh-Mahani et al., 2008).

Two studies of quality from this region focus on the outcome of contraceptive use. In the first, conducted in Morocco in 1992–1995 among a sample of 910 women, researchers investigated the association between the supply environment and use of all available methods (Magnani et al., 1999). Aspects of quality included in this analysis include number of nearby facilities, number of trained staff, method availability, and infrastructure, including presence of water, electricity, and an examination table. Training ($p \leq 0.01$) and availability of methods ($p \leq 0.05$) were significantly, but weakly, associated with contraceptive use. A more recent study in Egypt used individual-level data on 8,445 women from the 2003 DHS and linked these women to a family planning facility (n=602) within 10 kilometers to determine the role of quality in adoption of the IUD (Hong et al., 2006). Four elements of quality were measured: counseling, examination room, choice of methods, and training and supervision. Women linked to public facilities that scored high on an index of quality combining these four elements were 1.36 ($p < 0.01$) times as likely to use an IUD as those linked to facilities that scored low. There was no association between distance to the nearest facility and IUD use. Considered individually, counseling and a well-supplied examination room appeared to

have the strongest association with IUD use at public facilities. This association was not seen at private facilities.

An analysis using Egypt 1988 DHS individual-level data linked to facility-level data by cluster measured quality of care by the percentage of family planning doctors who were female, competence and training of family planning staff, and range of methods. This study found that women linked to facilities with a "below average" number of available methods had a *decreased* risk of discontinuing pill use at 24 months (adjusted risk ratio = 0.70, 95% CI (0.54, 0.91), after controlling for demographic characteristics and fertility motivations (Ali, 2001). No association was found between the other quality measures and use. A study using DHS panel data from 1992–1995 measured contraceptive adoption and pill continuation among a sample of 3,324 Moroccan women (696 of whom were pill users) and found that a public health center within 10 kilometers ($p \leq 0.05$) or the availability of three or more methods at the nearest facility ($p \leq 0.05$) were significantly associated with modern-method adoption (Steele et al., 1999). In addition, among women who discontinued for reasons including spousal disapproval, inconvenience, ineffectiveness, cost, and access, there was a weak but significant association between obtaining pills from a non-governmental source and continuation.

Last, a 2006 study in Iran sought to understand reasons for low-quality services among a sample of 25 facilities, 396 family planning clients, and 83 providers (Shahidzadeh-Mahani et al., 2008). Quality was measured using client exit interviews and personnel files to complete a checklist of 27 items that fell into four categories: history taking, physical examination, choice of methods, and counseling. Factors contributing significantly to the delivery of high quality services included provider experience (odds ratio=1.9, CI=1.2, 3.0),

low caseload (OR=3.7, CI=2.0, 6.7), and being a new client (OR=4.2, CI=2.6, 6.7). Ironically, providers without college degrees had significantly greater odds of offering high quality service (OR=6.7, CI=4.0, 10.8) compared to those with a college degree. Observations, interviews with providers, and/or facility audits may have provided additional information or validated some information collected from clients.

Evaluation studies

Two studies in Egypt and Turkey were conducted to assess the impact of efforts to improve the quality of family planning services (Hong et al., 2011; Ozek et al., 1998). On-the-job trainings conducted at 16 clinics with 130 service providers in Turkey between 1995 and 1998 were assessed using observations of the client-provider interaction (Ozek et al., 1998). Training was provided over a course of five visits during the three-year period and included staff meetings, self-assessment, role plays, demonstration, coaching, and feedback. Measures of quality included national standards for counseling, IUD insertion, privacy, and infection prevention. Although the percentage of providers adhering to national standards increased throughout the five visits, it is impossible to know from the information provided by the authors whether or not the noted improvements were significant or attributable to the trainings. In the second study, a national quality improvement program was implemented in Egypt from 1995 to 2000, focusing on improved training and supervision (Hong et al., 2011). Facility audits, provider interviews, and observations in the 2004 Egypt SPA survey were used to compare the quality of services provided at intervention and non-intervention facilities (n=637) four years after the end of the program. Measurements of quality included method choice, counseling, supplies and privacy of examination room, and supportive management. Even after controlling for facility type and location, the facilities successfully

targeted by the government program significantly outperformed other facilities across all measures of quality. Unfortunately, neither of these assessments considered the effect of quality improvements on contraceptive outcomes.

Summary of quality in North Africa, the Middle East, & Eastern Europe

Descriptive studies in North Africa and the Middle East conducted between 1991 and 2006 consistently document deficiencies in quality with respect to method choice, information given, and lack of privacy. Although some studies indicated adequate quality with respect to the client-provider interaction, those not relying solely on client exit interviews—which are known to be subject to courtesy bias—found room for improvement in this aspect of quality as well. Multivariate studies of the association between quality and contraceptive behavior found items including method choice, counseling, training, supervision, and facility readiness to be weakly associated with method use. In terms of contraceptive continuation, one study found that method choice had a negative effect on continuation. Two studies provide moderate evidence of the success of quality improvement activities but both failed to provide information on whether such improvements are associated with changes in contraceptive behavior.

3. Quality of Care in Asia

Descriptive studies

Several studies have assessed the quality of family planning service delivery in Asian countries using cross-sectional data and descriptive statistics (De Silva and Fonseka, 2008; Kaufman et al., 1992; Koenig et al., 2000; Kumar et al., 1999; Simmons et al., 1988; Whittaker, 1996; Whittaker et al., 1996; Schuler et al., 1985). Five of these studies use quantitative methods and were conducted in China, Sri Lanka, Bangladesh, India, and Nepal.

Two studies use qualitative methods to assess quality in Bangladesh and Thailand and one paper provides a literature review of empirical evidence on quality of care in India. One additional study looks at poor quality as a potential cause of unmet need. A review of these nine studies is provided below. Although two of the quantitative studies rely on more widely approved data collection instruments adapted from the situation analysis, the two others use less widely known indicators of quality. Some studies attempt to measure most of the six elements of quality included in the Bruce framework while others focus on only one or two aspects such as choice of methods or information given to users. Most descriptive studies focus on rural populations and the majority of studies focus on public rather than private facilities.

Three of the quantitative studies included in this review used one or more data collection instruments from the situation analysis approach. The first, conducted in China in 1987, investigated three elements of quality from the Bruce framework—choice of methods, information given to users, and provider competence—by conducting interviews with a representative sample of 318 married women living in select rural areas (Kaufman et al., 1992). Provider interviews were also conducted with a sample of 57 service providers. Results indicated deficiencies in quality for all three elements; of note, although most providers reportedly counseled clients on side-effects, very few women reported receiving this information. This discrepancy could be due to poor recall on the part of the client or deliberate misinformation on the part of the provider. The second study to use a situation analysis approach was conducted in Sri Lanka[3] and also revealed suboptimal levels of quality. Investigators used facility audits (n=23), client exit interviews (n=593), and direct

[3] Nowhere in the paper do the authors indicate when the data were collected.

observations of client-provider interactions (n=242) to assess the service quality (in terms of method choice, information, interpersonal relations, and follow-up mechanism), service infrastructure, and client satisfaction in a representative sample of 23 public family planning facilities in the district of Colombo (De Silva & Fonseka, 2008). Interestingly, although results indicated deficiencies in all elements of service quality except method choice, as well as most aspects of service infrastructure, most clients were satisfied with their visit. This conundrum could be explained by low expectations or by the courtesy bias discussed previously. A study conducted in 1982 in Nepal prevented courtesy bias by sending six couples and two individuals posing as clients from a variety of socio-economic backgrounds to 16 family planning clinics in Kathmandu (Schuler et al., 1985). Use of simulated clients in this study revealed lack of accurate information across all classes of clients, with especially poor quality provided to the lowest socioeconomic group in terms of completeness of information and attitude and bias of the provider. Authors suggest combining the use of mystery clients with observations and exit interviews to better compare findings.

The other two quantitative studies in this review used their own structured instrument rather than an adaptation of the situation analysis approach, making it difficult to place many of their results in the perspective of other studies on quality of care due to variation in choice of indicators. For example, a study in rural Bangladesh interviewed approximately 10,000 married women in 1989–1990 to assess quality from the client's perspective, measuring technical competence by whether helpful information was received when encountering a problem and measuring client-provider relations by whether the client found the provider sympathetic to their needs (Whittaker et al., 1996). Results once again indicated low levels of quality. Unfortunately, the authors failed to ask clients if they had received information on

side effects and correct use of their method, if they felt they had been treated with respect, if they were offered a follow-up appointment, or whether family planning service provision was ever integrated with additional services such as HIV testing and counseling or child health. As such, it's difficult to compare results of this study with others using more standard measures. In addition, the lack of multiple data collection methods such as observations or provider interviews makes it difficult to assess the reliability of client responses. Similarly, a cross-sectional study in 1999 of 600 ever-married women in India measured quality in terms of method mix, method failure, and perceived side effects and reported poor results for all three: 95% of current users (n=236) had been sterilized, and perceived side effects and method failure were responsible for more than half of discontinuation among ever-users (n=351) (Kumar et al., 1999).

Two studies used qualitative methods to assess quality of care in Bangladesh and Thailand. The first is a 1988 study in rural Bangladesh that conducted 65 client-provider observations involving 22 female family planning workers to better understand the role of these workers in addressing fear of side effects and religious and familial barriers (Simmons et al., 1988). Although conducted prior to the development of the Bruce framework or the situation analysis, the authors present seven cases highlighting the need for service delivery that goes beyond convenient contraceptive supply and is able to address religious and spousal barriers and reduce fear of side effects. A subsequent ethnographic study in a rural village in Thailand extends the Bruce framework to include gender, class, and ethnicity as factors influencing the client-provider relationship and subsequent quality of care (Whittaker, 1996). The immense social distance found between client and provider is perhaps best described by the following excerpt: "An Islaan village woman was told by a nurse to go to the bathroom

and clean up before seeing the doctor. One hour later they realized that she hadn't returned. So they went to the toilets and there she was, cleaning the toilets" (Whittaker, 1996). Clients reported disrespectful treatment including verbal abuse and experienced a consistent lack of privacy. Although these two studies cannot provide a nationally representative assessment of quality of care in rural Bangladesh or Thailand, the anecdotal evidence here suggests that the need for more client-centered services.

A paper from 2000 synthesized empirical evidence on quality of care in India, primarily from unpublished working papers and reports, to assess the impact of a shift in policy toward more client-centered practices in public facilities and categorized their findings according to quality of care elements in the Bruce framework (Koenig et al., 2000). The review revealed that despite a national policy promoting availability of a wide range of contraceptive methods, countless studies found clients are rarely informed about more than one method and providers often stress female sterilization. This review of evidence additionally found that information given to clients is often inadequate, negative interpersonal dynamics exist particularly between providers and poor women and those attending sterilization camps, and technical competence of providers in terms of both knowledge and practice were low. The review also noted an absence of follow-up mechanisms in many places. Authors cite an orientation toward the achievement of demographic targets—"an over-riding concern for numbers"—as a key barrier to improved service quality in India (Koenig et al., 2000).

A final study using data collected in 1993 in urban and rural locales in the Philippines explored causes of unmet need (Casterline et al., 1997). This study estimated total unmet need for family planning among the sample to be 16% and showed the significance of

quality-related factors such as fear of side effects and spousal and societal disapproval in explaining unmet need and the relatively less important role of geographic access. Authors suggested changes in service delivery practices that would allow greater attention to these barriers to contraceptive use.

Observational/multivariate studies

Several observational studies have shown an association between quality of care and method use or discontinuation in Asian countries (Do & Koenig, 2007; Gubhaju, 2009, Khan, 2001; Khan, 2003; Koenig et al., 1997; Pariani et al., 1991). Studies identified for this section of the review took place in four countries: Bangladesh, Vietnam, Indonesia, and Nepal. Most of these six studies use longitudinal or panel data, although two appear to use cross-sectional data. Unless otherwise stated, all studies of discontinuation rely on retrospective self-reports of contraceptive use and are therefore subject to recall bias. Only one of the studies looks at multiple elements of the quality of care framework; the other five measure method choice, clients' perceptions of quality, occurrence of side effects, or service infrastructure. As such, most measures of quality in these studies are derived from individual interviews rather than the facility-level instruments described in the situation analysis approach.

The most thorough and also most recent investigation of quality in Asia was a study in Nepal using national survey data from 2003, which measured three elements from the quality of care framework: choice of methods, an index score for information given to users, and interpersonal relations defined as one-to-one counseling (Gubhaju, 2009). This study looked at the effect of these elements on 24-month continuation rates of oral contraceptives and injectables in a sample of 2,764 women using a proportional hazards model and found

weak but significant relationships between two components of quality of care—information and interpersonal relations—and the risk of discontinuation. The most important factor contributing to discontinuation in this sample, however, appeared to be service at a government rather than private facility (risk ratio: 1.57, $p \leq 0.001$).

Several studies used a much more narrow definition of quality in their studies (Do & Koenig, 2007; Koenig et al., 1997; Pariani et al., 1991). For example, a study using 1989–1991 data from rural Bangladesh looked at the relationship between women's perceptions of quality based on their experiences with female family planning workers and subsequent adoption or continuation of a contraceptive method, using prospective data from 7,800 women (Koenig et al., 1997). Twenty-eight percent of women in the survey perceived good quality of care to be provided most or all of the time and women perceiving a high level of quality were significantly more likely to adopt a method (risk ratio: 1.27, $p \leq 0.05$) or to continue use (risk ratio: 1.41, $p \leq 0.001$), controlling for other factors. Another study, using a sample of 1,945 new family planning clients from both rural and urban areas of Indonesia in 1987–1988, found a strong association (regression coefficient: -1.16, $p \leq 0.001$) between whether or not women were provided with their method of choice and subsequent discontinuation one year later (Pariani et al., 1991). Last, a study in Vietnam focused on service infrastructure using a combination of data from the 1997 DHS and a health facility questionnaire (Do & Koenig, 2007). This study found that higher quality family planning services at community health centers, as measured by an index of basic items, method mix, and trained staff, were associated with a significantly lower likelihood of first- and all-method discontinuation of three methods (the IUD, pills, and condoms) among a sample of

2,463 ever-married female contraceptors, although the magnitude of this effect was small (regression coefficient: -0.16, $p \leq 0.10$).

Finally, Khan, a researcher from the University of Dhaka in Bangladesh, has conducted two studies investigating factors contributing to discontinuation of oral contraceptives using data from a survey of compliance among oral contraceptive (OC) users in rural Bangladesh in 1995–1996 (Khan, 2001; Khan, 2003). The survey included 1,400 married women who were past or current OC users. In multivariate analysis, women with side effects were 1.39 (95% CI: 1.10–1.75) times as likely as women without side effects to discontinue, after adjusting for other factors (Khan, 2001). Although Khan found several other factors to influence discontinuation, he did not look specifically at the elements included in the Bruce framework but instead focused on aspects such as religion and spousal approval. Similar results were reported in both studies.

Experimental/evaluation studies

Perhaps the best way to assess the importance of quality in determining contraceptive behavior is through the analysis of impact studies. Five studies were identified that assessed quality of care interventions in China, Indonesia, and the Philippines (Brown et al., 2010; Costello et al., 2001; Jain et al., 2012; RamaRao et al., 2003; Kim et al., 2000). Interventions conducted in Indonesia and the Philippines focused on improvements to interpersonal relations while in China efforts were made to increase method choice.

The three studies in the Philippines, all conducted by researchers at The Population Council, used data from a 1997–1998 longitudinal intervention with a quasi-experimental design in the Davao del Norte province of the Philippines (Costello et al., 2001; Jain et al., 2012; RamaRao et al., 2003). This intervention focused on improvements to the client-

provider relationship in a sample of 1,728 new family planning users at 80 facilities. Service providers in the public sector in the experimental municipalities were trained to improve listening skills and to provide more complete information to clients. Supervisors were also trained in facilitative management techniques. Provider interviews (n=100) were used to assess changes in provider knowledge of side effects and warning signs for the pill, IUD, and injectable contraception before and after the intervention. Interviews with the panel of new users up to six months after their initial facility visit were used to assess method choice, information given to user, interpersonal relations, and continuity mechanisms. In addition, whether or not the client's reproductive goals were assessed was measured. Provider competence and appropriate constellation of services were not measured in this analysis, nor did the study employ additional data collection methods such as observations or facility audits to verify or supplement the information provided by providers and new clients. This may have been particularly important, given the potential for recall bias among new users interviewed six months after their facility visit.

The earliest study published on data from this intervention found significant improvements in the knowledge of warning signs for all three methods by providers in the experimental group but little change in knowledge of side effects, compared with control group providers (Costello et al., 2001). Needs assessment, information, and respectful treatment were significantly greater for new users in the experimental group compared to those in the control group. The intervention appeared to have less influence on method choice and follow-up appointments. A subsequent study used multivariate analysis to estimate the effect of the quality improvements on 12-month continuation rates and found the odds of contraceptive use at one year follow-up among women receiving high-quality

services was 62% higher ($p \leq .01$) than the odds of contraceptive use among those with low-quality care, controlling for other factors (RamaRao et al., 2003). The most recently published paper on this data, however, found no statistically significant difference in contraceptive continuation between the experiment and control groups, despite the ability of the data to demonstrate "the validity of all the causal links in the chain" as shown in the two previous studies (Jain et al., 2012). This may be the result of women in the control group already receiving fairly good quality of care or perhaps the improvements in quality seen from the intervention were not large enough to cause contraceptive behavior in the two groups to differ significantly.

A study conducted in 1998 in Indonesia investigated the impact of four months of post-training reinforcement mechanisms on facilitative communication and information giving among a sample of 201 providers randomly allocated to control and treatment groups using provider and client interviews (n=1,210), facility audits (n=170), and audiotapes of client-provider interactions (Kim et al., 2000). Although providers in the treatment group showed significant improvement compared with providers in the control group, client satisfaction increased only a small amount over the study period. A much less comprehensive intervention in China to increase contraceptive method choice was evaluated using data collected in 2003 (n=980) and again in 2005 (n=941), with analysis for this study restricted to new family planning users (Brown et al., 2010). Women at endline were 0.56 (95% CI: 0.42, 0.76) times as likely as women at baseline to be using a policy-driven method such as the IUD or sterilization, controlling for other factors. No additional elements of quality were analyzed in this study.

Summary of quality in Asia

Descriptive and anecdotal evidence from numerous countries in Asia indicate poor quality of family planning service delivery in the late 1980s and 1990s and a need for providers to address such critical issues as fear of side effects and familial disapproval. However, only one paper considered the role of continuity of care and none investigated constellation of services. Observational studies conducted as recently as 2003 found a small but significant association between contraceptive adoption/continuation and some elements of quality such as high levels of information and interpersonal relations. Perceptions of quality on the part of the client, service infrastructure, receiving their choice of methods, and perceived side effects were also related to contraceptive behavior to varying degrees. Most surprisingly, despite the ability of an intervention in the Philippines to improve both quality and continuation, significant differences were not found between control and experiment groups in terms of contraceptive continuation. A provider training in Indonesia resulted in only small improvements in client satisfaction while an intervention in China was moderately successful in promoting a more balanced mix of contraceptive methods.

4. Quality of Care in Latin America and the Caribbean

Descriptive studies

A total of seven studies describe the quality of family planning service delivery in six countries in Latin America and the Caribbean: Bolivia, Brazil, Chile, Haiti, Honduras, and Jamaica (Bender et al., 2008; D'Antona Ade et al., 2009; Hardee et al., 2001; Maynard-Tucker, 1994; Schuler et al., 1994; Vera, 1993; Barden-O'Fallon et al., 2009). Two studies included in this section use simulated or "mystery" clients in an effort to obtain an unbiased estimate of quality as defined by the Bruce framework, avoiding the Hawthorne effect

common in many studies with third-party observers (Hardee et al., 2001; Maynard-Tucker, 1994). Three other studies use qualitative methods, including photo narratives and in-depth interviews, to identify deficiencies in quality or determine client perspectives on the necessary components of quality of care (Bender et al., 2008; Schuler et al., 1994; Vera, 1993). Two final studies investigates factors contributing to discontinuation among women in rural Brazil (D'Antona Ade et al., 2009) and Honduras (Barden-O'Fallon et al., 2009).

Two studies made use of a method of data collection thought to ensure highly reliable data on service quality: the simulated or "mystery" client. A one-year study beginning in 1990 in 14 health facilities in Haiti employed Haitian housewives posing as family planning clients to assess elements of quality including information given, provider competency, client-provider interaction, and follow-up mechanisms, as well as facility readiness (Maynard-Tucker, 1994). Using a quantitative scoring system, mystery clients reported deficiencies in all elements of quality included in the study, most commonly noting an inconsiderate attitude on the part of the provider—information that may not have emerged from standard third-party observations or client exit interviews. It may have been insightful to compare mystery client observations with information obtained from provider interviews. Just a few years later, in 1995, a similar study was conducted in Jamaica using 20 simulated clients visiting 50 facilities and 199 providers (Hardee et al., 2001). Measures of quality included choice of methods, information given, provider competence, privacy, and wait time. Results found room for improvement among all elements of quality studies, with agreement between providers and clients especially strong on the need for improved privacy. Providers and clients tended to particularly disagree about the type and adequacy of information provided.

Three studies in the 1990s used qualitative methods to assess quality of family planning services (Bender et al., 2008; Schuler et al., 1994; Vera, 1993). One study took place at a private facility in Santiago, Chile, in 1991 and used in-depth exit interviews with 60 low-income family planning clients to document client perspectives on defining quality of care (Vera, 1993). Clients identified the need for adequate information and respectful treatment as well as facility cleanliness and, on average, responses aligned with the Bruce framework. In-depth interviews with 30 urban Bolivian women took place in 1993 to better understand reproductive intentions and barriers to contraceptive use (Schuler et al., 1994). Most of the women in the study sample had been exposed to negative rumors about family planning, resulting in fear of side effects as well as fear of service providers. Few participant partners supported the use of modern methods and instead relied on periodic abstinence to avoid frequent pregnancies. Authors suggested improvements in service quality (such as counseling to ensure the calendar method is used correctly) are necessary to combat mistrust of family planning and increase demand for services. Another study in Boliva, conducted in 1999, used photo narratives in an effort to validate the data collected through interviews with 20 exiting family planning clients (Bender et al., 2008). Nuances expressed during the more participatory approach to measuring quality suggests that exit interviews do not always capture respondents' true perception of the quality of care they have received.

Last, among studies investigating factors contributing to contraceptive discontinuation, a 2003 study used interviews with a representative sample of nearly 400 women living in a rural state in Brazil (D'Antona Ade et al., 2009). More than one-third of the sample was using female sterilization; of the 116 women who previously used pills or injectables, the majority discontinued due to health concerns. The most common reason for

not using reversible methods among women of reproductive age was fear of side effects. Similarly, a study in Honduras using focus group discussions and baseline survey data among 73 women in 2006 found between 44% and 72% of injectable, IUD, and pill users had experienced side effects with their current method, yet more than half of women had not been informed by their provider of the possibility of side effects or how to manage them during their appointment (Barden-O'Fallon et al., 2009).

Observational studies

A total of five studies investigated the relationship between quality of care and contraceptive behavior or decision making in Peru, Jamaica, and Honduras (Fox, 2001; Henry-Lee, 2001; Mensch et al., 1996; Mensch et al., 1997; Barden-O'Fallon et al., 2011). In Peru, data from the 1991–1992 DHS individual survey was linked to a situation analysis from 1992 at the cluster level. Using this data, investigators reported on the association between quality and use (Mensch et al., 1996) as well as achievement of reproductive goals (Mensch et al., 1997). In Jamaica, a longitudinal survey was conducted during the 1998 calendar year and data from this survey subsequently informed studies looking into factors associated with contraceptive discontinuation (Fox, 2001; Henry-Lee, 2001). Finally, a more recent study in Honduras assessed the impact of service quality on continuation (Barden-O'Fallon et al., 2011).

Two studies offer insight into the relationship between quality and contraceptive behavior in Peru. Both of these studies used individual-level DHS data from 8,144 women linked by cluster to a 1992 situation analysis. The 1992 Peru situation analysis included all four of the standard data collection instruments: facility audits (n=848), observations of client-provider interactions (n=599), and interviews with provider (n=809) and clients

(n=599). In the first study, the likelihood of using a contraceptive method was nearly the same (odds ratio=1.03, 95% CI=1.00, 1.07) regardless of the quality of service delivery, based on an index of quality of care variables aligning with the Bruce framework, after controlling for individual and regional-level confounders (Mensch et al., 1996). A subsequent study using the same data plus a 1994 follow-up study with 1,093 women found that the probability of an unintended pregnancy between baseline and follow-up was significantly lower for women receiving a high quality of care, controlling for facility and individual characteristics (Mensch et al., 1997). However, once regional variables were included in the model, quality of care no longer had a significant effect on unintended pregnancy. Similar findings occurred in 2006–2007 in Honduras in a study of contraceptive discontinuation using panel data from 671 women (Barden-O'Fallon et al., 2011). Although the experience of certain side effects was significantly associated with discontinuation, no association was found between the quality of services at baseline and the hazard of discontinuation after controlling for demographic characteristics and fertility motivations.

Two studies used data collected in 1998 in Kingston, Jamaica, where exit interviews and focus group discussions were conducted among a sample of 463 women attending eight public facilities. A total of 323 women participated in follow-up interviews (30% loss to follow-up) in their homes during a one-year period. Nearly 60% of sampled women discontinued the method they adopted at baseline within one year; 48% experienced side effects; 53% did not receive counseling on potential side-effects. One study from this data found that women who did *not* report side effects were three times as likely as those reporting side effects to continue their method (odds ratio=3.3, CI=1.7, 6.3, $p \leq 0.001$), after controlling for individual-, method-, and facility-level factors and only 48% of women

experiencing side effects were still using any method 12 months later, compared to 66% of women who did not experience side effects (Fox, 2001). Use of injectables (OR=2.9, CI=1.7, 5.1, $p \leq 0.001$) was also strongly associated with continuation. A second study using this data reported similar findings (Henry-Lee, 2001). Neither study measured aspects of quality considered necessary for the management of side effects such as information given to the user.

Intervention/evaluation studies

Two studies were identified that evaluated the effect of supervision interventions on quality of care in Mexico and Guatemala (Kim et al., 2002; Vernon et al., 1994). The first study, conducted in 1991–1993 in Guatemala among 159 experimental and 25 control facilities, used pre- and post-intervention measures in both control and experimental groups to ascertain the impact of alternative supervision and self-assessment on quality of care and client satisfaction, using provider and client interviews (Vernon et al., 1994). Few differences were seen between the control and experimental groups in terms of client satisfaction, with clients in both groups reporting that they were satisfied or very satisfied with services. Implementation of the self-assessment intervention led to the identification and resolution of approximately 275 quality-related problems over the study period. It is unknown whether these changes influenced the contraceptive behaviors of clients. The second study, conducted in Mexico in 1998, assessed an intervention in which doctors (n=28) in experimental and control clinics were supervised by managers trained in interpersonal communication and counseling for a four-month period (Kim et al., 2002). Doctors audiotaped their counseling sessions with patients at baseline and post-intervention and blinded experts used a validated system to assess the tapes for facilitative communication, information giving, and active

communication by patients. Doctors in the intervention group outperformed others in facilitative communication ($p \leq 0.001$) and information giving ($p \leq 0.001$) even after controlling for several factors. Although these results are promising, the study was not designed to specifically measure the impact on family planning quality or subsequent contraceptive behavior.

Summary of quality of care in Latin America and the Caribbean

In summary, the use of mystery clients in Jamaica and Haiti provided unbiased assessments of quality that indicated significant room for improvement across all aspects of quality. These studies also indicated discrepancies between mystery client and provider reports, highlighting the risk of relying on provider interviews alone. The use of photo narratives in Bolivia also indicated the potential for obtaining unreliable data from client exit interviews. Additional studies indicated that a fear of side effects in Boliva, Brazil, and Honduras may significantly contribute to non-use of hormonal methods and providers continue to omit information on side effects from counseling sessions. Regarding assessments of quality and contraceptive behavior, a rigorous situation analysis in Peru found no association between quality of care and contraceptive use or the achievement of reproductive goals while a smaller study in Jamaica found lack of side effects contributed significantly to continuation. Two experimental studies in Guatemala and Mexico appear to have improved performance of providers and supervisors but little is known about how such interventions impact contraceptive behavior.

5. Multi-Country Studies

Four multi-country studies conducted since 2001 cover a range of quality-related research topics (Blanc et al., 2002; Halpern et al., 2011; Leon et al., 2007; Ross et al., 2001).

The first of these studies, published in 2001, investigated the association between method choice and contraceptive use, using data on method availability and contraceptive prevalence in 64 developing countries over the period from 1982 to 1999 (Ross et al., 2001). Throughout the study period, contraceptive prevalence improved with increased method availability. A few countries (Egypt, Cuba, and Jamaica) achieved relatively high contraceptive prevalence despite low availability, indicating additional factors may be at play. A year later, a study of 15 developing countries revealed that 12-month rates of discontinuation ranged from 20% in Zimbabwe to 63% in the Dominican Republic, with 40–60% of discontinuations due to quality-related reasons (Blanc et al., 2002). The study also found no association between discontinuation and method access and availability.

Another multi-country study, published in 2007, used simulated clients in Peru, Rwanda, and India to assess the degree of courtesy bias in client exit interviews (Leon et al., 2007). More than 90% of all simulated clients in Peru and Rwanda felt they were treated with respect, however only 75% of clients in Burma, India, said the same, indicating regional variation in the potential for courtesy bias. Finally, a recent meta-analysis of randomized controlled trials in both developed and developing countries investigated the success of interventions designed to improve continuation of hormonal methods (Halpern et al., 2011). Eight trials were identified, only one of which—involving in-depth counseling for women using injectable contraception—found a statistically significant difference in continuation rates between control and intervention groups. The lack of evidence for such quality improvement efforts may have been influenced by study design flaws including small sample size and high loss to follow-up.

C. A Summary of Quality of Care in All Regions

In summary, numerous descriptive studies in developing countries from all regions of the world indicate room for improvement in all aspects of quality of care provided to family planning clients. Among the few exceptions where some aspects of quality were deemed notably high, results are suspect due to the likelihood of courtesy bias or the Hawthorne effect. Regarding associations between quality and contraceptive behavior, in both sub-Saharan Africa and Asia, client *perceptions* of quality were found to be strongly related to contraceptive use. In both sub-Saharan and North Africa, weak associations were found between facility readiness and use. Method choice, counseling, training, and supervision also showed a weak relationship to use in North Africa, while small but significant associations were found with information and interpersonal relations in parts of Asia. Interventions in all regions have been moderately successful in improving quality, primarily through provider and supervisor trainings. However few studies considered whether such improvements lead to greater client satisfaction and increased use of family planning services. Those that did investigate such linkages found little or no association. However, the majority of these studies relied on data collection instruments known to be subject to certain biases, including courtesy bias and the Hawthorne effect. Therefore the resulting weak associations could be a result of measurement error rather than a true lack of relation between quality and contraceptive prevalence. The most thorough investigation of quality in Kenya was conducted in 1991 and relied primarily on third party observations. There is a need for more updated and rigorous measurements of quality in this country as well as a greater understanding of the validity of standard data collection tools included in the situation

analysis approach. Such insight may be gained through the use of the simulated client approach.

D. Statement of Specific Aims

1. Specific Aims

a. Test the validity of quality measures typically employed in large-scale surveys using original data collection.

   i. Using the same three data collection instruments employed by the MLE project at facility-level baseline, conduct facility audits, provider interviews, and exit interviews at 19 higher-volume facilities in Kisumu, Kenya, in June/July 2012.[4]
   ii. In addition, use third-party observers to assess quality during provider-client interactions with new family planning clients at the same 19 facilities.
   iii. Last, use the simulated client method to conduct observations of provider-client interactions at the same 19 facilities; this measure will serve as the referent measurement of service quality.
   iv. Compare measures of quality obtained through use of simulated clients with estimates of quality obtained through standard data collection instruments used to measure quality in large-scale surveys (facility audit, provider and client interviews, and third-party observations). Use percent agreement, sensitivity, specificity, predictive values, and likelihood ratios to compare questionnaire responses between standard measures and simulated clients.

b. Estimate the association between family planning service quality and contraceptive use in urban Kenya using existing individual- and facility-level baseline data collected in 2010 by the Measurement, Learning & Evaluation Project. Quality of family planning service delivery in this study is based on a well-recognized framework that includes the following six elements: *choice of methods, information given to users, client-provider relations, provider competence, follow-up or continuity mechanisms, and appropriate constellation of services*.

2. Hypothesis

Current measures of service quality are subject to information bias, skewing results of studies of quality and contraceptive behavior and erroneously informing interventions designed to increase contraceptive prevalence. Within the multivariable analysis, this study hypothesizes

[4] Although this data has already been collected in the MLE project facility-level baseline, one year will have elapsed between the facility-level baseline and my planned activities and changes in quality during this time period would not allow for fair comparisons between the standard baseline instruments and the simulated client method. Therefore I will collect the same data a second time. This will be useful to the project as it will allow them to measure changes in quality over the previous year.

that women exposed to low-quality services will be less likely to be current contraceptive users, although this association may be attenuated due to measurement error.

3. Rationale

Testing the validity of current measures of quality of care in family planning will provide valuable information for investigations into the relationship between quality and contraceptive prevalence. Depending on results, future assessments of quality may wish to either substitute/supplement exit or provider interviews with direct observations or perform sensitivity analyses to adjust the results of less valid instruments. More reliable estimates of the association between service quality and contraceptive behavior will better inform quality-related interventions to increase contraceptive prevalence.

CHAPTER III. METHODS

A. Overview of Methods

For my first study aim, I tested the validity of standard facility-level measures of quality often included in large-scale surveys such as the Service Provision Assessment (SPA) survey implemented by the Demographic and Health Surveys (DHS) program or the Measurement, Learning & Evaluation (MLE) project survey. Standard facility-level measures of quality included in these surveys are based on the situation analysis method, an approach developed by The Population Council in the late 1980s, and typically include some or all of four basic data collection instruments: a facility audit, a questionnaire for interviews with family planning service providers, a questionnaire for interviews with family planning clients as they exit the facility, and an observation guide for observing interactions between family planning clients and their service providers. For this validation study, data obtained by simulated clients serves as the referent measurement of quality of care.

To ensure that the data collected by simulated clients was as accurate as possible, the undercover data collectors used a detailed and objective *checklist* to record quality measures immediately following their interaction with a provider. Data collectors posing as clients underwent extensive training and were blinded to the research hypothesis to ensure they did not exaggerate claims of poor treatment. Six simulated clients collected data in a census of 19 public and private facilities in the East District of Kisumu, Kenya, with a medium to high volume of family planning clients.These data were collected from August to October 2012

and were compared to third-party observations (n=44) and interviews with providers (n=49) and new family planning clients (n=31) conducted at the same facilities during the same time period.

In the second aim of this study I conducted a multi-level, multivariate analysis to assess the relationship between quality of family planning service delivery and contraceptive use in urban Kenya, considering several variables that may confound this relationship (Appendix IV). To achieve this aim I used baseline data from the MLE Project, implemented by the Carolina Population Center at the University of North Carolina at Chapel Hill. In 2009, the Bill and Melinda Gates Foundation funded the Urban Reproductive Health Initiative (Urban RH Initiative), a five-year project to increase the contraceptive prevalence rate in select urban areas of Kenya, Senegal, Nigeria, and Uttar Pradesh, India. The MLE project is a six-year project to evaluate this initiative. The country-level program of the Urban RH Initiative in Kenya, *Tupange*, is led by Jhpiego, an international health organization affiliated with The Johns Hopkins University in Baltimore.

In Kenya, the MLE study used a multi-stage sampling design and collected data at both the individual (N=8,932) and facility level (N=279) at baseline. Individual-level baseline data collection was conducted between September and December 2010 and facility-level baseline data collection was conducted between August and November 2011 in five urban areas in Kenya. In this multi-level analysis, the exposure of service quality is measured at the facility level and the outcome of contraceptive use is measured at the individual level. Exposure classification was determined using a standardized quality of care framework developed by researchers at The Population Council in 1990, which includes the following six elements: *choice of methods, information given to user, provider competence, client*

provider relations, continuity or follow-up mechanisms, and appropriate constellation of services (Bruce, 1990).

B. Design

1. Subject Identification/Sampling

Source population

In the first aim of this study, we collected only facility-level data. A total of 19 public and private health care facilities were purposively selected for this validation study, based on their location within the East District of Kisumu in Western Kenya. Included facilities had a minimum patient volume of 10 family planning clients per week, according to the prior week's record in each facility's official patient registration log. These 19 facilities represent a census of all healthcare facilities with a medium to high volume of family planning clients in the East District of Kisumu, Kenya. Within these 19 facilities, an estimated 108 providers offer family planning services and were on-duty during the study period.

The second aim of this study used both individual- and facility-level data collected by the MLE project in urban Kenya in 2010 and 2011. The source population for individual-level data collected by the MLE project in Kenya is that of women of reproductive age (15 to 49) at baseline data collection (September–December 2010) and living in one of five identified urban areas in Kenya: Nairobi, Mombasa, Kisumu, Kakamega, and Machakos. The MLE individual-level baseline survey involved a multi-stage sampling design in which communities/enumeration areas in each city served as primary sampling units (PSUs).

Selection criteria and data collection instruments

Facility selection and instruments

The MLE project developed a standard set of instruments and indicators for use at the individual and facility levels, which was reviewed by in-country consortium and adapted to their local context with assistance from *Tupange*. In addition to individual-level data, the MLE project collected three types of facility-level data: facility audits and provider and client interviews. These data were used to implement the second study aim. For the first study aim, these same facility-level instruments were implemented in a census of 19 public and private facilities in the East District of Kisumu with a medium to high volume of family planning clients, in conjunction with two additional instruments: third-party and simulated client observations. Below I describe each of the five facility instruments.

Facility audits: In the first aim, I use data from facility audits conducted in a census of 19 healthcare facilities in the East District of Kisumu, Kenya, with a medium to high volume of family planning clients. Data were collected in 2012. In the second aim, a total of 279 hospitals, health centers, and clinics were selected for facility audit as part of the MLE baseline survey in 2011. The selected facilities included those where the *Tupange* initiative planned to implement quality improvement activities as well as those facilities mentioned in household surveys as "preferred providers." The MLE/Tupange study also attempted to include a census of public facilities. In each aim the facility audit was conducted by a trained data collector who used a closed-ended questionnaire and the audit was conducted with a manager who also provided information on service statistics. Data was collected on hours of operations, training and experience profiles of staff, services provided, and the provision and availability of each of 12 types of family planning methods (combined oral contraceptives,

progestin-only contraceptives, emergency contraception, male condoms, female condoms, injectables, implants, intra-uterine devices (IUDs), post-partum IUDs, female sterilization, male sterilization, and natural family planning (CycleBeads). The audit also checks for accuracy of storage, adequacy of standard operating procedures, presence of educational materials, and the presence of certain basic items such as sterile equipment, electricity, running water, and private exam rooms.

Provider interviews: As part of the first aim, trained research staff conducted interviews with a census of the 108 on-duty family planning service providers at each of the 19 participating higher-volume facilities in Kisumu during the study period in 2012; 49 of these providers were also visited by a simulated client and could therefore be included in the analysis. For aim #2, I used data collected in 2011 as part of the MLE project that interviewed a total of 684 providers from 279 facilities. As part of the MLE survey, between one and four providers were interviewed at each facility and, within those facilities with five or more service providers, four providers were chosen at random. Healthcare providers were asked to provide their informed consent to participate in the survey and were asked questions on pre-service and in-service training, counseling procedures for family planning, integration of family planning with other healthcare services, quality assurance, use of standard protocols, and consent requirements for delivery of family planning services.

Client exit interviews: In aim #1 of this study, trained staff conducted exit interviews with a convenience sample of 57 new family planning clients attended by 31 different service providers, who also received a simulated client visit; this resulted in a total sample size of 31 clients for the fist aim. For the second aim, exit interviews were conducted by MLE with a convenience sample of 4,230 women visiting one of the 152 high-volume facilities for

services such as family planning, maternal and child health, HIV management or testing and counseling, or curative services. During days of interviews at each of these 152 facilities, a total of 1,316 women either received a new method, resupply, or obtained family planning counseling and were approached for an interview. Women were identified in family planning facilities by using a screening question at the completion of their facility visit to find out what service they received. Interviews took place during a one-day to one-week time period, depending on the client volume at each clinic. Client exit interviews collected data on current and previous method use, wait time, client satisfaction, perceived treatment, and information given during the counseling session, such as information on side effects, method use, and when to return to the facility.

Third-party observations: During the dissertation activities conducted in Kisumu in August–October 2012, a third-party observer was present during 44 client-provider interactions and collected data on methods discussed, information given, the provider's technical competence, treatment of the client, follow-up appointments, and whether services are offered in addition to family planning. No observations of the interaction between clients and providers were conducted as part of the facility-level baseline data collection in Kenya.

Simulated clients and simulated client checklists: During the dissertation-related data collection activities conducted in 2012, six data collectors posed as family planning clients and recorded the details of their interactions with 52 service providers in each of the 19 high-volume facilities in Kisumu. Simulated clients used a checklist (see Appendix II) I designed to capture quantitative data on the six aspects of family planning service delivery quality, according to the Bruce framework (Bruce, 1990). This task was accomplished with guideance from MEASURE Evaluation's Quick Investigation of Quality (QIQ) (MEASURE

Evaluation, 2001). The simulated client checklist contained 25 quality-related questions, each with an exhaustive list of possible responses coupled with user-friendly checkboxes.

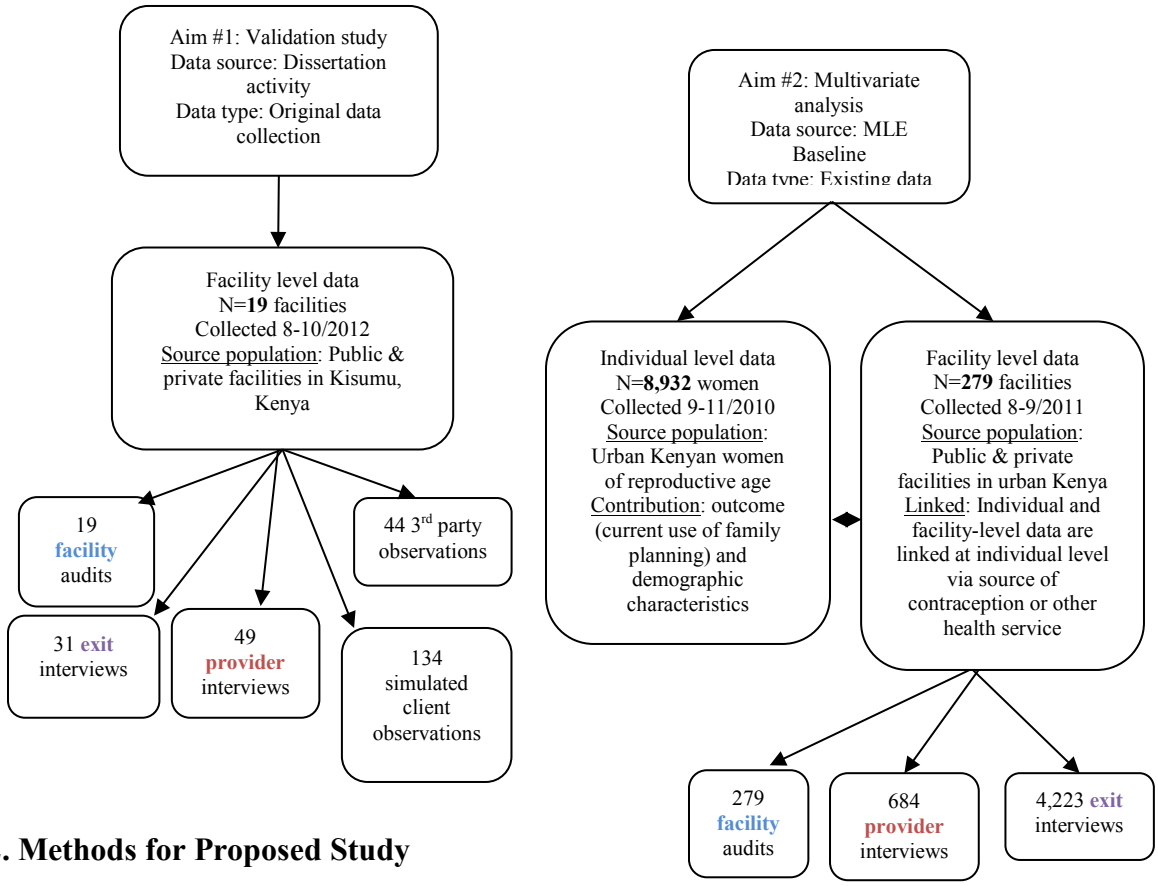
Six local women, ranging in age from 23 to 30 and with parity between zero and three children, were hired and trained on the checklist instrument. Each simulated client was assigned a "preferred method" of contraception to observe provider behavior over a range of methods. Assigned methods included oral contraceptive pills, injectables, intrauterine devices, and contraceptive implants. The six simulated clients attending the 19 facilities produced a total of 134 simulated client-provider observations. To ensure inter-rater reliability between the six simulated clients, they underwent an extensive one-week training, during which time the study principal investigator observed their performance during role-play activities and adjusted deviations in quality assessment. Data from the simulated clients served as the referent measure of quality of family planning service delivery in this analysis. Simulated clients were not used during the facility-level baseline data collection in Kenya.

Individual selection and the women's questionnaire for Aim #2.

Within each selected PSU, a random sample of 30 households was selected for female interviews based on the household listing. For each household selected for female interview, all eligible women (ages 15 to 49) in the households were asked to participate in a detailed interview with a trained female interviewer via an informed consent protocol. Individual interviews took place in a location where the respondent could be assured some level of privacy. Due to household cooperation and the involvement of a neighborhood leader, this was feasible even in slum environments. A same-sex interviewer asked the interviewee questions and filled out a paper-and-pencil questionnaire to enhance the comfort of respondents. Respondents were asked about demographic characteristics, experience with

family planning methods, fertility desires, health-seeking behaviors for themselves and their children, how they pay for healthcare services, exposure to family planning messages, and migration patterns, among other things. A total of 8,932 eligible and consenting women completed the individual women's questionnaire.

Figure 3.1. Graphic representation of data sources.



2. Methods for Proposed Study

Classification of exposure.

For Aim 1, I challenged the assumption that the standard versions of the third-party observation guide and the provider and client exit interview questionnaires used in large-scale surveys obtain valid measurements of the quality of family planning service delivery. For this aim, I used data that I collected in 19 higher-volume public and private health

facilities in Kisumu, Kenya, during August/September/October 2012. This data collection used the same questionnaires employed by the MLE Project during baseline data collection (facility audit, and provider and client interviews), and in addition, I collected data using third-party observations and simulated clients.

In Aim 2 this study examined the relationship between quality of family planning service provision as the primary exposure and the outcome of current contraceptive use. For the purposes of this investigation the exposure, quality of care, was defined using a framework of six elements established by Judith Bruce (Bruce, 1990). Due to the complexity of the exposure variable, Table 3.1 is presented below to provide definitions of each element of quality as well as rationales for the inclusion of each element. The specific questions within each survey instrument that were used to measure each element are included in Table 3.1. For Aim 2, each element was entered into a regression model and assessed independently of the others. For Aim 1, data collected with simulated clients were compared to data collected with standard instruments, by element of quality.

Table 3.1.

Quick Definitions of the Six Elements of Quality of Care and Rationale for Inclusion of Each Element

Element of Quality	Definition	Rationale
Choice of Methods	A satisfactory selection of methods (in terms of number and type) is available on a reliable basis	Limited selection and/or availability of methods may restrict contraceptive use
Information Given to User	Clients receive information on a range of methods including potential side effects and warning signs of the chosen method and instructions for use	Clients may benefit from knowing 1.) a variety of methods are available 2.) the method chosen may result in physical changes which may impact daily activities 3.) how to use their chosen method effectively
Provider Competence	Provider demonstrates adequate technical competence and adherence to medical guidelines and protocols	Failure to observe safe clinical standards may result in negative health outcomes and could generate negative rumors about family planning programs or methods
Client-Provider Relations	Positive and productive interaction takes place between the client and provider, as perceived by the client	Interpersonal relations between providers and clients may influence client confidence, satisfaction, and probability of a return visit
Continuity Mechanism	Follow-up mechanisms are in place to encourage continuity such as scheduling of future appointments or home visits	Assisting clients with resupply may results in greater rates of contraceptive continuation, an important component of the overall prevalence rate
Appropriate Constellation of Services	Convenient access to services is ensured by integrating family planning into other health services such postpartum care, HIV testing and counseling, and others	Integrated programs that maintain sufficient competence may result in increased points of contact for the client

Table 3.2.

Indicators that Measure Quality of Care for Each Data Collection Instrument

Element of Quality	Facility audit indicators	Provider interview indicators	Exit interview indicators	Simulated client checklist (Gold standard) and third party observation guide indicators
Choice of Methods	* Does this facility provide the following FP methods/ services? (list all) * Is the method currently available? * Has it been stocked out in the past month or year?	* Do you provide information about different methods? * Do you discuss the client's FP preferences? * Would you offer Method X to an unmarried person? * Would you restrict Method X based on age or parity? * Do you require spousal consent before providing certain methods?	* Did your provider provide information about different FP methods? * Did your provider ask about your method of choice?	* Which methods did the provider mention to the client? (check all that apply) * Which, if any, method(s) did the provider refuse to offer to the client? * Did the provider ask about/discuss the client's preferred method or method of choice? * Did the client receive her desired method? If no, why not? * If desired method was not available at the SDP, did the provider inform the client where to get it?
Information Given to User	NA	* Do you help a client select a suitable method? * Do you explain the way to use the selected method? * Do you explain the side effects? * Do you explain specific medical reasons to return?	* Did your provider help you select a method? * Did your provider explain how to use the method? * Did your provider talk about possible side effects? * Did your provider tell you what to do if you have any problems?	* Did the provider help the client select an appropriate method? * Did the provider tell the client what side effects to expect with her chosen method? * Did the provider tell the client how to manage the side effects? * Did the provider discuss warning signs and what do to about them? * Did the provider tell the client how to use her selected method?
Provider Competence	NA	* Did you fill out a client record/form? * Have you received any in-service training on providing methods of family planning? * How long ago was the last in-service training that you attended on providing methods of family planning?	NA	* Was the client's medical history taken? * If an exam was performed, did the provider wash his/her hands before the exam? * If an exam was performed, did the provider use a sterile speculum? * If an exam was performed, did the provider use gloves to perform the exam?

Client-Provider Relations	NA	* Do you identify reproductive goals of the client?	* Did your provider ask your reproductive goal? * Did the provider ask you if you had any questions? * During your visit, how were you treated by the provider? * During your visit, how were you treated by the other staff?	* Did staff other than the provider give the client a respectful and/or friendly greeting? * Did the provider give the client a respectful and/or friendly greeting? * Did the provider enquire about the client's reproductive goals and plans? * Did the provider ask the client if she had any questions? * If the client had questions, did the provider answer all of the client's questions?
Continuity Mechanism	NA	NA	* Did your provider tell you when to return for follow-up? * Will you use this facility for health care services in the future?	* Did the provider inform the client when to return for a follow-up visit? * If yes, was the client given a reminder card or other memory prop? * Was the client told what to do if she experienced problems before the next visit? * Did the provider inform new acceptors where to go for resupplies?
Appropriate Constellation of Services	* Is FP provided at all three: postpartum, post-abortion, & child health visits?	* Do you provide post-natal care to clients at this facility? * Do you provide post abortion care to clients at this facility? * Do you provide child immunization to clients at this facility? * Do you provide HIV/AIDS management, PMTCT services, or VCT to clients at this facility?	* In addition to the family planning services you received, did you receive any other health services from the service provider today?	* In addition to the family planning services you received, did you receive any other health services from the service provider today? List all.

For Aim 2, I classified the exposure using facility-level baseline data collected in 279 public and private facilities in select urban areas of Kenya. The instruments used during the facility-level baseline data collection included: facility audits, provider interviews, and client exit interviews. Facility audits were used to measure choice of methods and appropriate constellation of services (Table 3.2). Provider interviews were used to measure choice of methods, information given, provider competence, client-provider relations, and appropriate constellation of methods. Exit interviews were used to measure choice of methods, information given, client-provider relations, continuity, and appropriate constellation of services. In this analysis, information from the interviews with exiting family planning clients was used to classify the exposure only and was separate from the individual-level baseline sample used to classify the outcome.

Coding of exposure variables

With the exception of the variable representing the number of methods provided, available, or not out-of-stock, which was coded as a continuous variable (range = 0 to 12), all variables from the facility audit were coded as binary variables. As previously mentioned, between one and four provider interviews were conducted at each of 255 participating facilities. For each quality indicator, the proportion of providers at each clinic responding affirmatively was calculated, and clinics were then dichotomized as having a provider proportion of positive responses at/above versus below the sample-wide proportion for that indicator. On average, facilities had nine service providers (range = 1 through 267). Between 1 and 44 client interviews were conducted at each facility and relevant quality-related variables from this instrument were also averaged for each facility. Once averaged, client interview variables were entered into the model as continuous variables. Before being

entered into the model, client variables were multiplied by 4 to range from 0–4, so that estimated prevalence ratios reflect the change in contraceptive prevalence associated with a 25 percentage-point increase in that indicator.Through the use of factor analysis, strongly correlated variables were combined in composite or factor variables. This helped simplify the presentation of results.

Classification of outcome: Current use of modern contraception in urban Kenya

The outcome of interest in Aim 2, current modern contraceptive use, was measured at the individual level during baseline data collection in 2010. This was measured by asking participants which method(s), if any, they (or their partner) are currently using. A small number of participants were using natural methods (5% in the women's weighted sample) and were classified as not using modern methods. Modern methods include the oral contraceptive pill, injectable contraception, the intrauterine device, implantable contraception, male or female condoms, and male or female sterilization. Covariates for this analysis include age, marital status, religion, education, wealth, and slum status. These covariates were also measured at the individual level using data collected at baseline.

Quality assurance/quality control

The MLE project in Kenya is implemented by the University of North Carolina's Carolina Population Center. At the time of baseline data collection, the MLE project collaborated with African Population and Health Research Center (APHRC). APHRC is a non-profit organization committed to conducting high-quality research on population and health in sub-Saharan Africa and is globally recognized for their research capacity. For both the individual- and facility-level surveys, APHRC hired city-level supervisors and supervised implementation of the surveys. The baseline facility-level survey was implemented by the

Kenya Medical Research Institute (KEMRI), while the baseline individual-level survey was executed by the Kenya National Bureau of Statistics. APHRC, MLE, and *Tupange* provided oversight for both individual- and facility-level surveys. APHRC ensured high baseline data quality across all five cities through extensive training and monitoring of data collection/entry personnel by senior research staff. Data from the individual- and facility-level baseline questionnaires were entered by trained consultants using CS-Pro data entry software. The advantage of CS-Pro is that it permits extensive data entry checks that result in a clean and user-friendly data set on completion. All of these steps help ensure the quality of data that will be used to achieve the second study aim.

To ensure the quality of the data used in the validation study, several steps were taken. The first challenge was to put together a team of six simulated clients that were believable, representative of the women typically using family planning services in Kisumu, and able to knowledgably and accurately record the data from their interactions with providers. This was no easy task. Women well-versed in data collection activities are more likely to have higher educational and economic backgrounds than the average family planning client. Likewise, those women with more representative backgrounds regarding education, wealth, and slum status may have more difficulty recalling and recording their experience compared to women with more education and professional experience. Therefore, with assistance from local staff of *Tupange* in Kisumu, I conducted an extensive recruitment and interview process to identify suitable women to serve as simulated clients for this study. I was able to put together a team of six individuals who varied by age, parity, marital status, and slum versus non-slum residence.

To ensure inter-rater reliability I conducted a thorough training of the data collectors for one week, during which time data collectors had the opportunity to become familiar with the data collection tools and practice using them under supervision where errors could be corrected. In addition to these steps, all data collection tools were pilot tested in facilities outside the study area and changes were made accordingly.

Data analysis

In the first aim, data from all four instruments (simulated client checklist, third-party observation guide, questionnaire for interviewing exiting clients, and questionnaire for interviewing providers) were linked by individual provider, using a unique identifier. If a provider received more than one visit by a simulated or new client or if a provider was observed more than once, we chose one observation for the provider at random. To determine the degree to which provider behavior was consistent between the simulated client checklist and each standard instrument, we first calculated the percent agreement for each indicator of quality. The percent agreement was calculated as the number of observations with identical responses divided by the total number of observations.

In addition to a measure of agreement between instruments, we also assessed the accuracy of the standard situation analysis measures by computing specificity, positive predictive values, and positive likelihood ratios relative to the simulated client method (treated as the reference standard). These test characteristics were not calculated if the denominator for a given statistic was ≤ 5. Exact methods were used to calculate confidence intervals for these statistics. Sensitivity, negative predictive values, and negative likelihood ratios were also calculated.

The specificity of indicators included in this analysis provides information about the ability of the indicator to accurately identify a true negative outcome (Fletcher & Fletcher, 2012). We hypothesize that providers not engaging in high-quality practices will be unlikely to report this to an interviewer and may alter their typical behavior when under observation or when serving clients likely to be interviewed. We therefore theorize that specificity will be low across all indicators and instruments.

In addition to specificity, we also calculated predictive statistics, in the form of positive predictive values and likelihood ratios, in order to understand the ability of standard instruments to accurately forecast provider behavior with simulated clients. The positive predictive value (PPV) of an indicator tells us, out of all providers who report or are observed doing a particular behavior, the proportion who actually engage in the behavior with simulated clients (Fletcher & Fletcher, 2012). We hypothesize that PPV will vary across indicators and instruments but may be low for those aspects of quality that providers believe they should practice but do not, perhaps due to a lack of resources or time or due to inadequate motivation.

Because predictive values depend on the prevalence of the behavior, it is difficult to generalize such predictive statistics to populations with a different prevalence regarding the indicators associated with the different aspects of family planning service quality. A solution to this limitation is to calculate likelihood ratios, which do not depend on prevalence (Fletcher & Fletcher, 2012). The positive likelihood ratio (LR+), calculated as sensitivity divided by 1-specificity, typically ranges from one to infinity with values close to one suggesting poor predictive ability (i.e., a positive response on the questionnaire does not predict this behavior will take place with the simulated client) (Fletcher & Fletcher, 2012).

When the LR+ falls below 1, that is an indication that responses or observations predict behavior that is the opposite of that response. Such a result would suggest the indicator is an especially poor predictor of actual provider behavior. Given the potential for information bias discussed in the introduction, we hypothesize values for positive LRs will be close to the null value of 1, indicating poor prediction, across most indicators in each standard instrument.

The second aim of this study is to estimate the effect of family planning service quality (measured at the facility level) on contraceptive use (measured at the individual level). Individual- and facility-level data are linked based on the source of the woman's current method or other health service. Adjusted prevalence ratios are estimated using Poisson regression and we account for clustering of observations within facilities using robust standard errors.

CHAPTER IV. RESULTS

The following chapter presents results for each specific aim within the manuscripts that were prepared.

A. Specific Aim and Manuscript 1—Validity of Standard Measures of Family Planning Service Quality

Since the introduction of family planning programs in developing countries in the 1950s, significant reductions in fertility have been observed (Bongaarts, 2011; Cleland et al., 2006). Declines in fertility are most evident in Latin America and Asia, where total fertility rates (TFR) in the past 60 years have dropped from nearly 6 births per woman to less than 2.5 (Bongaarts, 2011). In contrast, the majority of countries in sub-Saharan Africa continue to experience high rates of fertility, with a regional TFR of 5.2 births per woman—more than twice the global average (Bongaarts, 2011; Population Reference Bureau, 2011). Global disparities in the prevalence of contraceptive use, apparent since the late 1980s despite substantial improvement in access, prompted many members of the international family planning community to question whether continued improvements in geographic and financial access to services in sub-Saharan Africa would be sufficient to realize further reductions in fertility (Barry, 1996; Bertrand et al., 1995; Bruce, 1994).

Research findings from the late 1980s suggested that the influence of geographic access on contraceptive use was less critical than women's fear of contraceptive side effects, lack of knowledge, or her community's disapproval of contraceptive use (Bongaarts & Bruce, 1995; Casterline et al., 1997; Cotten et al., 1992). These findings caused some to

conclude that, despite the ability of many family planning programs to reach remote areas of poor countries, the programs were "social failures" for their inability to address cultural factors, health concerns, and misinformation in the populations they served (Bongaarts & Bruce, 1995). In response, many international donors and national policy-makers in the early 1990s began to focus on characteristics of family planning service delivery, with a growing interest in a previously neglected dimension of family planning programs—quality of care (Barry, 1996; Berer, 1993; Brown et al., 1995; Hardee & Gould, 1993; Kols & Sherman, 1998; Jain et al., 1992a; Simmons & Elias, 1994).

The overwhelming and broad support for promotion of service quality in family planning programs was influenced by the establishment, in 1990, of a formal framework that outlined the essential elements of quality of care in family planning service delivery (Bruce, 1990; Hull, 1996). This framework, developed by Judith Bruce, includes aspects of both technical competency and interpersonal relations, reflecting and reinforcing the shift in focus from demographic targets to a client-centered and reproductive rights approach (Hull, 1996). Bruce states that the six elements included in her framework for quality of care in family planning programs "reflect six aspects of services that clients experience as critical." These include *choice of methods, information given to clients, provider competence, interpersonal relations, follow-up mechanisms, and appropriate constellation of services* (Bruce, 1990).

Table 4.1.

Quality of Care Indicators

Element of Quality	Simulated client checklist (reference standard) & third party observation guide indicators	Provider interview indicators	Exit interview indicators
Choice of Methods	* Which methods did the provider mention to the client?	* Do you provide information about different methods?	* Did your provider provide information about different FP methods?
	* Did the provider ask about/discuss the client's preferred method or method of choice?	* Do you discuss the client's FP preferences?	* Did your provider ask about your method of choice?
Information Given to User	* Did the provider help the client select an appropriate method?	* Do you help a client select a suitable method?	* Did your provider help you select a method?
	* Did the provider tell the client what side effects to expect with her chosen method?	* Do you explain the side effects?	* Did your provider talk about possible side effects?
	* Did the provider tell the client how to manage the side effects?		
	* Did the provider discuss warning signs?	* Do you explain specific medical reasons to return?	
	* Did the provider tell the client how to use her selected method?	* Do you explain the way to use the selected method?	* Did your provider explain how to use the method?
Provider Competence	* Was the client's medical history taken?		
Client-Provider Relations	* Did the provider give the client a respectful and/or friendly greeting?	* Do you identify reproductive goals of the client?	* During your visit, how were you treated by the provider?
	* Did the provider enquire about the client's reproductive goals and plans?		* Did your provider ask your reproductive goal?
	* Did the provider ask the client if she had any questions?		* Did the provider ask you if you had any questions?
Continuity Mechanism	* Did the provider inform the client when to return for a follow-up visit?	Do you explain when to return for follow-up?	* Did your provider tell you when to return for follow-up?
	* If yes, was the client given a reminder card or other memory prop?		
	* Was the client told what to do if she experienced problems before the next visit?		* Did your provider tell you what to do if you have any problems?
	* Did the provider inform pill and injectable acceptors where to go for resupplies?		
Appropriate Constellation of Services	* In addition to the family planning services you received, did you receive any other health services from the service provider today?		* In addition to the family planning services you received, did you receive any other health services from the service provider today?

Since its introduction in 1990, Bruce's framework for quality of care in family planning service delivery has become a recognized and widely used standard for conceptualizing service quality in the field of international family planning (Askew et al., 1994; Barry, 1996; Brown et al., 1995; Hull, 1996; Jain et al., 1992a; Jain et al., 1992b; Ketting, 1994). However, global adoption of this framework was only a first step; the measurement of the components of the framework posed a whole new set of challenges. The need for systematic, reliable, and relatively fast measures of quality gave rise to the development of a set of instruments known as the Situation Analysis (Simmons & Elias, 1994). As the first attempt to operationalize the concept of quality (Miller et al., 1991), the objectives of the situation analysis were to describe both the quality and infrastructure of family planning services and to evaluate the impact of quality on the outcomes of client satisfaction, realization of reproductive goals, contraceptive prevalence, and fertility (Fisher et al., 1992). Numerous situation analyses have been conducted in multiple developing countries over the past 20 years, with refinements to the original instruments (Paine et al., 2000). The situation analysis originally included four basic data collection instruments for use at a service delivery point, although a research team may omit one or more of these instruments depending on available resources: a facility audit, an observation guide for use by a third-party observer, a questionnaire for interviewing exiting family planning clients, and a questionnaire for interviewing family planning service providers (Fisher et al., 1992; MEASURE DHS, 2012).

There are methodological limitations of the situation analysis including courtesy bias, reliability of reporting, the Hawthorne effect, and recall bias. Courtesy bias results when clients feel uncomfortable reporting negative aspects of care. Additionally, provider

interviews may lack reliability due to a desire on the part of providers to report their *intentions* or an "ideal" of service delivery rather than what they do in practice (Simmons & Elias, 1994). The Hawthorne effect results during third-party observations wherein providers display their "best behavior" (MEASURE Evaluation, 2001; Bessinger & Bertrand, 2001). For example, during a situation analysis conducted in Kenya in 1991, a provider reported, "I usually do not have this much time for clients, but *in view of your presence, I had better try to do an especially good job*" (Miller et al., 1991). Last, when interviewing family planning clients just before they exit the health facility, clients may have difficulty recalling the information that they received during their family planning counseling session, resulting in recall bias. Most of these forms of information bias tend to skew the resulting measures of quality in a positive direction of higher perceived quality (MEASURE Evaluation, 2001; Simmons & Elias, 1994; Bessinger & Bertrand, 2001; Whittaker et al., 1996). Few methodologically rigorous investigations of quality exist and, of these, most have found only a weak association between quality and contraceptive prevalence. Whether this is because family planning service quality is of little public health importance or due to significant problems in the way quality is measured remains unknown (Mensch et al., 1994a).

1. The Simulated Client Method

One approach for collecting data on service quality while avoiding many of the biases inherent with tools from the situation analysis is use of the simulated client method (Hardee et al., 2001; Huntington & Schuler, 1993; Leon et al., 2007; Madden et al., 1997; Maynard-Tucker, 1994; Naik et al., 2010; Population Council, 1992; Schuler et al., 1985). In this approach, a woman pretending to be an actual new family planning client presents at a health facility and undergoes a family planning counseling session. During the session the provider

is unaware that the client has a research agenda (Madden et al., 1997). Following the session, the undercover data collector records or reports her observations. The main benefits of this method of conducting observations are that it is an unobtrusive means of collecting data and it is likely to be more accurate than a third-party observation; it collects data on actual practice that would be difficult to obtain through other means (Madden et al., 1997).

The key to accuracy with the simulated client method is the employment of simulated clients who present realistically to the providers and have a strong recall of events occurring during their counseling session (Madden et al., 1997). It can be difficult to recruit such clients, especially in small communities where the simulated clients are more likely to be recognized (Boyce & Neale, 2006). A 1991 study of the reliability of data obtained from simulated clients in Peru used *pairs* of concealed observers and found low levels of agreement (interclass correlation = .5) within pairs, indicating the likelihood of rating errors (Leon et al., 1994). One strategy for increasing reliability of simulated client data is the use of a checklist to help the simulated client recall and objectively evaluate providers on listed items.

Although there are many methodological benefits of using simulated clients to collect data on provider-client interactions, there are also ethical concerns with this type of data collection (Madden et al., 1997). Because it is inherently necessary for simulated clients to engage in subterfuge by masking their true purpose and intent, obtaining informed consent from providers is not possible (Huntington & Schuler, 1993). One possible negative consequence of this approach is that once providers become aware that they have been observed without their consent, this realization could undermine the relationship and rapport between providers and their supervisors who have approved such methods. In addition, it is

possible that clients may have to undergo an unwanted physical exam to maintain the ruse of their visit (RamaRao & Mohanam, 2003; Madden et al., 1997). The ethical concerns related to use of the simulated client method may be responsible for the limited use of this method in the family planning literature.

Guidelines for addressing ethical concerns in epidemiologic research published by the Council for International Organizations of Medical Sciences (CIOMS) suggest absence of informed consent may be acceptable in scenarios where full disclosure would interfere with the study purpose (Madden et al., 1997). Huntington and Schuler (1993) also suggest ways to uphold ethical integrity while still gaining the benefits of this approach: One solution is to disclose to the provider the possibility of simulated client visits at a future date so that they are aware that they will be observed at some point but will not know when such observations will occur, inhibiting their motivation to change their behavior. It may also be possible to train simulated clients on ways to avoid unwanted exams (RamaRao & Mohanam, 2003). Many feel the benefits of employing simulated clients outweigh the ethical concerns (Boyce & Neale, 2006).

2. Objectives

The objective of this study was to use the simulated client method to assess the validity of standard measures of family planning service quality employed in the situation analysis. We hypothesize that current measures of service quality are subject to the biases described previously and may skew results of studies using quality of care measures. Testing the validity of current measures of quality of care in family planning will provide valuable information for assessments of service quality, estimates of the relationship between quality and contraceptive use and evaluations of quality improvement interventions. Depending on

results, future investigations of quality may wish to substitute or supplement exit or provider interviews with simulated client observations.

3. Methodology

Study population

A total of 19 public and private healthcare facilities were purposively selected for this study, based on their location within the East District of Kisumu in Western Kenya. Included facilities had a minimum patient volume of 10 family planning clients per week, according to the prior week's record in each facility's official patient registration log. Within these 19 facilities, an estimated 108 providers offer family planning services and were on-duty during the study period.

Data collection

Data collection occurred between August and October 2012. Prior to data collection, research staff visited facility supervisors to explain the study design and purpose and to obtain permission for our study team of trained data collectors to undertake provider and client interviews and third-party observations. Facility supervisors also consented to unscheduled visits to their facility by simulated or "mystery" clients.

For the simulated client component of this study, six local women ranging in age from 23 to 30 and with parity between zero and three children were hired and trained on the checklist instrument. Each simulated client was assigned a "preferred method" of contraception to observe provider behavior over a range of methods. Assigned methods included oral contraceptive pills, injectables, intrauterine devices, and contraceptive implants. To ensure the simulated clients avoided unwanted procedures, those clients assigned to prefer injectables, the IUD, or the implant were trained to conclude their

counseling session before a method could be administered; clients assigned to prefer pills accepted 1–3 packs of pills when offered. Each simulated client visited one to two participating health facilities each day and reviewed completed checklists with the study principal investigator (PI) at the end of each day of data collection. During this time of review between the simulated client and the PI, each recorded response was verbally confirmed.

In addition to visits from simulated clients, all 19 selected facilities participated in third-party observations and interviews with exiting family planning clients and service providers. Trained research staff conducted interviews with all on-duty family planning service providers at each of the 19 participating facilities, with the exception of two providers who declined participation. Exit interviews were conducted with a convenience sample of new family planning clients at the facility on the day of data collection. Research staff attempted to interview a minimum of two new family planning clients at each facility, and this was possible in all but four facilities, where client flow was lower than expected given information from the previous week's patient registration log. Third-party observations were conducted on each provider offering services to a new family planning client on days when the research staff was present at the facility. All family planning providers and clients selected for interview or third-party observation were asked to participate through an informed consent process. In addition to the one provider who refused an interview, three exiting clients declined participation in an interview. No clients or providers declined participation in a third-party observation.

Confidentiality was a key component of the ethics training received by all data collectors during training and each data collector was required to sign a pledge of

confidentiality upon completion of the training. The University of North Carolina at Chapel Hill (UNC-Chapel Hill) and the Kenya Medical Research Institute (KEMRI) reviewed and approved the study protocol and informed consent process for this study.

Data collection instruments

Data obtained by simulated clients served as the reference standard to assess the accuracy of facility-level instruments designed to measure family planning service quality. Shortly after their visit to a participating facility, simulated clients recorded their observations in an objective and user-friendly checklist. The checklist, informed in part by MEASURE Evaluation's Quick Investigation of Quality (QIQ) (MEASURE Evaluation, 2001), was designed to capture quantitative data on the six aspects of family planning service delivery quality, according to the Bruce framework (Bruce, 1990). The simulated client checklist contained 25 quality-related questions, each with an exhaustive list of possible responses coupled with user-friendly checkboxes.

Simulated client data were compared to data collected by three other facility-level instruments: an observation guide and questionnaires for interviewing family planning clients and service providers. The observation guide mirrored the simulated client checklist, collecting data on the six aspects of quality included in the Bruce framework. During provider interviews, family planning providers were asked about the quality of the services they provided as well as previous training, use of standard protocols, and consent requirements for delivery of family planning services. Client exit interviews collected data on the quality of services received as well as current and previous method use, wait time, client satisfaction, and perceived treatment.

The questionnaires for interviewing family planning clients and service providers were developed by The Measurement, Learning & Evaluation (MLE) Project. The MLE Project is the evaluation component of the Urban RH Initiative, a multi-country program in India, Kenya, Nigeria, and Senegal that aims to improve the health of the urban poor. The MLE project developed client and provider questionnaires for use in facility-level data collection activities conducted in Kenya in 2011 and these tools were adapted for use in this validation study. The last data source used in this study, the observation guide, was also modeled after the Bruce framework with input from the QIQ (MEASURE Evaluation, 2001) and the Population Council's "Guidelines and instruments for a family planning situation analysis study" (Fisher et al., 1992). Table 1 contains the specific quality-related questions included in each of the four instruments included in this assessment.

Analyses

Data from all four instruments (simulated client checklist, third-party observation guide, questionnaire for interviewing exiting clients, and questionnaire for interviewing providers) were linked by individual provider, using a unique identifier. If a provider received more than one visit by a simulated or new client or if a provider was observed more than once, we chose one observation for the provider at random for this analysis. To determine the degree to which provider behavior was consistent between the simulated client checklist and each standard instrument, we first calculated the percent agreement for each indicator of quality. The percent agreement was calculated as the number of observations with identical responses divided by the total number of observations.

In addition to a measure of agreement between instruments, we also assessed the accuracy of the standard situation analysis measures by computing specificity, positive

predictive values, and positive likelihood ratios relative to the simulated client method (treated as the reference standard). These test characteristics were not calculated if the denominator for a given statistic was ≤5. Exact methods were used to calculate confidence intervals for these statistics. Sensitivity, negative predictive values, and negative likelihood ratios were also calculated, but for simplicity of presentation, these results are included only in the appendix and are not discussed in the results section.

The specificity of indicators included in this analysis provides information about the ability of the indicator to accurately identify a true negative outcome (Fletcher & Fletcher, 2012). For example, in this analysis if we are considering the indicator for discussion of side effects in the provider questionnaire, the specificity of this indicator tells us, out of all those providers who do not have such discussions with a simulated client, the proportion who do not report discussing side effects on provider interviews. We hypothesize that those providers who do not practice this behavior—or others of known benefit—will be inclined to report that they actually do so in an effort to demonstrate compliance with good practices and avoid jeopardizing job security. In other words, those providers not engaging in high-quality practices will be unlikely to report this to an interviewer and may alter their typical behavior when under observation or when serving clients likely to be interviewed. We therefore theorize that specificity will be low across all indicators and instruments.

In addition to specificity, we also calculated predictive statistics in the form of positive predictive values and likelihood ratios in order to understand the ability of standard instruments to accurately forecast provider behavior with simulated clients. The positive predictive value (PPV) of an indicator tells us, out of all providers who report or are observed doing a particular behavior, the proportion who actually engage in the behavior with

simulated clients (Fletcher & Fletcher, 2012). For example, if we ask providers whether or not they discuss side effects with a client, the PPV tells us—out of all the providers who respond affirmatively—the percent who actually engage in such discussions when visited by a simulated client. We hypothesize that PPV will vary across indicators and instruments but may be low for those aspects of quality that providers believe they should practice but do not, perhaps due to a lack of resources or time or due to inadequate motivation.

Predictive values depend on the prevalence of the behavior and therefore will be different in different populations. As such, it becomes difficult to generalize such predictive statistics to populations with a different prevalence regarding the indicators associated with the different aspects of family planning service quality. A solution to this limitation is to calculate likelihood ratios, which do not depend on prevalence (Fletcher & Fletcher, 2012). The positive likelihood ratio (LR+), calculated as sensitivity divided by 1-specificity, typically ranges from 1 to infinity with values close to 1 suggesting poor predictive ability (i.e., a positive response on the questionnaire does not predict this behavior will take place with the simulated client) (Fletcher & Fletcher, 2012). When the LR+ falls below 1, that is an indication that responses or observations predict behavior that is the opposite of that response. Such a result would suggest the indicator is an especially poor predictor of actual provider behavior. Given the potential for information bias discussed in the introduction, we hypothesize values for positive LRs will be close to the null value of 1, indicating poor prediction, across most indicators in each standard instrument.

4. Results

Recruitment

As mentioned previously, this study was conducted at 19 health facilities in East District Kisumu, within which there were an estimated 108 family planning service providers on-duty during the entire study period (Figure 4.1). Due to facility rotation schedules, many of these providers were delivering services other than family planning (such as child health services) on days when data were collected. As a result, not all 108 on-duty providers at the participating facilities received a visit by a simulated client. Similarly, not all of the 108 providers could be observed by a third-party while providing family planning and many did not offer services to a new family planning client during the study period, inhibiting the ability of research staff to obtain client exit interviews with new clients served by each provider. Regarding provider interviews, one provider could not take the time away from workplace responsibilities to be interviewed and one additional provider declined participation in the study.

Trained research staff completed interviews with 106 providers, third-party observations on 47 different providers (53 observations total, with some providers observed more than once), and exit interviews with new family planning clients attended by 36 different providers (57 exit interviews total). Trained simulated clients completed simulated client visits with a total of 52 providers (134 simulated client visits total). Forty-nine providers both received a simulated client visit and completed an interview with research staff (three providers were visited by a simulated client early in the study period and were on leave by the time research staff visited their facility, which prevented their participation in a provider interview). Forty-four providers both received a simulated client visit and were

observed by a third party while providing family planning services to a new family planning client. Thirty-one providers both received a simulated client visit and provided services to a new family planning client who subsequently completed an interview with trained research staff.

Sample characteristics

The 49 providers with both simulated client and provider interview data were primarily female (88%) and Protestant Christians (76%). Three-fourths (76%) of these providers reported completion of in-service training in family planning provision. On average, these 49 providers were 37 years old and had 11 years of experience as a healthcare provider (see Table 4.2).

The 49 providers who were both interviewed and visited by a simulated client did not differ significantly from those completing interviews but who lack a simulated client visit (n=57) in terms of age, gender, religion, years of experience, or training in family planning. Similarly, the 44 providers with data from both third-party observations and simulated client visits were not significantly different from the 62 providers lacking one or both of these types of data. Those providers with both new client exit interview and simulated client data (n=31) differed in one respect from those providers with only one or none of these data sources (n=75); the 31 providers with both real and simulated client data were more likely (84% versus 67%, p=0.074) to have in-service training in the provision of family planning (see Table 4.2).

Table 4.2.

Characteristics of Family Planning Providers and New Clients Interviewed at 19 Health Facilities in Kisumu, Kenya, 2012

	Provider interview data		3rd party observation data		Client exit interview data	
	Providers with both simulated client and provider interview data	Providers with provider interview data but no simulated client data	Providers with both simulated client & 3rd party observation data	Providers without both simulated client & 3rd party observation data	Providers with both simulated client & new client exit interview data	Providers without both simulated client & new client exit interview data
PROVIDERS	n=49	n=57	n=44	n=62	n=31	n=75
Sex						
Female	88%	77%	89%	77%	87%	80%
Male	12%	23%	11%	23%	13%	20%
Religion						
Christian-Catholic	24%	33%	27%	31%	35%	27%
Christian-Protestant/other Christian	76%	63%	73%	66%	65%	71%
Muslim	0%	4%	0%	3%	0%	3%
Has received in-service training in family planning provision						
Yes	76%	68%	77%	68%	84% *	67% *
No	24%	32%	23%	32%	16% *	33% *
Mean age in years	36	37	37	37	37	36
Mean number of years as health care provider	11	11	11	11	12	11

Prevalence of quality as measured by simulated client data

Simulated clients visited and assessed the service delivery practices of 52 family planning providers. These providers performed strongly in both aspects of method choice, nearly always discussing multiple methods and inquiring into the client's family planning preferences (Table 4.3). Providers also performed well with simulated clients in terms of select aspects of information giving, client relations, and adherence to follow-up mechanisms. Between two-thirds and three-quarters of providers helped the client select a method, discussed side effects, gave instruction on correct method use, engaged with the client in a respectful manner, and told the client when and where to go for resupply of their method. Other high-quality practices were less universal, with fewer than half of providers suggesting ways to manage contraceptive side effects, inquiring as to whether or not the client had any questions, supplying a reminder card for a return visit, or telling the client appropriate actions if they encountered a problem with their selected method. Finally, less than 15% of providers were found to engage in such practices as discussing possible warning signs and their appropriate management, inquiry into the client's reproductive goals, taking the client's medical history, and offering integrated services.

Table 4.3.

Family Planning Providers Achieving Quality-of-Care Indicators during Simulated Client Visits Occurring in 19 Health Facilities in Kisumu, Kenya, 2012

CHOICE	n=52 providers
Provider discussed 2+ methods with client	96.2%
Provider asked the client their preferred method	98.1%
INFORMATION	
Provider helped the client select a method	67.3%
Provider discussed side effects	69.2%
Provider discussed management of side effects	48.1%
Provider discussed warning signs	5.8%
Provider discussed what to do if warning signs occur	5.8%
Provider told client how to use selected method	75.0%
RELATIONS	
Provider treated client with respect	86.5%
Provider asked the client their reproductive goals	5.8%
Provider asked the client if they have any questions	38.5%
TECHNICAL COMPETENCE	
Provider took the client's medical history	13.5%
FOLLOW-UP MECHANISM	
Provider told client when to return for resupply/follow-up	76.9%
Provider gave client an appointment/reminder card	38.5%
Provider told the client what to do if they experience problems	26.9%
Provider told the client where to go for resupply (n=22)*	70.0%
INTEGRATION	
Provider offered client services in addition to family planning	9.6%

* Sample size is smaller for this indicator as long-acting methods do not require re-supply in the short-term and therefore are not included in the denominator

Comparing simulated client data and provider interview data

In the comparison of simulated client data with data from provider interviews, the prevalence of each indicator varies by as much as 45 percentage points between the two

instruments (Table 4.4). In most cases, the prevalence of high-quality provider behavior is greater when measured by provider interviews compared to measurements from simulated client observations, as expected. However, for three quality indicators, simulated clients rated provider performance higher than provider self-reports. This was true for explaining proper method use (Table 4.4) as well as for two indicators displayed only in the appendix table:[5] soliciting client preference and informing clients when to return for additional services (Table A1).

Among the six indicators in Table 4, agreement was low (below 62%) for all but one: discussion of warning signs (80% agreement). We hypothesized that specificity would be low as a result of provider reluctance to report negative practices. In other words, providers who did not engage in a particular behavior with a simulated client (the reference standard) might nevertheless report such practices. Our results confirm this hypothesis: Specificity was low for all but one of the six indicators with sufficient sample size—83% percent of providers who did not discuss warning signs with a simulated client reported that they do not engage in this behavior with clients.

The positive predictive values and likelihood ratios displayed in Table 4 describe the ability of third-party observations to accurately predict how providers behaved with simulated clients. The PPV, a measure of whether a provider observed in a specified practice will also engage in this behavior with an actual client in populations with similar prevalence, was low across all indicators. For four indicators, PPV ranged from 63% to 72% (method selection, side effects, method use, and resupply). This tells us that approximately one-third of providers who report engaging in these four practices related to client information and

[5] Indicators of method choice were found to have high prevalence according to both instruments, resulting in relatively high agreement and PPVs; however specificity could not be calculated due to small sample size. Therefore data on these indicators is reserved for the appendix.

follow-up did not actually do so when serving a simulated client. Provider self-reports indicating that they discuss warning signs (11% PPV) and reproductive goals (8% PPV) with clients only very weakly predicted that providers would have such discussions with a simulated client, suggesting the vast majority reporting such behavior do not actually do it. Surprisingly, provider interview data often revealed low negative predicted value (NPV) (data shown in appendix). Reasons for this are considered in the discussion section.

To consider the predictive ability of these indicators irrespective of the prevalence of the indicators, we turn to the likelihood ratios. Ratios could be computed for only four indicators due to low sample size restricting the ability to calculate sensitivity and specificity. Two of these indicators have zero predictive ability: reporting discussion of side effects and giving instructions on correct method use. For the remaining two indicators, which relate to helping the client select a method and ensuring timely follow-up, a positive response from the provider during the interview actually very weakly predicted that the provider would not engage in these activities with a simulated client.

Table 4.4.

Comparing Results of Simulated Client Visits and Provider Interviews in the Measurement of Quality-of-Care Indicators among 49 Family Planning Service Providers; data collected in 19 health facilities in Kisumu, Kenya, 2012

	Simulated Clients	Provider Interviews	Percent Agreement (95% CI)		Specificity (95% CI)		Positive Predictive Value		Positive Likelihood Ratio
INFORMATION									
Provider helped the client select a method	67%	82%	53%	(38, 68)	6% (1/16)	(0, 30)	63% (25/40)	(4, 77)	0.8
Provider discussed side effects	67%	82%	61%	(46, 75)	19% (3/16)	(4, 46)	68% (27/40)	(51, 81)	1.0
Provider discussed warning signs	6%	18%	80%	(66, 90)	83% (38/46)	(69, 92)	11% (1/9)	(0, 48)	NA*
Provider told client how to use selected method	73%	51%	49%	(34, 64)	46% (6/13)	(19, 75)	72% (18/25)	(51, 88)	0.9
RELATIONS									
Provider asked the client their reproductive goals	6%	51%	51%	(36, 66)	50% (23/46)	(35, 65)	8% (2/25)	(1, 26)	NA*
FOLLOW-UP MECHANISM									
Provider told client when to return for resupply/follow-up	78%	59%	45%	(31, 60)	18% (2/11)	(2, 52)	69% (20/29)	(49, 85)	0.6

* Test characteristics not estimated if based on 5 or fewer observations

Comparing simulated client data and third-party observation data

In comparing data collected by simulated clients with data from third-party observations, most indicators had a difference in prevalence between the two instruments ranging from 10 to 50 percentage points, with simulated client results often lower than the prevalence as determined by third-party observation data (Table 4.5). For two indicators, discussion of multiple methods and informing the client when to return for follow-up, simulated clients rated provider performance slightly higher than third-party observers. For the remaining indicators, the prevalence did not differ between the two instruments or was only slightly (less than 10%) lower for the simulated client checklist.

Three indicators had a high prevalence as reported by both simulated clients and the third-party observer: discussion of two or more methods, solicitation of client's preferred method, and provider treating client with respect (data shown in the appendix). Three more indicators had a very low prevalence among both instruments: discussion and management of warning signs and taking the client's medical history. In these cases, whether the indicator was especially high or notably low, agreement was high across the board (84–95%). Unfortunately, strong agreement and high or low prevalence resulted in low cell counts, making it impossible to calculate specificity. For those statistics that could be computed, specificity was always high (low to mid-90s). Data on these six indicators are shown in the appendix (Table A2). Among the remaining 10 indicators, poor agreement (below 65%) was found for all indicators and specificity was universally low, as expected, ranging from zero to 58% (Table 4.5).

The PPV, a measure of whether a provider observed in a specified practice will also engage in this behavior with an actual client in populations with similar prevalence, was

below 70% for eight out of the 10 indicators presented in Table 4.5. In other words, providers who practiced these eight behaviors when observed by a third party often failed to do so with the simulated client. The remaining indicators—instructing the client on correct method use and telling the client when to return for resupply—had PPVs of 72% and 78%, respectively. LRs, which have the benefit of avoiding influence by the prevalence of the indicator, were close to 1 for all eight of the indicators for which LR+ values could be calculated, indicating poor predictive ability.

Comparing simulated client data and client exit interview data

The prevalence of quality measured by simulated clients was lower than that measured by exit client interviews for the majority of the indicators (Table 6). Unexpectedly, discussing more than one method (data shown in Table A3) or helping the client select a method was rated much higher (16 to 29 percentage points) by simulated clients than by actual exiting clients. One indicator, soliciting client preferences, had the same prevalence in both instruments.

Table 4.5.

Comparing Results of Simulated Client Visits and Third-Party Observations in the Measurement of Quality-of-Care Indicators among 44 Family Planning Service Providers; data collected in 19 health facilities in Kisumu, Kenya 2012

	Simulated Clients	Third Party Observations	Percent Agreement (95% CI)		Specificity (ratio) (95% CI)		Positive Predictive Value (ratio) (95% CI)		Positive Likelihood Ratio
INFORMATION									
Provider helped the client select a method	64%	98%	61%	(46, 76)	0% (0/16)	(0, 21)	63% (27/43)	(47, 77)	1.0
Provider discussed side effects	66%	80%	64%	(48, 78)	27% (4/15)	(8, 55)	69% (24/35)	(51, 83)	1.1
Provider discussed management of side effects	45%	52%	52%	(37, 68)	50% (12/24)	(29, 71)	48% (11/23)	(27, 69)	1.1
Provider told client how to use selected method	73%	73%	59%	(43, 74)	25% (3/12)	(6, 57)	72% (23/32)	(53, 86)	1.0
RELATIONS									
Provider asked the client their reproductive goals	2%	41%	57%	(41, 72)	58% (25/43)	(42, 73)	0% (0/18)	(0, 19)	NA*
Provider asked the client if they have any questions	34%	61%	45%	(30, 61)	38% (11/29)	(21, 58)	33% (9/27)	(17, 54)	1.0
FOLLOW-UP MECHANISM									
Provider told client when to return for resupply/follow-up (n=43)	79%	74%	63%	(47, 77)	22% (2/9)	(3, 60)	78% (25/32)	(60, 91)	0.9
Provider gave client an appointment/reminder card	36%	66%	39%	(24, 55)	29% (8/28)	(13, 49)	31% (9/29)	(15, 51)	0.8
Provider told the client what to do if they experience problems (n=41)	27%	76%	37%	(22, 53)	23% (7/30)	(10, 42)	26% (8/31)	(12, 45)	0.9
INTEGRATATION									
Provider offered client services in addition to family planning	11%	61%	41%	(26, 57)	38% (15/39)	(23, 55)	11% (3/27)	(2, 29)	NA*

* Test characteristics not estimated if based on 5 or fewer observations

Table 4.6.

Comparing Results of Simulated Client Visits and New Client Exit Iinterviews in the Measurement of Quality-of-Care Indicators among 31 Family Planning Service Providers; data collected in 19 health facilities in Kisumu, Kenya, 2012

	Simulated clients	New Client Exit Interviews	Percent Agreement (95% CI)		Specificity (ratio) (95% CI)		Positive Predictive Value (ratio) (95% CI)		Positive Likelihood Ratio
INFORMATION									
Provider helped the client select a method	61%	32%	45%	(27, 64)	67% (8/12)	(35, 90)	60% (6/10)	(26, 88)	1.0
Provider discussed side effects	61%	87%	61%	(42, 78)	17% (2/12)	(2, 48)	63% (17/27)	(42, 81)	1.1
Provider told client how to use selected method	68%	87%	68%	(49, 83)	20% (2/10)	(3, 56)	70% (19/27)	(50, 86)	1.1
RELATIONS									
Provider asked the client their reproductive goals	0%	77%	23%	(10, 41)	23% (7/31)	(10, 41)	0% (0/24)	(0, 14)	NA*
Provider asked the client if they have any questions	35%	84%	45%	(27, 64)	20% (4/20)	(8, 44)	38% (10/26)	(20, 59)	1.1
FOLLOW-UP MECHANISM									
Provider told client when to return for resupply/follow-up (n=30)	80%	93%	73%	(54, 88)	0% (0/6)	(0, 46)	79% (22/28)	(59, 92)	0.9
Provider told the client what to do if they experience problems	32%	84%	35%	(19, 55)	14% (3/21)	(3, 36)	31% (8/26)	(14, 52)	0.9
INTEGRATATION									
Provider offered client services in addition to family planning	13%	74%	32%	(17, 51)	26% (7/27)	(11, 46)	13% (3/23)	(3, 34)	NA*

* Test characteristics not estimated if based on 5 or fewer observations

Three indicators had high prevalence, according to both instruments: discussion of two or more methods, solicitation of client's preferred method, and provider treating client with respect. Agreement for these three indicators ranged from 77–93% and, due to small sample sizes, specificity could not be computed for any of the three. Data are therefore available in the appendix (Table A3). Among the remaining eight indicators, agreement was low (below 70%) for all but one indicator; agreement was 73% for providers telling clients when to return for resupply (Table 6). Results for specificity of client exit interviews matched our expectations, with values below 50% for all but one indicator—helping the client to select a method had a specificity of 67%. As discussed earlier, low specificity for this instrument is indicative of two possibilities: Among the providers failing to provide high-quality services to simulated clients, many either alter their behavior while in the presence of a client likely to be interviewed or the interviewed client feels uncomfortable reporting on negative aspects of care and therefore misrepresents her actual experience with provider care.

Positive predictive values ranged from zero to 70% for seven of the eight indictors; once again, instructions on when to return for resupply were slightly better with a PPV of 79% (Table 6). The low predictive values across seven indicators suggest that many or all of the providers who were reported by clients to engage in each of these behaviors often did not do so when serving simulated clients. LR values could only be calculated for six indicators due to small sample size. Across all indicators of quality, positive responses to the client exit interview were extremely poor predictors of the behavior of providers when attending to simulated clients, as demonstrated by LR+ results extremely close to the null value of 1.

5. Discussion

Three standard instruments designed to measure family planning service quality were assessed for their ability to accurately classify and predict provider behavior, with simulated client data serving as the referent. Third-party observations quite accurately measured discussion and management of warning signs, respectful client treatment, and all indicators related to method choice and provider competence. At the same time, several indicators of information, relations, follow-up, and integration performed poorly through third-party observations. The low specificity and PPVs for nearly all indicators within these categories suggests a poor ability of observational data to identify providers not engaging in high-quality service provision and weak confidence that providers observed participating in certain behaviors are likely to do so when unobserved. These findings support the common hypothesis that observational data is subject to the Hawthorne bias, as discussed previously.

Like third-party observations, interviews with new family planning clients as they exit the facility did a good job of accurately measuring aspects of method choice and client relations, including the client's method preference and respectful client treatment. Yet misclassification of negative provider behavior was nearly universal among the remaining indicators and very low PPVs were found for most indicators of client relations, follow-up, and integration. Overall, providers did not engage with simulated clients in a way that was consistent with interview responses from actual clients.

The different findings arising from actual and simulated client data could be the result of a variety of factors. First, clients may knowingly give an incorrect response in an effort to avoid giving negative feedback on their provider. It is also possible that providers modify their behavior with clients when they know the client will be interviewed by a research team. Clients may also *un*knowingly offer inaccurate

information due to a lack of understanding of the question. For example, the client may not know whether or not the provider "helped" them select a method because they may not know what constitutes "help." If the client already knew the method she wanted to use on arrival at the facility and the provider simply asked some questions to determine the client's medical eligibility, the client may not interpret this as receiving help from the provider in selecting an appropriate contraceptive method. It is also possible that some clients had poor recall of their counseling session. For example, a client who has already selected a method prior to arriving at the health facility may not notice or remember a provider who offers information on other available methods or the client may even preclude such a discussion by verbalizing her predetermined preference early in the counseling session.

Data resulting from interviews with providers were markedly different from simulated client data, with only one indicator—discussion of multiple methods—performing with a high degree of accuracy. The remaining indicators were plagued with low specificity and/or low predictive values. In discussion of warning signs, for example, only 11% of providers who self-reported this behavior were found to actually do so with a simulated client. For discussion of reproductive goals, the PPV was a mere 8%. Surprisingly, the majority of indicators also had very low NPVs—we would expect this to be high given providers have no incentive to hide positive behavior. For example, nearly all of the providers who reported not asking clients about their method preference actually did so with a simulated client. It is possible that providers misunderstood this question. Regarding the practice of "helping" clients select a method, providers are trained to ensure clients have the freedom to choose their preferred method without coercion on the part of the provider. As such providers may shy away from reporting their helpfulness in method selection for fear of being reprimanded for engaging with clients in too directive

of a manner. Reasons why providers would fail to report discussion of side effects, instructions on correct method use, and directions for resupply are not obvious to the study team. The results from this questionnaire, in combination, suggest that provider interview responses are of little overall value in measuring actual provider behavior.

Beginning in the mid-1980s, a number of simulated client studies have been employed to assess family planning service quality within the regions of Latin America and the Caribbean, sub-Saharan Africa, and South Asia (Hardee et al., 2001; Huntington et al., 1990; Leon et al., 2007; Leon et al., 1994; Maynard-Tucker, 1994; Naik et al., 2010; Population Council, 1992; Schuler et al., 1985). Findings from these studies frequently highlight deficiencies in service quality using the Bruce framework to identify areas of investigation, and on occasion they have been used to measure the impact of recent provider trainings (Huntington et al., 1990; Population Council, 1992; Naik et al., 2010) or assess the quality of services for a specific facility type (Hardee et al., 2001). To our knowledge, however, the simulated client method has not been used previously to assess the accuracy of standard instruments used to measure family planning service quality, highlighting the unique contribution of this study to the existing literature.

Limitations

In the initial study design, all 108 on-duty providers at the 19 participating facilities were to receive a visit by a simulated client. This design assumed that all service providers who provide family planning services would do so on a regular basis throughout the study period. Many facilities, however, use a service provider rotation schedule in which only one or a small number of the total providers at the facility offer family planning services each month or each quarter. As a result, it was not possible to collect simulated client data on all family planning providers at the 19 facilities during the study period. Additionally, many providers were not observed by a third-party observer or

did not see new clients who were subsequently interviewed by our research team. Multiple attempts were made to collect all types of data on all providers at the participating facilities by repeated visits to facilities by all members the data collection team and the simulated clients. Regarding the simulated clients, these repeat visits often resulted in multiple observations (by different simulated clients) of the same provider.

Our inability to collect all types of data for all providers may have biased our study results. However, as indicated previously, few differences were seen in the background and professional characteristics of those providers included in the analysis, compared to those that could not be included. Only in the analysis of client interview data did we find a difference in that the included providers were more often trained in family planning provision. It is unclear how this difference may have affected the results of this aspect of our analysis.

One possible limitation of this analysis is that the reference standard is based on a single simulated client visit; therefore the validity of the results depends on how consistent providers are in their behaviors across all visits. We were able to test the sensitivity of our results to this assumption by repeating our analysis, using a different random number seed to randomly select a visit for those providers (n=31) who received more than one simulated client visit. Most numerical results were unchanged or marginally affected in the sensitivity analysis, and all substantive conclusions remained the same.

Concerns exist about the appropriateness of the simulated client method as a reference standard. It is possible that simulated clients will have imperfect understanding and/or recall of the events taking place during counseling sessions with the family planning service providers. We took several steps to ensure data collected by simulated clients are as accurate as possible. For example, the use of an objective checklist

instrument helped reduce confusion on the part of the simulated client when assessing providers. Simulated clients participated in a week-long training with extensive role-play followed by several days of pilot-testing the checklist in non-study facilities. This served to help simulated clients become comfortable and familiar with the checklist instrument, the type of information they were collecting, and their role as undercover data collectors. Simulated clients recorded their observations as soon as possible after leaving the health facility, and subsequently reviewed their responses with the study PI, helping reduce imperfect recall or recording errors. Last, simulated clients were carefully selected to represent the catchment area of participating facilities, helping ensure their believability as real clients. With all these precautions in place, however, it is important to bear in mind that simulated clients may not completely mimic actual clients in certain ways that could influence provider behavior. For example, simulated clients did not bring children with them on their visits to facilities. As such, a provider may be less likely to offer integrated services related to child health such as immunizations.

The authors would also like to point out that the simulated client method is just one tool and may not necessarily replace some or all of the instruments typically included in a situation analysis. For example, simulated clients cannot collect data on facility infrastructure, such as an inventory of supplies and functional equipment. Such an assessment would likely reveal their true purpose at the facility. In addition, the simulated client method does not account for provider perspectives or motivations. Therefore, such data may reveal certain shortcomings within a facility, such as failure to discuss contraceptive side effects or warning signs, but cannot shed light on possible reasons for these omissions, such as a high client-to-provider ratio, inadequate provider compensation, or insufficient contraceptive supplies. More in-depth interviews with

family planning service providers may be necessary to better understand quality of care deficiencies and possible programmatic solutions.

Findings and application

These study results have implications for future assessments and investigations into family planning service quality as well as quality improvement interventions. Reliance on standard service quality instruments may provide inaccurate data, misinforming results of service quality assessments and evaluations and potentially biasing results of multivariate analyses investigating the relationship between family planning service quality and contraceptive use.

In light of these findings, modified or expanded methods of data collection on family planning service quality are warranted. Two of the three standard instruments (third-party observations and client exit interview) demonstrated some utility for some aspects of quality. Rather than replacing standard methods entirely, it may be more beneficial to consider revisions to questions that appear to be misunderstood by family planning clients and providers, most notably questions related to helping the client select a method and soliciting the client's method preference.

Additionally, simulated client data should be included in quality assessments whenever ethically and logistically feasible. Such inclusion will allow for more complex analysis through triangulation among the instruments; for example, comparing third-party observations or provider interviews with simulated client data can highlight which behaviors providers know they should be doing but aren't actually doing. Simulated client data can also supplement traditional instruments by illuminating practices not detectable via standard instruments, such as corrupt practices or lack of provider availability (Tumlinson et al., 2013). Greater use of the simulated client methodology in more settings

will allow for better identification of areas of deficiency in the quality of family planning service delivery.

Conclusion

A number of organizations interested in securing reproductive rights and increasing contraceptive prevalence within regions burdened by high rates of maternal and infant mortality have suggested that improvements in family planning service quality may result in greater client satisfaction and greater uptake and sustained use of contraception. Tremendous work has been undertaken over the past three decades to define and measure quality of care within the context of family planning service delivery, yet little evidence exists that quality improvements may bring about the expected changes in contraceptive use. In this study, conducted within a limited number of facilities in one city in Western Kenya, all three of the standard instruments performed poorly when compared to the reference standard of simulated client data. These findings suggest the need for revised methods in collecting data on family planning service quality, including clarification of vague service quality indicators and greater use of simulated client methodology. Studies investigating the quality of family planning service delivery may benefit from the inclusion of simulated client data.

B. Specific Aim and Manuscript 2—Quality of Care and Contraceptive Use in Urban Kenya

Family planning plays an important role in reproductive rights and the protection of maternal health, yet is underutilized in many parts of sub-Saharan Africa. Regionally, approximately 20% of married women are modern method users and, on average, one in four women has a desire to space or limit pregnancy but is not using a modern contraceptive method (Population Reference Bureau Datafinder, 2013; Population Resource Center, 2002). Although family planning programs in developing countries

have worked to increase service delivery points and expand into remote areas, effective programs must also address quality-related issues such as health concerns and misinformation in the populations they serve (Bongaarts & Bruce, 1995; RamaRao & Mohanam, 2003). Many family planning experts hypothesize that low quality family planning services may act as a barrier to more widespread contraceptive use (Barry, 1996).

Substantial increases in contraceptive use and corresponding declines in fertility have been consistently observed throughout the developing world in previous decades, although the degree of contraceptive increase and fertility decline has been limited in sub-Saharan Africa relative to other developing regions (Bongaarts, 2011). In Kenya, the prevalence of contraceptive use has increased since the 1970s, at which time only 7% of married women of reproductive age used any method of family planning (The World Bank, 2014). By 1998, this figure had grown to nearly 40% (The World Bank, 2014). As contraceptive use has increased, Kenya's total fertility rate has dropped from more than eight children per woman in the early 1970s to approximately five children by the late 1990s. However, progress over the past 15 years has been much slower; Kenya's current contraceptive prevalence has only increased seven percentage points since 1998 and the average woman in Kenya still has between four and five children (The Measurement Learning & Evaluation Project Web site, 2012; The World Bank, 2014).

Motivated by the hypothesis that improvements in service quality may facilitate greater contraceptive use, two prior studies have assessed the quality of family planning service delivery in healthcare facilities in Kenya. Kenya's first nationwide assessment of family planning quality was conducted in 1989 among 99 randomly selected public facilities. This study found several deficiencies in service quality including restricted choice of methods, little information on management of side effects, failure on the part of

providers to ascertain the client's reproductive goals, and a dearth of mechanisms in place to ensure follow-up (Miller et al., 1991). Results from a subsequent study in 1993 focusing on public facilities in Nairobi did not differ markedly from the national study (Mensch et al., 1994b).

Although prior studies provided an account of family planning service quality in Kenya, they lacked the ability to assess the relationship between quality of care and current contraceptive use. Such an assessment typically requires both facility- and individual-level data. Of the many studies in sub-Saharan Africa describing or investigating the quality of family planning service delivery, only one study took a multi-level approach. This study, conducted in Tanzania among more than 7,000 primarily rural women, used data from the 1996 Tanzania Demographic and Health Survey and the 1996 Tanzania Service Availability Survey to assess the relationship between quality and use, linking the two data sources by geographic cluster. This study found two aspects of quality—information given to clients and provider competence—were significantly associated with contraceptive use (Arends-Kuenning & Kessy, 2007).

The objective of this study is to investigate the relationship between family planning service quality and current contraceptive use among women in urban Kenya. As urban populations in Africa are expected to double between 2000 and 2030 (United Nations, 2006), a focus on urban women is timely. We hypothesize that those women attending facilities with higher quality services, compared to those receiving poor quality services, will be more likely to be using modern contraception. It is also possible that the effect of high-quality services on use of modern contraception will be stronger in some demographic subgroups, such as younger or less educated women, because these women have fewer resources to compensate for low-quality services.

1. Methods

Data

This study uses data from the Measurement, Learning & Evaluation (MLE) Project implemented by the Carolina Population Center at the University of North Carolina at Chapel Hill. In 2009, the Bill and Melinda Gates Foundation funded the Urban Reproductive Health Initiative (Urban RH Initiative), a five-year project to increase the contraceptive prevalence rate in select urban areas of Kenya, Senegal, Nigeria, and Uttar Pradesh, India. The MLE project is a six-year endeavor to evaluate this initiative. The country-level program of the Urban RH Initiative in Kenya, *Tupange*, is led by Jhpiego, an international health organization affiliated with The Johns Hopkins University in Baltimore.

In Kenya, the MLE/Tupange study collected baseline data at both the individual (N=8,932) and facility levels (N=279). Individual-level baseline data collection was conducted between September and November 2010 and facility-level baseline data collection was conducted between August and November 2011 in five urban areas in Kenya. In this multi-level analysis, the exposure of service quality is measured at the facility level and the outcome of contraceptive use is measured at the individual level.

Individual-level data

Individual-level baseline data collection for the MLE/Tupange study involved a multi-stage sampling design in which government census enumeration areas in each city served as primary sampling units (PSUs). Within each selected PSU, a random sample of 30 households was selected for household interview. A listing of usual household residents was obtained during the household interview and from this list all eligible women (ages 15–49) were asked to participate via an informed consent protocol. The

response rate for the individual women's questionnaire was 85% and survey weights were used to account for non-response and differentials in selection probability.

Respondents were asked about current contraceptive use, demographic characteristics, and fertility desires, among other things. The baseline individual questionnaire also collected data on the source of the woman's current contraceptive method, current maternal and child health services, current vaccination services, and current HIV services. This information was used to link women in the individual-level survey to a facility where they recently received healthcare services. This linking strategy is based on the hypothesis that the quality of family planning service delivery at the facility where a woman reports actually receiving services will impact her decision to use contraception, i.e., that her direct experience at a facility is a key factor in contraceptive use rather than the quality of the facility in a woman's nearest proximity or the average level of quality among facilities in her geographic area.

Of the 8,932 women in the original sample, a total of 692 women were excluded from this analysis because they reported being currently pregnant or unable to become pregnant for reasons such as menopause or hysterectomy. These women are not in need of contraception. Similarly, an additional 762 women were excluded because they reported a desire to become pregnant now. Last, 1,871 women were excluded because they reported not receiving any type of healthcare service at a facility. These women are not eligible for this analysis because only those women receiving health services in a facility have any possibility of being exposed to service quality. In total, 3,259 women were excluded from the analysis, leaving 5,673 eligible women.

Facility-level data

In addition to individual-level data, the MLE/Tupange study attempted to collect data at 286 service delivery points, including hospitals, health centers, and clinics that

offer family planning or maternal and child health services. The selected facilities included those where the *Tupange* initiative planned to implement quality improvement activities as well as those facilities identified by women in the individual survey as locations where they go for family planning services (preferred providers). The MLE/Tupange study also attempted to include a census of public facilities. Of the 286 selected facilities, two were unable to participate in the audit due to lack of staff availability while another five facilities refused participation, for a participation rate of 97.6%. Nineteen of the 279 participating facilities were excluded from this study because they do not provide family planning services, resulting in a final sample size of 260 facilities. These 260 facilities represent approximately 44% of all operational healthcare facilities with family planning provision in the five study cities. Approximately 60% of all operational hospitals with family planning services were included and more than half of the excluded facilities were smaller, private-sector facilities, according to the Kenya Master Health Facility List (eHealth-Kenya Facilities, 2014). Three types of facility-level data were collected within these sites: facility audits, provider interviews, and client exit interviews. The last of these, client exit interviews, were only conducted in higher-volume facilities (n=152) with sufficient flow of clients.

The facility audit, conducted in collaboration with a manager, collected data on training and experience profiles of staff, services provided, integration of available services, and the provision and availability of each of 12 types of family planning methods. The audit also checked for adequacy of storage and standard operating procedures and the presence of certain basic items such as sterile equipment, electricity, running water, and private exam rooms.

Of the 260 participating facilities providing family planning services, provider interviews were collected at 255 facilities. Between one and four providers were

interviewed at each facility and, within those facilities with five or more service providers, four providers were chosen at random. Healthcare providers were asked to provide their informed consent to participate in the survey and were asked questions on pre-service and in-service training, counseling procedures for family planning, integration of family planning with other healthcare services, and quality assurance, among other things. A total of 692 providers were selected for interview. Seven of those selected did not complete an interview due to lack of available time (n=3) or refusal (n=5), for a participation rate of 99.0%.

Client exit interviews were conducted with a convenience sample of 4,230 women visiting one of the 152 higher-volume facilities for services such as family planning, maternal and child health, HIV management or testing and counseling, or curative services. Interview eligibility was determined at the completion of each woman's facility visit using a screening question to find out what service they received. Interviews were conducted at each facility for a period of one to five days, depending on the client volume at each clinic. Among exiting clients who reported family planning as the main health service they came to the facility to receive that day, client exit interviews collected data on number of methods discussed by the provider, wait time, client satisfaction, perceived treatment, and information given during the counseling session on topics including side effects, method use, and when to return to the facility. This analysis includes only data from exiting clients whose main reason for a facility visit was to initiate or continue contraceptive use. Therefore client exit interview data from a total of 1,316 women attending 126 higher-volume facilities are used here.

Outcome variable

The outcome of interest, current modern contraceptive use, was measured at the individual level during baseline data collection in 2010. This was measured by asking

participants which method(s), if any, they (or their partner) were currently using. For the purposes of this analysis, modern methods include the following: condoms, pills, injectables, implants, intrauterine devices, sterilization, emergency contraception, spermicide, and the lactational amenorrhea method. A small number of participants (5% in the women's weighted sample) using traditional methods (the rhythm method, withdrawal, or standard days method) were classified as not using modern methods.

Independent variables

Exposure classification is guided by a standardized quality of care framework developed by researchers at The Population Council in 1990, which includes the following six elements: *choice of methods, information given to user, provider competence, client provider relations, continuity or follow-up mechanisms, and appropriate constellation of services* (Bruce, 1990). The specific questions within each survey instrument that were used to measure each quality element, as well as information on the coding of these variables, are included in the appendix (Table A1).

Choice of Methods. Choice of methods is determined by the physical availability of a satisfactory selection of methods as well as willingness on the part of the provider to discuss multiple methods and to ascertain client preferences (Mensch et al., 1994b).

Information Given to Clients. Providing information to clients means that clients receive information from their service provider to assist with the selection and proper use of and management of side effects for their selected method as well as potential warning signs (Jain, 1989).

Provider Competence. A competent provider is one who demonstrates adequate technical competence and adherence to medical guidelines and protocols (Bruce, 1990).

Interpersonal Relations. Interpersonal relations can be viewed as the personal or human aspect of service provision, such as respectful treatment and bi-directional communication (Jain et al., 1992).

Continuity and Follow-up. This element of quality ensures that follow-up mechanisms are in place, such as scheduling of future appointments or home visits, to encourage contraceptive continuity (Bruce, 1990).

Appropriate Constellation of Services. Integrating family planning into additional health services such as child immunizations, postpartum care, and HIV-related care ensures convenient access to services (Jain, 1989).

In preparing to assess the relationship between quality and contraceptive use, some researchers have suggested that achieving a high level of service quality may not be realistic in the absence of adequate service *infrastructure* (Tuoane et al., 2004; Huezo & Diaz, 1993). RamaRao and Mohanam (2003) note that program managers have cited deficiencies in the service infrastructure as a key barrier to providing good quality services. As such, the term "quality" can be expanded to include not only the dynamics of the interaction between the provider and client but also the degree to which facilities are prepared to offer services. For this reason we also include variables related to facility infrastructure including basic items, family planning guidelines, and quality assurance measures.

Last, we consider the relationship between client satisfaction and current contraceptive use, in which client satisfaction serves as a proxy for high-quality services. Components of client satisfaction in this analysis include overall satisfaction with services, satisfaction with amount of wait time, satisfaction with amount of information provided, client belief that they will use the facility again, and client agreement to

recommend the facility to others. These variables are only available for higher-volume facilities.

Coding of Independent Variables

With the exception of the variable representing the number of methods provided, available, or not out-of-stock (which was coded as a continuous variable, range = 0 to 8), all variables from the facility audit were coded as binary variables. As previously mentioned, between one and four provider interviews were conducted at each of 255 participating facilities. For each quality indicator, the proportion of providers at each clinic responding affirmatively was calculated, and clinics were then dichotomized as having a provider proportion of positive responses at/above versus below the sample-wide proportion for that indicator. Between 1 and 44 client interviews were conducted at each facility and relevant quality-related variables from this instrument were also averaged for each facility. Once averaged, client interview variables were entered into the model as continuous variables. Before being entered into the model, client variables were multiplied by 4 to range from 0-4, so that estimated prevalence ratios reflect the change in contraceptive prevalence associated with a 25 percentage point increase in that indicator.

Covariates

Based on our knowledge of their relationship with both quality of care and contraceptive use, the following variables were included as covariates in this multivariate analysis: age, marital status, religion, education, wealth, and residence (slum or non-slum location). These covariates were measured at the individual level using data from the women's questionnaires administered at baseline and were included in the multivariate model as indicator variables. See Table 4.7 for categorization of these variables.

Table 4.7.

Demographic Characteristics of Women Ages 15 to 49 in Urban Kenya, 2010

	Women included in the analysis*		Women excluded from analysis because they link to non-MLE facility		Women excluded from analysis because they do not receive services from any facility	
	N=3246**	%	N=2399**	%	N= 2026**	%
Age						
15-19	184	6%	232	10%	542	27%
20-24	886	27%	814	34%	558	28%
25-29	967	30%	565	24%	286	14%
30-34	608	19%	325	14%	179	9%
35-39	352	11%	256	11%	183	9%
40-49	249	8%	207	9%	278	14%
Missing	0	0%	0	0%	0	0%
Education						
No education	68	2%	72	3%	89	4%
Primary Incomplete	442	14%	261	11%	330	16%
Primary Complete	942	29%	564	24%	500	25%
Secondary plus	1795	55%	1501	63%	1102	54%
Missing	0	0%	0	0%	5	0%
Religion						
Catholic	764	24%	626	26%	366	18%
Protestant/other Christian	2183	67%	1581	66%	1263	62%
Muslim/none/other	295	9%	190	8%	396	20%
Missing	4	0%	2	0%	1	0%
Marital Status						
Currently married	2367	73%	1206	50%	338	17%
Not currently married	869	27%	1188	50%	1688	83%
Missing	10	0%	5	0%	0	0%
Parity						
No children	322	10%	726	30%	1251	62%

1 child	996	31%	696	29%	250	12%
2 children	883	27%	455	19%	202	10%
3 children	516	16%	259	11%	123	6%
4 or more children	528	16%	264	11%	202	10%
Missing	0	0%	0	0%	0	0%
Fertility Intentions						
Wants a pregnancy later	1630	50%	1441	60%	1241	61%
Does not want a pregnancy	1408	43%	781	33%	576	28%
Not sure she can get pregnant	16	1%	18	1%	41	2%
Other	20	1%	18	1%	23	1%
Doesn't know	160	5%	135	6%	146	7%
Missing	12	0%	6	0%	0	0%
City						
Nairobi	2269	70%	1967	82%	1388	69%
Mombasa	599	18%	320	13%	509	25%
Kisumu	236	7%	77	3%	66	3%
Machakos	61	2%	20	1%	35	2%
Kakamega	81	2%	15	1%	29	1%
Missing	0	0%	0	0%	0	0%
Wealth						
Poorest	594	18%	396	16%	292	14%
Poor	702	22%	429	18%	357	18%
Middle	715	22%	505	21%	267	13%
Rich	663	20%	476	20%	430	21%
Richest	573	18%	591	25%	680	34%
Missing	0	0%	3	0%	0	0%
Residence						
Slum	790	24%	406	17%	263	13%
Non-Slum	2456	76%	1993	83%	1764	87%
Missing	0	0%	0	0%	0	0%

* Included women are those who could be linked to a facility for which the MLE project has data on service quality; all other women were excluded. ** All numbers and percentages are weighted.

Statistical analysis

After exploring the facility audit instrument and the questionnaires for interviewing family planning providers and clients, we identified a total of 48 variables related to facility-level service quality, infrastructure, or client satisfaction. Such a large number of exposure variables can complicate the presentation of results. Additionally, there is the potential for correlation among related variables. For this reason, we employed factor analysis as a means of reducing the number of quality-related exposure variables in this analysis from 48 to 35. The following sets of variables were grouped together based on an alpha greater than 0.70 and a Factor 1 Eigenvalue greater than 1.0, suggesting the observed variables in each group have a similar pattern of response and are appropriately grouped for the purposes of data reduction:

Method choice, measured by facility audits (variables grouped together include: number of methods provided, mix[6] of methods provided, number of methods currently available, mix of methods currently available)

Method choice, measured by client interviews (variables grouped together include: provider provided information about different FP methods, provider asked the client about her method of choice)

Information given, measured by client interviews (variables grouped together include: provider explained how to use the method, provider talked about possible side effects, provider told client what to do if they have any problems)

Bidirectional communication, measured by client interviews (variables grouped together include: provider asked the client if she had any questions, client felt comfortable to ask questions during the visit, provider answered all of the clients questions)

[6] A mix of methods is defined as at least one long-acting or permanent method, one shorter-acting method, and one barrier method.

Presence of basic items and private exam room, measured by facility audits (variables grouped together include: are the following items available on a functioning basis: running water, electricity, blood pressure cuff, speculum and is there a private examination room)

Client satisfaction, measured by client interviews (variables grouped together include: client would use this facility again and would recommend it to others)

We estimated prevalence ratios using binomial regression. The model was stabilized by using the Poisson distribution for the residuals. Each of the 35 exposure variables was entered into a separate model with the same covariates. We accounted for clustering of observations within facilities using robust standard errors. Our presentation of results includes two models: One model includes the full sample of women while the alternative model includes only those women who linked to a higher-volume facility. This was done because client data was only collected at the higher-volume facilities.

2. Results

Descriptive results

Sample of women

A total of 5,673 eligible and consenting women completed the individual women's questionnaire. Of the eligible women, 3,990 (approximately 70%) could be linked to a facility for which the MLE/Tupange study collected quality-related facility-level data at baseline in 2011. Of these 3,990 women, 3,083 were linked to a facility of higher volume where data from exiting family planning clients were collected. More than half (57%) of the women in the weighted sample were between 20 and 29 years of age and a similar number (55%) completed at least a secondary education (Table 4.7). Most were Protestant, currently married, and had

experienced at least two live births. More than two thirds (70%) of the weighted sample resided in Nairobi and approximately one fourth (24%) resided in slum-like conditions.

Outcome prevalence

Slightly less than two-thirds (65%) of the 3,990 women included in this analysis were currently using a modern contraceptive method (i.e., dependent variable positive, Table 4.8). Close to half of the 2,267 women using contraception were using injectable contraception (45%). Another one-fifth were using the pill (22%). Around 15% of method users in the weighted sample were using long-acting or permanent methods including the IUD, the implant, or female or male sterilization.

Selection effects among women

To examine whether there were selection effects with respect to the users of facilities included in the baseline survey, we considered background characteristics and method use among women excluded because they linked to a facility not included in the MLE baseline facility-level survey (Tables 4.7 and 4.8). Significant differences between excluded women and the women we included in our analysis suggest the sample of facilities included at baseline attract a different set of women by marital status and parity. Those excluded because they went to a facility not included in the MLE baseline survey were twice as likely as included women to be unmarried and three times as likely to be nulliparous (Table 4.7). Excluded women were also more likely to rely on condoms for pregnancy prevention (Table 4.8).

Table 4.8.

Family Planning and Specific Method Use among Women Ages 15 to 49 in Urban Kenya, 2010

	Women included in the analysis*		Women excluded from analysis because they link to non-MLE facility		Women excluded from analysis because they do not receive services from any facility	
	N=3246*	%	N=2399**	%	N=2026**	%
Family Planning Use						
Modern Method	2119	65%	1402	58%	66	3%
Traditional Method	148	5%	114	5%	63	3%
Non-use	979	30%	882	37%	1897	94%
Method Mix	N=2267*	%	N=1516**	%	N=129**	%
Female/Male Sterilization	50	2%	30	2%	59	46%
Pill	491	22%	352	23%	0	0%
Intrauterine Device	116	5%	56	4%	0	0%
Injectable	1023	45%	495	33%	1	1%
Male Condom	200	9%	370	24%	6	5%
Implant	173	8%	38	2%	0	0%
Other Modern Method	66	3%	62	4%	0	0%
Traditional Method	148	7%	114	8%	63	49%

* Included women are those who could be linked to a facility for which the MLE project has data on service quality; all other women were excluded. ** All numbers and percentages are weighted.

Sample of facilities

One-third of the healthcare facilities selected for the facility-level baseline survey were public facilities and the majority of these public facilities (84%) were non-hospital facility types such as health centers and dispensaries (Table 4.9). Among private facilities, a similar amount (87%) was smaller in size than hospitals, such as clinics and maternity homes. On average, each of these facilities employed nine service providers and, on average, the MLE project interviewed 10 clients at each of the higher-volume facilities.

Table 4.9.

Characteristics of Select Healthcare Facilities in Urban Kenya, 2011

Total health care facilities	N= 260	%
Public Facilities	N=87	33%
Public hospitals	14	16%
Other types of public facilities	73	84%
Private Facilities	N= 173	67%
Private hospitals	22	13%
Other types of private facilities	151	87%
	Mean (Range)	
Providers interviewed per facility	3 (1-4)	
Providers per facility, overall	9 (1-267)	
Family planning clients interviewed per facility	10 (1-44)	

Quality of care

Regarding method choice, on average, the facilities included in this analysis provided seven contraceptive methods but had fewer than six methods currently available at the time of the facility audit and had only about four methods that had not been stocked out at some point in the previous year (Table 4). Although most providers (81%) reported discussing multiple methods with their clients, less than half of providers (48%) reported asking their clients about

their family planning preferences. According to client interviews, around half of clients (47%) received information on multiple methods and a similar amount (57%) were asked about their method of choice.

Table 4.10.

Quality of Care among Select Healthcare Facilities in Urban Kenya, 2011

Choice of methods	N=260*
Facility audit conducted at 260 facilities found:	
Mean number of methods provided (range)	7.3 (1-12)
Mean number of methods provided and currently available (range)	5.5 (0-8)
Mean number of methods provided and not out of stock in the previous year (range)	3.8 (0-8)
Percent of facilities with at least one long-acting, one shorter-term, and one barrier method provided	63.1%
Percent of facilities with at least one long-acting, one shorter-term, and one barrier method provided and currently available	55.8%
Percent of facilities with at least one long-acting, one shorter-term, and one barrier method not out of stock in previous year	33.1%
From interviews conducted with 648 providers at 255 facilities, the percent of providers who report:	
Discussing different FP methods with clients	80.9%
Asking the client about their prefered method	47.5%
From interviews conducted with 1315 clients at 126 facilities, the percent of clients who report:	
Being told about different FP methods	46.7%
Being asked about their method of choice	56.7%
Information given to users	
From interviews conducted with 648 providers at 255 facilities, the percent of providers who report:	
Helping the client select a method	43.1%
Explaining how to use the selected method	52.6%
Explaining side effects of selected method to clients	81.0%
Discussing potential warning signs related to selected method with clients	29.8%
From interviews conducted with 1315 clients at 126 facilities, the percent of clients who report:	
Provider helped them select a method (n=472; new and switching clients only)	40.7%
Provider explained how to use selected method (n=472; new and switching clients only)	65.9%
Being told about possible side effects of chosen method	57.6%
Provider discussed what to do if client has problems with method (n=472; new and switching clients only)	64.6%
Provider competence	

From interviews conducted with 648 providers at 255 facilities, the percent of providers who report:	
Receiving in-service training in FP provision	50.0%
Client-Provider relations	
From interviews conducted with 648 providers at 255 facilities, the percent of providers who report:	
Discussing reproductive goals with the client	44.0%
From interviews conducted with 1315 clients at 126 facilities, the percent of clients who report:	
The provider asked them about their reproductive goals	34.8%
Being treated very well by their provider	33.4%
Being treated very well by other facility staff	21.3%
Being asked if they have any questions	66.4%
Feeling comfortable asking questions during the visit	91.1%
The provider answered all their questions	79.1%
Follow-up mechanisms	
From interviews conducted with 1315 clients at 126 facilities, the percent of clients who report:	
Their provider informed them when to return for resupply	93.4%
Integration	
From facility audit conducted at 260 facilities, the percent of facilities that report:	
Integrating family planning with child health services	85.8%
Integrating family planning with post natal care services	78.1%
Integrating family planning with HIV services	90.0%
From interviews conducted with 648 providers at 255 facilities, the percent of providers who report:	
Integrating family planning with child health services	72.1%
Integrating family planning with post natal care serivces	70.2%
Integrating family planning with HIV services	80.9%
Infrastructure or facility "readiness"	
Facility audit conducted at 260 facilities found:	
Percent of facilities with a private exam room	87.3%
Percent of facilities with water	78.5%
Percent of faciliites with electricity	93.9%
Percent of facilities with blood pressure cuff	95.4%
Percent of facilities with a speculum	82.3%
Percent of facilities with family planning guidelines	51.5%
Percent of facilities with quality assurance measures in place	38.9%
Client satisfaction	
From interviews conducted with 1315 clients at 126 facilities, the percent of clients who report:	
Belief that other clients could not see them	83.9%
Belief that other clients could not hear them	93.8%
Belief that their information will be kept confidential by the provider	87.3%
Belief that they received the right amount of information (not too much and not too little)	91.0%
Wait time was satisfactory	76.3%

Being satisfied with services	91.8%
They will use this facility again	98.9%
They will recommend this facility to others	97.8%

* Aspects of quality measured by facility audits or provider interviews come from a sample of 260 or 255 facilities, respectively. Aspects of quality measured by client interviews come from a sample of 126 higher-volume facilities.

According to self-reports, between approximately 30% and 50% of providers offered information to clients such as helping with method selection, explaining method use, and discussing potential warning signs. Larger numbers of providers (81%) reported explaining possible side effects of the client's chosen method. Client reports of the information offered by providers differed from provider responses, with approximately two-thirds reporting their provider explained proper method use and discussed how to manage problems while just 58% said their provider discussed potential side effects.

Because it is difficult to measure provider competence without direct observation of the client-provider interaction, this analysis uses training as a proxy for technical capacity. Exactly half of the providers interviewed reported that they had received in-service training on the provision of family planning services.

The relationship between providers and clients is measured primarily through indicators in the client questionnaire. Around one-third of clients reported their provider asked about their reproductive goals and treated them very well, while approximately one-fifth of clients said other staff within the facility treated them very well. Indicators used to measure the bidirectional nature of communication between providers and clients, including client reports of whether the provider solicited questions, whether the client felt comfortable asking questions, and whether all questions were answered by the provider, ranged from 66% to 91%.

Nearly all providers (93%) report informing their family planning clients when to return to the facility for method resupply; this represents follow-up mechanisms.

According to responses from facility supervisors during the facility audit, integration of family planning with other health care services (including child health services, postnatal services, and HIV-related services) is fairly widespread, occurring in at least 78% of all facilities in the sample. Providers self-reported slightly lower levels of integrated services. According to these reports, family planning is integrated into child health services by 72% of providers, into postnatal services by 70% of providers, and into HIV-related services by 81% of all providers interviewed at baseline.

Facility infrastructure

According to the facility audit, the majority of facilities (79% or more) have private exam rooms, running water, electricity, and basic items often used in the provision of family planning methods such as blood pressure cuffs and specula. Far fewer facilities could point to the presence of national family planning guidelines within the facility (52%) and even fewer could demonstrate quality assurance measures (39%).

Client satisfaction

Approximately nine out of ten clients felt they had adequate privacy during their visit, believed in the confidentiality of their services, felt they received the right amount of information, and were satisfied with services overall. Clients reported nearly universally that they would use the same facility again and would recommend it to others. Fewer clients—only 3 out of 4—were satisfied with the amount of time they had to wait for services.

Multivariate analyses

Choice of methods

Within higher-volume facilities (Model 2) two aspects of method choice were significantly associated with current modern method use: providing a mix of methods that have not been stocked out in the previous year and providers

reporting that they ask clients about their family planning preferences (adjusted prevalence ratios of 1.1 and 1.2, respectively, Table 4.11). Within the full sample of facilities that includes both higher- and lower-volume facilities, only a consistently stocked mix of methods had a relationship to family planning use and the magnitude of the effect (prevalence ratio of 1.1) is slightly smaller than in the restricted sample of facilities.

Table 4.11.

Multivariate Logistic Regression Examining the Relationship between Quality of Care and Current Use of Modern Contraception among Women Ages 15 to 49 in Urban Kenya, 2010

	Model 1 [a]		Model 2 [b]	
	aPR	CI	aPR	CI
Choice of methods				
Facility Audit Data				
Composite variable for method choice (number and mix of methods available and provided)	0.98	(0.91, 1.05)	1.06	(0.96, 1.18)
Facility audit shows the number of methods provided that were not stocked out in the previous year	1.01	(0.98, 1.03)	1.02	(0.99, 1.05)
Facility audit shows a mix of methods is provided and not stocked out in previous year	1.10	(0.98, 1.23)	1.15	(0.99, 1.34)
Provider Interview Data				
Providers reported discussing different FP methods with clients	1.02	(0.91, 1.14)	1.07	(0.92, 1.23)
Providers reported asking the client about their *preference*	1.03	(0.93, 1.14)	1.14	(1.02, 1.28)
Client Interview Data				
Composite variable for method choice (client reports being told about different and asked method preference)	NA	---	1.01	(0.93, 1.11)
Information given to users				
Provider Interview Data				
Providers report helping with method selection	1.03	(0.92, 1.15)	1.11	(0.96, 1.29)
Providers report giving instructions for use	1.05	(0.94, 1.18)	1.10	(0.97, 1.26)
Providers report discussing side effects	1.12	(1.01, 1.23)	1.08	(0.95, 1.23)
Providers report discussing potential warning signs	1.06	(0.96, 1.18)	1.09	(0.95, 1.24)
Client Interview Data				
Client reports provider helped them select a method	NA	---	1.06	(1.01, 1.11)
Composite variable for information (client reports provider discussed proper use, side effects & problem management)	NA	---	0.96	(0.86, 1.08)
Provider competence				

Provider Interview Data				
Providers report receiving in-service training in FP provision	0.95	(0.85, 1.06)	0.98	(0.84, 1.14)
Client-Provider relations				
Provider Interview Data				
Providers report asking clients about their reproductive goals	0.99	(0.88, 1.11)	1.02	(0.87, 1.19)
Client Interview Data				
Client reports being asked about their reproductive goals	NA	---	1.05	(0.97, 1.14)
Client reports being treated very well by their provider	NA	---	1.10	(1.01, 1.19)
Client reports being treated very well by other staff	NA	---	1.06	(0.95, 1.18)
Composite variable for bidirectional communication (provider solicited questions, client felt comfortable asking questions, provider answered all questions)	NA	---	1.00	(0.89, 1.11)
Follow-up mechanisms				
Client Interview Data				
Clients report their provider informed them when to return	NA	---	0.97	(0.87, 1.07)
Integration				
Facility Audit Data				
Facility audit shows integration of family planning with child health services	1.09	(0.93, 1.28)	1.09	(0.90, 1.32)
Facility audit shows integration of family planning with postpartum services	1.02	(0.87, 1.19)	0.99	(0.84, 1.17)
Facility audit shows integration of family planning with HIV services	1.05	(0.90, 1.23)	1.02	(0.85, 1.22)
Provider Interview Data				
Providers report integrating family planning with child health services	1.00	(0.87, 1.14)	1.15	(0.92, 1.43)
Providers report integrating family planning with postnatal services	0.97	(0.85, 1.10)	1.05	(0.88, 1.26)
Providers report integrating family planning with HIV services	1.01	(0.88, 1.16)	1.05	(0.85, 1.28)
Infrastructure or facility "readiness"				
Facility Audit Data				
Composite variable for basic items (private exam room, running water, electricity, blood pressure cuff, speculum)	0.96	(0.89, 1.05)	0.99	(0.89, 1.10)
Facility audit shows presence of family planning guidelines	0.96	(0.86, 1.07)	0.92	(0.79, 1.06)
Facility audit shows quality assurance mechanisms in place	1.05	(0.95, 1.17)	1.04	(0.92, 1.18)
Client satisfaction				
Client Interview Data				
Belief that other clients could not see them	NA	---	0.92	(0.85, 1.00)
Belief that other clients could not hear them	NA	---	0.88	(0.73, 1.05)
Belief that their information will be kept confidential by the provider	NA	---	1.09	(0.95, 1.26)
Belief that they received the right amount of information (not too much and not too little)	NA	---	0.98	(0.82, 1.17)
Amount of wait time is acceptable	NA	---	0.97	(0.89, 1.06)
Overall satisfied with services	NA	---	0.96	(0.82, 1.14)
Composite variable for satisfaction (would use again and recommend to others)	NA	---	1.17	(1.02, 1.35)

* All models are adjusted for age, education, marital status, religion, parity, city of residence, wealth, and slum residence.
[a] Bivariate analysis performed on the full weighted sample size (n=2,949)
[b] Bivariate analysis restricted to only those observations linked to a facility where client exit interviews were conducted (n=1,887)
aPOR = Adjusted Prevalence Odds Ratio

Information

Women attending facilities where providers report discussing side effects were significantly more likely to be current family planning users (prevalence ratio 1.1, Table 5). This effect was not seen in the restricted sample of facilities. In the restricted sample of facilities, those women attending facilities where clients report receiving help with method selection had a 6% greater likelihood of current contraceptive use for each 25 percentage point increase in this indicator. Therefore an increase from the current prevalence of 41% to 66% for this indicator will correspond to a 6% greater likelihood of contraceptive use.

Client-provider relations

Women attending facilities where exiting clients reported being treated very well by their provider had a 10% greater likelihood of current contraception use compared to women attending facilities where this was not the case. No other measurements of a positive provider-client relationship—such as discussion of reproductive goals, treatment by other staff, or bidirectional communication—appear to significantly influence contraceptive use in this population.

Client satisfaction

Contrary to expectations, women attending facilities where exiting clients reported visual privacy were significantly less likely to be current contraceptive users (prevalence ratio, 0.9). Those women attending facilities where exiting

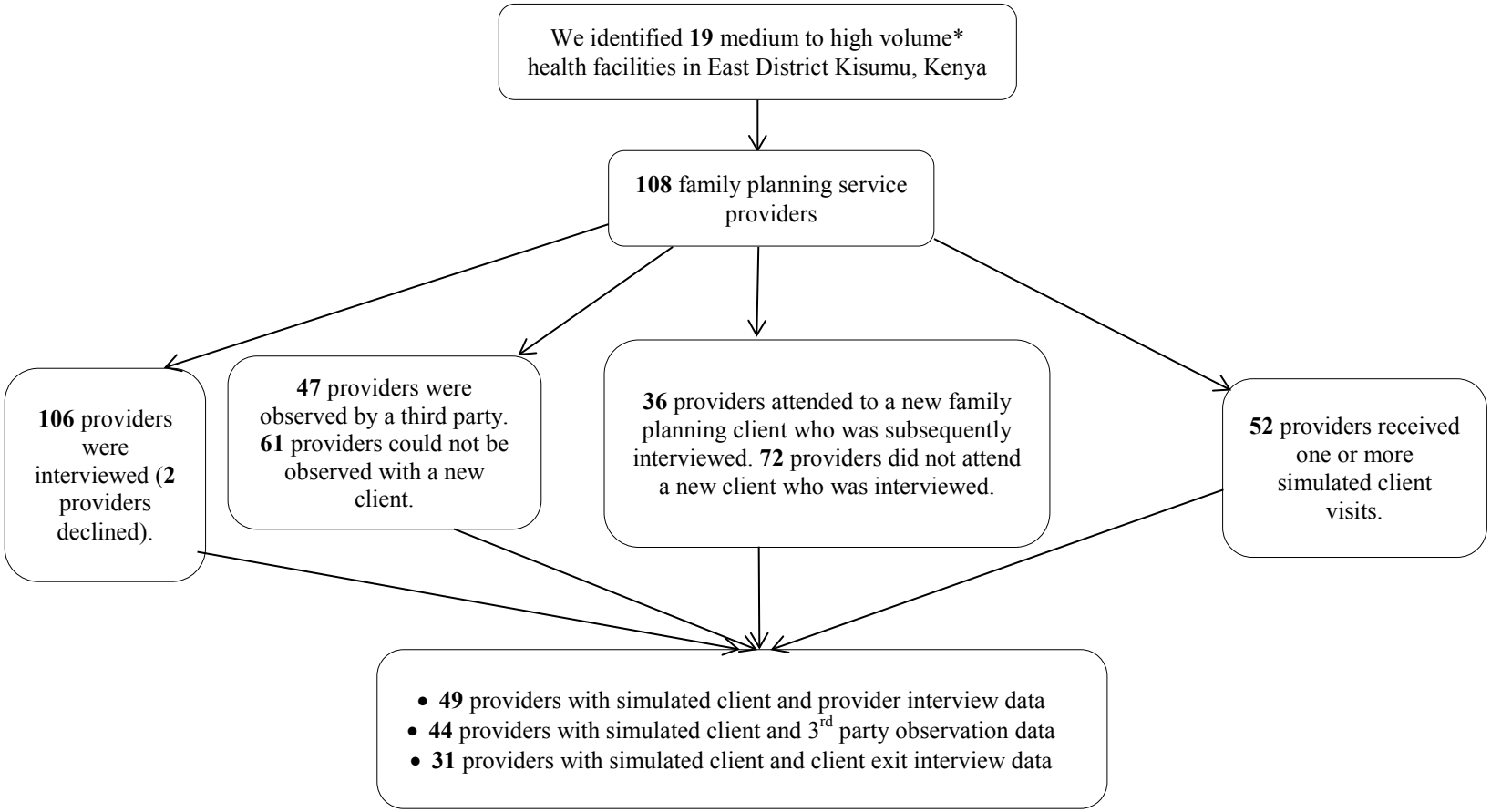
clients reported they would use the facility again and/or recommend to others were 1.2 times as likely to be current users as women attending facilities where clients reported they would not return to or recommend the facility. Other indicators of client satisfaction such as audial privacy and satisfaction with information or wait times, as well as overall satisfaction with services, had no relationship with current contraceptive use among women in this sample.

Provider competence, follow-up mechanisms, integration, and facility infrastructure

We found no association between provider in-service training in FP provision and current use. Similarly, we did not find increased likelihood of contraceptive use among women attending facilities where exiting clients reported receiving information on when to return for follow-up services. We also found no significant association between contraceptive use and the integration of family planning into other health services, as measured by both facility audits and provider reports. Last, no aspect of facility infrastructure was associated with current modern method use.

Additionally, we found that these results are modified by both age and education. In general, the association between several aspects of quality and contraceptive use was much stronger for younger women and those who were less educated. Figure 4.1 demonstrates modification by age of the relationship between the provider's treatment of the client and current contraceptive use. This figure illustrates an effect in the younger age groups that is diminished in the older age groups. The effect of provider treatment on contraceptive use is strongest among women 15 to 19 years of age (prevalence ratio of 1.4). A similar relationship was observed for some aspects of quality and education, where the magnitude of effect was strongest among the least educated women.

Figure 4.1. Recruitment of participating family planning service providers in 19 health facilities in Kisumu, Kenya, 2012



* Medium to high volume facilities are defined as those serving a minimum of 10 family planning clients in the week preceding the start of this study.

3. Discussion

This study found several indicators of family planning service quality to be significantly associated with current contraceptive use, including keeping a mix of methods on hand for clients throughout the year and employing service providers who inquire into the client's family planning preferences, discuss possible side effects with clients, and treat their clients "very well." These aspects of method choice, information given, and client-provider relations were associated with increased likelihood of contraceptive use among the women in our sample.

Surprisingly, three aspects of family planning service delivery appear to have no association with current contraceptive use: provider competence, follow-up mechanisms, and integrated services. It is possible that the means of measuring these aspects do not sufficiently capture their true meaning. For example, just because a provider has received in-service training on family planning provision, there is no guarantee that they are more competent in service provision compared to their peers who have not received such training. Additionally, giving clients verbal instructions on when to return for continued contraceptive supplies may not impact the future behavior of clients to the same extent as other types of reminders such as appointment cards or follow-up phone-calls, which may not be standard practice in many parts of Kenya. It may also be the case that facility managers and providers self-report higher levels of integrated services than take place in practice in an attempt to exaggerate service quality; such misreporting may attenuate an existing relationship. It is also possible that these aspects of quality have no association with current contraceptive use.

Last, facility infrastructure and many aspects of client satisfaction were unrelated to contraceptive use, including privacy issues, the amount of information given, wait time, and overall satisfaction. The reason for the negative association between visual

privacy and current use is unclear. Given the large number of variables assessed for their relationship with quality (35 in total) we would expect one or two spuriously significant results at an alpha level of 5%.

Many of the prevalence ratios observed in this study were close to the null value (1.00). However, it should be noted that, in our sample of urban Kenyan women who are not trying to become pregnant, contraceptive prevalence is 65% (Table 2). A prevalence ratio of 1.2, although modest as a ratio measure, equates to a 20% increase in modern contraceptive use (form 65% to 78%). Therefore, although a prevalence ratio of 1.2 is a relatively small proportion, it may represent a clinically meaningful increase in contraceptive use.

Prior to this study, the most recent multi-region assessment of family planning service quality in Kenya using the Bruce framework took place in 1989 among public facilities and identified several areas of quality in need of improvement (Miller et al., 1991). Comparisons between our findings and this previous study should be interpreted cautiously given the restriction to urban areas and the inclusion of private facilities in our study and a much smaller sample of clients and use of observational data in the previous study. However, it may be worth noting that a comparison of findings[7] indicates increased discussion of side effects (from 60% to 81%) and decreased discussion of reproductive goals (from 56% to 44%) and multiple methods (from 94% to 47%). Discussion of an appropriate return date and general client satisfaction were consistently high (above 90%) in both studies.

The previous multi-level study from Tanzania, in agreement with our results, found an association between the information provided to clients and current

[7] The prior study used only third-party observational data; we compare this to provider self-reports in our study. Unfortunately the prior study did not use client or provider interview data and our study did not use observational data; therefore a direct comparison is not possible.

contraceptive use (Arends-Kuenning & Kessy, 2007). However, because this earlier study measured information by the availability of educational and promotional material rather than discussion of side effects, method selection, or proper method use, making comparisons between the two studies problematic. Additionally, the prevalence of current contraceptive use in the sample of women in the Tanzania study was 13% while the prevalence within our sample of women in urban Kenya was 65%; therefore the same relative change in contraceptive prevalence will correspond to very different absolute differences within the two populations.

Our study identifies several modifiable aspects of family planning service quality with the potential to increase contraceptive use within a country with high fertility and high unmet need, demonstrating the large public health importance of these results. Our results suggest that, in terms of quality improvements, increases in contraceptive prevalence may be most responsive to efforts to strengthen the contraceptive method mix and supply chain, with specific measures to avoid stock-outs. Gains may also be seen from in-service and pre-service training with an increased emphasis on the ability of providers to excel in client treatment and impart critical information on the potential side effects of selected methods. Our results also suggest the need for more specific measures of provider technical competence as well as more innovative strategies for encouraging contraceptive continuation.

The MLE project is one of the first large-scale surveys to be able to link individual- and facility-level data by individual woman rather than by cluster. This allows us to assess the relationship between quality and use without the restrictive assumption that all women in the sample attend the facility most preferred by the women in their primary sampling unit or the facility in closest proximity. To our knowledge, no other population-based studies have been able to link individual women to their current health

facility, highlighting the novelty of this research. The MLE project is also the first large-scale survey to focus exclusively on urban populations in developing countries, allowing for an in-depth investigation of this rapidly growing population. Last, this is one of only a handful of studies to consider all six aspects of quality as well as facility infrastructure and is the first comprehensive multi-region situation analysis conducted in Kenya since the early 1990s.

There are some limitations to this study that warrant discussion. Approximately 30% of the eligible women could not be linked to a facility at which the MLE project collected baseline facility-level data and therefore had to be excluded from the analysis. These exclusions suggest some bias in the MLE/Tupange study selection of facilities and caution should be used when generalizing results to unmarried and nulliparous women. Additionally, aggregated indicators at the facility level may not represent the experience of an individual client; for example, just because the majority of provider or client self-reports suggest a facility provides poor quality of care, it is not necessarily the case that all women attending this same facility are subjected to low-quality services, especially in facilities with multiple providers. Similarly, it is possible that provider performance varies from client to client, depending on numerous factors. For example, the same provider may typically discuss side effects with their clients but may fail to do so on days when they experience a higher volume of clients. Last, it is possible that providers may fail to provide an accurate report of their service delivery behaviors in an effort to portray their performance in a positive light. This could be the result of social desirability bias, whereby the respondent wants to offer the interviewer a pleasing answer. Similarly, client responses may be influenced by a desire to please the interviewer, protect themselves from retribution from facility staff, or by a cultural reluctance to provide negative information.

4. Conclusions

The results of this analysis support the concept of facility-level improvements in the delivery of contraceptive services, especially with respect to: method choice, counseling on contraceptive side effects, and client treatment. Strengthening of the contraceptive supply chain and increased attention around the importance of positive and informative interactions between providers and clients are potential strategies for increasing contraceptive use in this region of high unmet need.

CHAPTER V. CONCLUSIONS

A. Quality of Care in Urban Kenya

Quality of care has long been hypothesized to impact the uptake and continued use of contraceptive methods, particularly in developing countries. This study was designed to test the validity of standard instruments frequently used in large-scale surveys to measure the quality of family planning service delivery. This aim was achieved through the use of primary data collected in an urban area of Western Kenya. Additionally, this study estimated the association between quality and current modern contraceptive use among a population of women of reproductive age living in select urban areas of Kenya to better understand both the prevalence of high-quality services within Kenyan healthcare facilities as well as the relationship between quality and family planning use. Both study aims used a formal framework for family planning service quality consisting of six elements: *choice of methods, information given to clients, provider competence, interpersonal relations, follow-up mechanisms, and appropriate constellation of services* (Bruce, 1990).

Regarding the validity of quality measures, three standard instruments designed to measure family planning service quality were assessed for their ability to accurately classify and predict provider behavior, and all three instruments performed poorly when compared to the referent of simulated client data. When comparing data from third-party observations with that of simulated clients, low specificity and low positive predictive values (PPVs) resulted for nearly all indicators within the categories of information, relations, follow-up, and integration. Like third-party observations, interviews with new

family planning clients as they exited the facility often misclassified negative provider behavior, as indicated by very low PPVs for most indicators of client relations, follow-up, and integration. Further, data resulting from interviews with providers were markedly different from simulated client data, with only one indicator—discussion of multiple methods—performing with a high degree of accuracy. The remaining indicators were plagued with low specificity and/or low predictive values. These results, in sum, suggest a poor ability of observational and interview data to identify providers not engaging in high-quality service provision and weak confidence that providers observed participating (or reported to participate) in certain behaviors are likely to do so under normal conditions.

In considering possible explanations for the poor performance of standard instruments, we can call on a number of factors previously noted in the literature such as courtesy bias or poor recall on the part of clients or desire on the part of providers to be seen in the best possible light by the interviewer. However, we also suggest that providers and clients may sometimes *un*knowingly offer inaccurate information due to interview questions that are vague or difficult to understand. For example, clients were asked, "Did your provider help you select a method?" Yet, the client may not know whether or not the provider helped them select a method because they may not know what constitutes "help." If the client already knew the method she wanted to use on arrival at the facility and the provider simply asked some questions to determine the client's medical eligibility, the client may not interpret this as receiving help from the provider in selecting an appropriate contraceptive method. Similarly, providers may also experience confusion regarding the meaning of helping clients select a method. Providers are trained to ensure clients have the freedom to choose their preferred method without coercion on the part of the provider; as such, providers may shy away from reporting their helpfulness in method

selection for fear of being reprimanded for engaging with clients in too directive of a manner. It is also possible that the specifics of an individual's circumstances may render certain counseling questions less relevant. For example, a client who is already certain of her preferred method prior to arriving at the health facility may preclude a discussion of other available methods by verbalizing her predetermined preference early in the counseling session.

Bearing in mind this demonstration of limited validity of standard instruments, I next estimated the association between family planning service quality and contraceptive use in urban Kenya using existing individual- and facility-level baseline data collected in 2010 and 2011 by the MLE Project. This analysis found significant associations between three aspects of family planning service quality and current contraceptive use: method choice, information given to clients, and client-provider relations. The specific indicators within these quality aspects significantly associated with modern method use included keeping a mix of methods on hand for clients throughout the year and employing service providers who inquire into the client's family planning preferences, discuss possible side effects with clients, and treat their clients "very well."

Surprisingly, the other three aspects of family planning service delivery (provider competence, follow-up mechanisms, and integrated services) showed no significant association with current contraceptive use among the women in our sample. It is difficult to ascertain whether this is because no association exists or because the instruments designed to measure these aspects do not capture their true meaning. Providers who have received in-service training on family planning provision are not necessarily more competent in service provision compared to those without in-service training. Moreover, although verbal reminders were not associated with current use, it is possible that written reminders or follow-up phone calls may influence contraceptive behavior related to

timely resupply. Regarding integration, this self-reported data may have been exaggerated; such misreporting may attenuate existing relationships.

This analysis identified several modifiable components of family planning service quality with the potential to increase contraceptive use within a country with high unmet need for family planning. Although the limitations of the data collection instruments make it difficult to know the true extent of associations between each quality aspect and the outcome of contraceptive use, our results suggest that increases in contraceptive prevalence may be responsive to enhancements to the contraceptive method mix and supply chain as well as improvements in the ability of providers to ascertain client preferences, excel in client treatment, and impart critical information on a method's potential side effects. The presence of null results for several aspects of quality suggests the need for more specific measures of provider technical competence as well as more innovative strategies for encouraging contraceptive continuation and perhaps more valid measurements of integrated service provision.

Both of these study aims contribute novel information to the literature on family planning service quality. Numerous prior studies have hypothesized the presence of information bias (including the Hawthorne effect, courtesy bias, recall bias, and social desirability bias) in studies using third-party observational and interview data to measure the quality of family planning service delivery (Bessinger & Bertrand, 2001; MEASURE Evaluation, 2001; Miller et al., 1991, Simmons & Elias, 1994; Whittaker et al., 1996). Our findings confirm this hypothesis, suggesting poor validity of all three standard instruments tested. This study is the first to document the degree to which standard tools fail to provide a true picture of service provider behavior and supports the call of several prior studies for more routine use of simulated client data either to replace or supplement standard tools. These prior studies are in agreement with our recommendation for more

widespread use of simulated client data, citing the usefulness of this type of data for examining service quality in the field of international family planning (Brown et al., 1995; Huntington & Schuler, 1993; Madden et al., 1997).

In comparing descriptive results from our multivariate study with earlier studies conducted in Kenya with the aim of describing quality, it appears that discussion of side effects is more prevalent now compared with 20 years prior; however, discussion of multiple methods is less common. Discussions with clients of an appropriate return date and general client satisfaction were consistently high (above 90%) in both time periods. Notably, comparisons between our recent findings and the prior assessment are problematic given the restriction to urban areas and the inclusion of private facilities in our study and a much smaller sample of clients and use of observational data in the previous study. Regarding findings from our multivariate analysis, a prior multi-level study from Tanzania, in agreement with our results, found an association between the information provided to clients and current contraceptive use (Arends-Kuenning & Kessy, 2007). However, this study measured information by the availability of educational and promotional material rather than discussion of side effects, method selection, or proper method use, making comparisons between the two studies problematic.

B. Study Strengths

In testing the validity of standard measurements of family planning service delivery, this is the first study to explore the accuracy of family planning quality measures and thereby contributes important information to those in the field of international family planning. There are also several strengths of the multivariable regression analysis included in this study, which uses data from the MLE project. The MLE project is the first large-scale survey to be able to link individual women to a

facility where they receive services; to our knowledge, no other studies have been able to link individual women to their current health facility. The MLE project is also the first large-scale survey to focus exclusively on urban populations in developing countries, allowing for an in-depth investigation of this rapidly growing population. In particular, the MLE project sampling strategy over-sampled slum populations to ensure adequate inclusion of this group. Last, this is one of only a handful of studies to consider all six aspects of quality as well as facility infrastructure and is the first comprehensive situation analysis conducted in Kenya since the 1990s.

C. Study Limitations

As mentioned previously, the validation component of this study represents a novel contribution to the field of international family planning. The lack of prior studies, however, resulted in several study design challenges. For example, during the design phase of the validation study, investigators were not aware that many of the selected facilities use a service provider rotation schedule in which only one or a small number of the total providers at the facility offer family planning services each week, month, or quarter. Therefore, our initial goal of obtaining simulated observations on the entire census of providers was not feasible in the existing timeframe. Many providers also could not be observed by a third-party observer or did not see new clients who were subsequently interviewed by our research team. Therefore only 29% to 45% of existing service providers at the selected health facilities in Kisumu could be included in the various aspects of this analysis and many of those included experienced repeated simulated client observations. Although concerned about the potential for selection bias resulting from our inability to collect all types of data for all providers, it is important to note that few differences were seen in the background and professional characteristics of those providers included in the analysis compared to those that could not be included.

Another potential limitation of the validation analysis arises from the reference standard being based on a single simulated client visit. As such, the validity of results depends on how consistent providers are in their behaviors across all visits. However, we found no substantively different numerical results when we tested the sensitivity of our findings by repeating our analysis with a different randomly selected visit among those providers (n=31) who received more than one simulated client visit.

Last, some may question the appropriateness of the simulated client method as a reference standard. We acknowledge that the simulated client method is not without imperfections with respect to the understanding and/or recall of the events taking place during family planning counseling sessions. However, we took several steps to ensure data collected by simulated clients were as accurate as possible, such as use of an objective, quantitative instrument and extensive training and role-play with simulated clients as well as practice in non-study facilities. Simulated clients recorded their observations as soon as they left the health facility and reviewed all responses with the study principal investigator on the same day, helping reduce imperfect recall or recording errors. Simulated clients were also carefully selected during a week-long recruitment period to represent the catchment area of participating facilities, helping ensure their believability as real clients.

There are also some limitations of the multivariate analysis, which used data from the MLE project, warranting discussion. Most notably, 22% of the women in the original unweighted sample reportedly receive services from a healthcare facility but could not be linked to a facility at which the MLE project collected baseline facility-level data. As a result, this proportion of the sample could not be included in the analysis. Because excluded women differed from those included in terms of marital status and parity,

caution must be used in generalizing results to a larger population, particularly those who are unmarried and/or nulliparous.

Additionally, the multi-level nature of this analysis invites ecological fallacy. Although it may be true that the majority of provider or client self-reports suggest a facility provides poor quality of care, it is entirely possible for an individual woman attending the same facility to receive excellent care. This will be especially true in facilities with multiple providers. It is also likely that providers vary their performance from client to client or may fail to provide an accurate report of their service delivery behaviors in an effort to portray their performance in a positive light. In a similar manner, client responses may be subjected to social desirability or courtesy bias. The validity of the three survey instruments employed in this study is jeopardized by the potential for inaccurate answers on the part of providers and clients, as seen in the results of the first study aim.

D. Public Health Implications

There are tremendous public health implications of this research. An estimated 350,000 women die every year in developing countries due to complications related to pregnancy and childbirth. In addition, an estimated 215 million women would like to avoid pregnancy but are not using any modern method of family planning. Removing barriers to contraceptive use has the potential to reduce maternal deaths and may also protect the health of children and infants living in developing countries. Therefore, identifying ways to get effective contraception into the hands of women who need it is of critical importance. Although quality of care is widely acknowledged to be an important reproductive right, little is known about the impact of quality on contraceptive use or which elements of quality are most important. These results identify select aspects of quality most closely associated with contraceptive use and also suggest the need for

reformed methods of data collection, thereby informing quality-related assessments and interventions.

E. Future Directions

The results of the validation component of this study have implications for future assessments and investigations into family planning service quality and also for interventions designed to improve the quality of family planning services. Although third-party observations and client interviews were able to accurately assess some aspects of service delivery, numerous deficiencies in the accuracy of measurement were identified among the three standard instruments, suggesting the need for modified or expanded methods of data collection on family planning service quality. It may be beneficial to consider revisions to questions that appear to be misunderstood by family planning clients and providers. Additionally, simulated client data should be included in quality assessments to allow for more complex analysis through triangulation among the instruments. Greater use of the simulated client methodology in more settings will allow for better identification of areas of deficiency in the quality of family planning service delivery.

The results of the multivariate analysis call for specific improvements in the delivery of contraceptive services in the areas of method choice, discussion of client preferences and method side effects, and also client treatment. Strengthening of the contraceptive supply chain and increased attention around the importance of positive and informative interactions between providers and clients has the potential to increase contraceptive use in urban Kenya.

Over the past 25 to 30 years, a number of organizations interested in securing reproductive rights and increasing contraceptive prevalence within regions burdened by high rates of maternal and infant mortality have suggested that improvements in family

planning service quality may result in greater client satisfaction and greater uptake and sustained use of contraception. As a result of this hypothesis, tremendous work has been undertaken to define and measure quality of care within the context of family planning service delivery, yet little evidence exists that quality improvements may bring about the expected changes in contraceptive use. These findings offer evidence of the need for revised methods in collecting data on family planning service quality and more widespread use of simulated client data. With the use of existing instruments, a few areas of improvement have been identified but the true extent of the association between quality and use will require revised data collection techniques.

APPENDIX I. INFORMED CONSENT DOCUMENTS

MLE Measurement, Learning & Evaluation Project for the Urban Reproductive Health Initiative

Health Facility Audit – Kenya – 2012

Facility Audit Introduction and Informed Consent for Facility Supervisors

Hello! My name is _____, I am part of a research team working under Tupange with technical assistance from the Measurement, Learning & Evaluation project. We are carrying out research on family planning in urban areas of Kenya. Your site was selected as a participating facility in a private and public health facility sector survey in this city. Your participation in this study will help to improve family planning services. We will be asking questions to selected health facilities about the reproductive health services including family planning services they provide. Your answers will not be shared with anyone outside this project. Your name will not appear on the survey. We will not share answers with your clients, colleagues, or anyone else. At the end of the study, we will put all the answers together and make a report. May I continue?

MLE Measurement, Learning & Evaluation Project for the Urban Reproductive Health Initiative

Service Provider Interview– Kenya 2012
Informed Consent Form for Provider Interviews

Service Provider Consent Form
Purpose of the study

Hello! My name is _____, I am part of a research team working under Tupange with technical assistance from the Measurement, Learning & Evaluation project. We are carrying out research on family planning in urban areas of Kenya. Your participation in this study will help to improve family planning services in this city. We will be asking questions to select service providers (nurses, doctors and auxiliary nurse midwives) about the family planning services they provide.

Explanation of Procedures

We will interview you in a room where you cannot be overheard, to ensure confidentiality. The interview will take about 30 minutes. We will ask you about demographics, pre-service training, in-service training, counseling procedures for FP, consent requirements for delivery of family planning.

You may choose not to give the interview, or not to answer a question for any reason. You can stop the interview at any time by telling me that you want to stop. If you decide not to give the interview or not to answer a question there will be no effect on your job, or professional standing. We will only interview you once.

Confidentiality

Your answers will not be shared with anyone outside this project. Your name will not appear on the survey. We will not share answers with your clients, colleagues, government officials or anyone else. At the end of the study, we will put all the answers together and make a report.

Who is taking part in this study?

Your facility was selected from a complete list of all facilities in the city.

Benefits

Research helps society by providing new knowledge. You may not benefit directly from this survey. However, your answers will be important for planning better programs to make sure women can access the health care they need.

Risks and Discomforts

There is the possibility you may feel uncomfortable about a question I ask. If you feel uncomfortable about any of the questions, you do not have to answer them. I can skip those questions and go on to the next section. You can end the interview at any time.

There is also the possibility that someone may approach us during the interview to find out what we are discussing. We intend to do this interview in private, if someone approaches us, we will stop the interview until we can continue in private.

Costs and Payment for Participation

There are no costs for being in this study. You will not receive any money for taking part in this study.

Questions

This study has been approved by the Kenya Medical Research Institute, and the University of North Carolina (USA). If you have any questions about this study or the results, you can contact the following: the study principle investigator at the Measurement, Learning & Evaluation Project, Ms. Tumlinson Kat at +254 0724 827 623, The Secretary, National Ethics Review Committee at Kenya Medical Research Institute, PO Box 54840-00200 Nairobi, Telephone numbers: +254 (020) 2722541, 0722205901, 0733400003, email: ERC@kemri.org; or the Institutional Review Board at the University of North Carolina at +1 919-966-3113. You have the right to ask, and have answered, any questions you may have about this research. If you have questions or concerns, you should contact the researchers listed above, or ask me before or after the interview. Do you have any questions now?

Consent

Now, can you tell me if you agree to participate in this research? If you say yes, it means that you have agreed to be part of the study.

1…. Yes 2….. No

Would you like a copy of this document?

Signature of provider: _____

Date: _____

Signature of interviewer: _____

MLE Measurement, Learning & Evaluation Project for the Urban Reproductive Health Initiative

Service Provider Interview – Kenya 2012
Informed Consent Form for Exit Interviews

Female Consent Form: Exit Survey
Purpose of Study
Oboke mar yie mar mine: Penjo ma ogik; Gima omiyo watimo nonro

Hello! My name is _____, I am part of a research team working under Tupange with technical assistance from the Measurement, Learning & Evaluation project. We are carrying out research on family planning and reproductive health in urban areas of Kenya. Your participation in this study will help to improve family planning and reproductive health services in this city. We will be asking questions to women who received services at this facility.

Nadi nyinga en _____, an achiel kuom jotim nonro matiyo kod migawo miluongo ni 'Tupange' ma be tiyo kachiel gi 'Measurement, Learning & Evaluation project'. Watimo nonro kuom komo nyuol kod ngima mar nyuol e bombe ma Kenya. Bedo achiel kuom jogo mabiro bedo e nonroni biro keto maber yore mag komo nyuol kod ngima mar nyuol e bomani. Wabiro penjo mine mayudo ga kony e kar thieth ma ka penjo moko.

Explanation of Procedures
Yoo ma wabiro tiyogo

We will interview you in a room where you cannot be overheard, to ensure confidentiality. The interview will take about 30 minutes. I will ask you questions about your home, family planning, health-care seeking, and family size decisions. You may choose not to do the interview, or not to answer a question for any reason. You can stop the interview at any time by telling me that you want to stop. If you decide not to do the interview or not to answer a question, no harm will come to you, and there will be no effect on your access to health services today or in the future. I will only interview you once.

Wabiro penji penjo moko e ot ma onge ng'ama nyalo winji mondo waket maling'ling. Penjo biro kawo thuolo maromo dakika piero adek. Abiro penji penjo kuom dalani, yore mag komo nyuol,tiyo kod kuonde thieth kod ng'ado rieko mar kwan mar nyithindo. Inyalo yiero mondo kik iduok penjogi, kata mondo kik iduok penjo moro amora kuom dwaro mari. Inyalo weyo duoko penjo gi saa asaya ka ikona ni mondo kik adhi nyime, ka ok iyie dwoko penjogi kata ka itamori duoko penjo moro amora, onge rach mabiro timoreni, kendo onge rach mabiro timoreni e yudo kony mar thieth sani kata e ndalo mabiro. Penjogi abiro penji mana dichiel kende.

Confidentiality

Maling'ling'

Your answers will not be shared with anyone outside this research project. Your name will not appear on the survey. We will not share answers with community members, health providers, family or anyone else. At the end of the study, we will put all the answers together and make a report.

Duoko magi ok bi nyis ng'ato ang'ata mantiere oko mar nonroni, nyingi ok bi keti e oboke mar nonro, dwoko mari ok wabi nyiso jo gweng', jochiw thieth, anyuola kata ng'ato moro amora.E giko nonroni, wabiro keto duoko tee kanyakla aeto waloso duoko mawayudo.

Who is taking part in this study?

Gin jok mage manyalo bedo e nonroni?

We are interviewing women who visited this facility and received family planning or maternal and child health services, during the study period.

Penjogi wapenjo mine ma obiro limbe kar thieth ma kae kendo oyudo kony mar komo nyuol kata kony mar nyithindo matindo e kinde ma watimo nonroni.

Benefits

Ber

Research helps society by providing new knowledge. You may not benefit directly from this survey. However, your answers will be important for planning better programs to make sure women can access the health care they need.

Nonro konyo oganda gi rieko manyien. Onge ber ma ibiro neno in iwuon. Makmana ni duoko meki biro konyo maduong' e chano migawo mamoko mabiro neno ni mon duto yudo kony mag thieth magidwaro.

Risks and Discomforts

Rach

There is the possibility you may feel uncomfortable about a question I ask. If you feel uncomfortable about any of the questions, you do not have to answer them. I can skip those questions and go on to the next section. You can end the interview at any time.

There is also the possibility that someone may approach us during the interview to find out what we are discussing. We intend to do this interview in private, if someone approaches us, we will stop the interview until we can continue in private.

Be nyalore ni inyalo winjo marach e wii penjo moko mabiro penjo.Ka iwinjo marach kuom penjo moro amora, ok ochuno ni nyaka iduoki, anyalo kalo penjono to adhi e penjo machielo. Inyalo chungo penjogi saa asaya.

Bende nyalore ni ng'ato nyalo biro irwa sama apenji penjogi mondo ong'e gima wawuoyoe. Wabiro penjo penjogi kama ling'ling', ka ng'ato obiro to wabiro weyo penjo penjogi nyaka wayud thuolo mar dhi nyime kama ling'ling'.

Costs and Payment for Participation

Omuom kod chudo mar bedo e nonroni

There are no costs for being in this study. You will not receive any money for taking part in this study.
Onge chudo mar bedo e nonronni. Ok ibi yudo omuom moro amora kuom chiwori e nonroni.

Questions

Penjo

This study has been approved by the Kenya Medical Research Institute, and the University of North Carolina (USA). If you have any questions about this study or the results, you can contact the following: the study principle investigator at the Measurement, Learning & Evaluation Project, Ms. Tumlinson Kat at +254 0724 827 623, The Secretary, National Ethics Review Committee at Kenya Medical Research Institute, PO Box 54840-00200 Nairobi, Telephone numbers: +254 (020) 2722541, 0722205901, 0733400003, email: ERC@kemri.org; or the Institutional Review Board at the University of North Carolina at +1 919-966-3113. You have the right to ask, and have answered, any questions you may have about this research. If you have questions or concerns, you should contact the researchers listed above, or ask me before or after the interview. Do you have any questions now?
Nonro ni osepuodhi gi kar thieth kod timo nonro ma Kenya-KEMRI, kod Mbalariany ma North Carolina (USA). Ka in kod penjo moro amora mar nonroni kata duoko, inyalo tudori gi jogi: ja chung' ne nonro e migawo miluongoni 'Measurement, Learning & Evaluation Project' manyinge en Ms. Tumlinson Kat e nambani +254 0724 827 623, Ja goro mar¸jobura mochung' ne chike mag nonro mantiere kar thieth kod timo nonro ma Kenya e PO Box 54840-00200 Nairobi, +254 (020) 2722541, 0722205901, 0733400003, ERC@kemri.org; kata jochung' ne chike mag nonro e Mbalariany ma North Carolina e +1 919-966-3113. Intiere gi ratiro mar penjo, yudo dwoko, mar penjo moro amora ma intiere godo kuom nonroni. Ka intiere kod penjo moro amora, tudri kod jo tim nonro manyinge gi nitie malo, kata penja ka podi kata bang' duoko penjogi. Be intie gi penjo moro amora sani?

Consent
Yie

Now, can you tell me if you agree to participate in this research? If you say yes, it means that you have agreed to be part of the study.
Koro, be inyalo kona ka iyie bedo e nonroni? Ka iwacho ni Ee to mano nyiso ni iyie bedo e nonroni.

□ Ee □ Ooyo

Would you like a copy of this document?
Be diher bedo gi oboke machalo gi ma?
Seyi mar japenj penjo: _____
Tarik: _____

Observation Guide – Kenya 2012
Informed Consent Form for Observing Clients

Female Consent Form: Third party observation

Purpose of the study

Oboke mar kwayo rusa kuom joma mine: Neno moa kuom ngat mar adek (Ber mar nonro)

Hello! My name is _____, I am part of a research team working under Tupange with technical assistance from the Measurement, Learning & Evaluation project. We are doing a survey to find out about the services provided at this clinic. The clinic has given us permission to do this survey. Your participation in this study will help to improve family planning services in this city. We would like your permission to observe your visit with the clinic staff and to ask you a few questions about the visit afterwards.

Nade, nyinga en..... an achiel kuom jo tim nonro matiyo kod migawo miluongo ni 'Tupange' ma be tiyo kachiel gi 'Measurement, Learning & Evaluation project'. Watimo norno kalure gi thieth mopogore opogore mayudore e kar yudo thieth ni. Waseyudo thuolo mondo watim nonroni e kar yudo thieth ni. Bedo achiel kuom jogo mabiro bedo e nonroni biro konyo loso yore mag komo nyuol e bomani. Wakwayo thuolo mari mondo wabed wane kaka iyudo thieth kendo wapenji penjo mako matin kuom thieth miyudo e kinde ma bange.

Explanation of Procedures

Yoo ma wabiro tiyogo

During your visit, I will be sitting a little apart from you and the clinic staff. You do not have to be observed. You will not be denied any services if you decide not to participate. If you agree to participate, you can change your mind at any time during the visit.

E kinde ma iyudo thieth, a biro bedo mabor matin kodi gi jachiw thieth. Ok ochuno ni nyaka ane kaka iyudo thieth. Ok nyal tami yudo thieth nikech ok ihero bedo achiel kuom jomanitie e nonroni. Ka iyie bedo achiel kuom joma nitie e nonroni, ingi thuolo mar loko pachi saa asaya e kindeni mar yudo thieth.

Confidentiality

Maling'ling'

The information collected during this observation will not be shared with anyone outside this project. Your name will not appear on the survey and everything that is observed will be kept strictly confidential. We will not share the information collected during your visit with community members, health providers, family or anyone else. At the end of the study, we will put all the answers together and make a report.

Duoko mari ok bi nyis ng'ato a ng'ata mantie oko mar nonroni. Nyingi ok bi neno e gigo mag nonroni kendo dwoko mari mar thieth ok bi nyis ng'ato. Dwoko mari mar thieth ok wabi nyiso jo gweng', jochiw thieth, anyuola kata ng'ato moro amora. E giko nonroni, wabiro keto duoko duto kanyakla kawalosogo report.

Who is taking part in this study?

Gin jok mage manyalo bedo e nonroni?

We are asking all new family planning clients visiting this facility and 18 other large facilities in Kisumu during the study period to participate.

Wakwayo ji manyien mabiro yudo gigo mag komo nyuol e kar thieth ni gi mamoko 18 manie e boma ma Kisumo e kinda mag nonroni mondo o bed kanyakla kodwa e nonroni.

Benefits

Ber

Research helps society by providing new knowledge. You may not benefit directly from this survey. However, your answers will be important for planning better programs to make sure women can access the health care they need.

Nonro konyo oganda gi rieko manyien. Samoro ok inyal neno ber mar nonroni kuomi iwuon. Katakamana, duokoni biro konyo maduong' e chano migepe mamoko mondo jomamon oyud thieth maber kaka dwarore.

Risks and Discomforts

Rach

There is the possibility you may feel uncomfortable discussing your healthcare needs with me in the room. If you feel uncomfortable you can ask me to leave your counseling session at any time.

Nyalore ni inyalo yudo penjo moko ma ok diher duoko ka antie kodu e kar thieth. Ka nitie penjo makamano, bed thuolo mondo inyisa awuog oko mar kar thieth modo iyud thieth ka in thuolo.

Costs and Payment for Participation
Omuom kod chudo mar bedo e nonroni

There are no costs for being in this study. You will not receive any money for taking part in this study.

Onge chudo moro a mora mar bedo achiel kuom jok mantie e nonroni. Ok ibi yudo chudo moro amora kuom bedo a chiel kuom jogo mantie e nonroni.

Questions
Penjo

This study has been approved by the Kenya Medical Research Institute, and the University of North Carolina (USA). If you have any questions about this study or the results, you can contact the following: the study principle investigator at the Measurement, Learning & Evaluation Project, Ms. Tumlinson Kat at +254 0724 827 623, The Secretary, National Ethics Review Committee at Kenya Medical Research Institute, PO Box 54840-00200 Nairobi, Telephone numbers: +254 (020) 2722541, 0722205901, 0733400003, email: ERC@kemri.org; or the Institutional Review Board at the University of North Carolina at +1 919-966-3113. You have the right to ask, and have answered, any questions you may have about this research. If you have questions or concerns, you should contact the researchers listed above, or ask me before or after the interview. Do you have any questions now?

Nonroni osepuodhi gi migawo, motelo ni puodho nonro duto matimore e pinywaka, miluongoni 'Kenya Medical Research Institute' kod mbalariany miluongoni 'University of North Carolina (USA)'. Ka ingi penjo moro amora kalure gi nonroni kata duoko, inyalo tudori gi jogi: ja chung' ne nonro e migawo miluongoni 'Measurement, Learning & Evaluation Project' manyinge en Ms. Tumlinson Kat e nambani +254 0724 827 623, Ja goro mar, National Ethics Review Committee mantiye kar thieth kod timo nonro ma Kenya e PO Box 54840-00200 Nairobi, +254 (020) 2722541, 0722205901, 0733400003, ERC@kemri.org; kata jogo motelo ne puodho nonro kamiluongoni 'the Institutional Review Board at the University of North Carolina' e namba ni +1 919-966-3113. Oyieni penjo, kendo yudo duoko, kaluregi penjo duto maingodo kuom nonroni. Ka ingi penjo moro a mora, tudri gi jok motelo ne nonroni, kata inyalo penja kapok achako penjo kata bang' penjo. Be ingi penjo moro a mora nyaka sani?

Consent
Yie

Now, can you tell me if you agree to participate in this research? If you say 'yes', it means that you have agreed to be part of the study *(interviewer – circle answer)*.

Koro inyalo nyisa ka iyie mondo ibed achiel kuom joma nitie e nonroni? Ka iwacho ni 'Eee', mano nyiso ni iyie bedo achiel kuom joma nitie e nonroni (interviewer – circle answer)

1…. Yes 2….. No

Would you like a copy of this document?
Be diher bedo gi oboke mar nonroni?
Signature of interviewer: _____
Date: _____

Observation Guide – Kenya 2012

Informed Consent Form for Observing Providers

Service Provider Consent Form: Third party observation

Purpose of the study

Hello! My name is _____, I am part of a research team working under Tupange with technical assistance from the Measurement, Learning & Evaluation Project. We are doing a survey to find out about the services provided at this clinic. The clinic has given us permission to do this survey. Your participation in this study will help to improve family planning services in this city. We would like your permission to observe your session with a new family planning client.

Explanation of Procedures

During the family planning counseling session, I will be sitting a little apart from you and the client. You can choose not to be observed. There will be no effect on your job or professional standing if you decide not to participate. If you agree to participate, you can change your mind at any time during the visit.

Confidentiality

The information collected during this observation will not be shared with anyone outside this project. Your name will not appear on the survey and everything that is observed will be kept strictly confidential. We will not share information collected during the family planning counseling session with your clients, colleagues, government officials or anyone else. At the end of the study, we will put all the answers together and make a report.

Who is taking part in this study?

We are conducting this study at 19 large health facilities in Kisumu.

Benefits

Research helps society by providing new knowledge. You may not benefit directly from this survey. However, your answers will be important for planning better programs to make sure women can access the health care they need.

Risks and Discomforts

There is the possibility the client will feel uncomfortable discussing her healthcare needs with you while I am in the room. If you feel the client is uncomfortable, you can ask me to leave your counseling session at any time.

Costs and Payment for Participation

There are no costs for being in this study. You will not receive any money for taking part in this study.

Questions

This study has been approved by the Kenya Medical Research Institute, and the University of North Carolina (USA). If you have any questions about this study or the results, you can contact the following: the study principal investigator at the Measurement, Learning & Evaluation Project, Ms. Tumlinson Kat at +254 0724 827 623, The Secretary, National Ethics Review Committee at Kenya Medical Research Institute, PO Box 54840-00200 Nairobi, Telephone numbers: +254 (020) 2722541, 0722205901, 0733400003, email: ERC@kemri.org; or the Institutional Review Board at the University of North Carolina at +1 919-966-3113. You have the right to ask, and have answered, any questions you may have about this research. If you have questions or concerns, you should contact the researchers listed above, or ask me before or after the interview. Do you have any questions now?

Consent

Now, can you tell me if you agree to participate in this research? If you say yes, it means that you have agreed to be part of the study.

1…. Yes 2….. No

Would you like a copy of this document?

Signature of the provider: _____

Date: _____

Signature of the interviewer: _____

APPENDIX II. DATA COLLECTION INSTRUMENTS

MLE Measurement, Learning & Evaluation Project for the Urban Reproductive Health Initiative

Health Facility Audit – Kenya – 2012

CITY NAME & CODE _____ _____ (Nairobi=1, Mombasa=2, Kisumu =3, Machakos=4, Kakamega=5) DISTRICT NAME &CODE_____ _____ SUBLOCATION NAME & CODE (OFFICE ONLY)_____ _ FACILITY NAME AND CODE _____ _____ FACILITY PHYSICAL ADDRESS_____ _____	[___] [___|___] [___|___] [___|___|___|___|___| (City + Fac. type + Facility ID)
TYPE OF HEALTH FACILITY	**PUBLIC SECTOR** GOVT. NATIONAL/PROVINCIAL REFERAL HOSPITAL. ……11 GOVT. DISTRICT HOSPITAL……12 GOVT.SUB-DISTRICT HOSPITAL ……13 GOVT. HEALTH CENTRE…… …….14 GOVT. DISPENSARY ……..……..15 OTHER PUBLIC_____18 (SPECIFY) **PRIVATE SECTOR** PRIVATE HOSPITAL……21 PRIVATE CLINIC……..22 NURSING/MATERNITY HOME……..23 OTHER PRIVATE_____24 (SPECIFY) **FBO** MISSION HOSPITAL……31 FAITH-BASED HOME/HEALTH CENTRE……32 **OTHER** OTHER NGO HOSPITAL……41 OTHER NGO CLINIC……..42 **OTHER** _____96 (SPECIFY)

INTERVIEWER VISITS				
VISIT No.	**1**	**2**	**3**	**FINAL VISIT**
DATE	DAY/MONTH/YEAR [____/_____/_11_]	DAY/MONTH/YEAR [____/_____/__11_]	DAY/MONTH/YEAR [____/_____/__11_]	DAY [____|____] MONTH [____|____] YEAR [_2_|_0_|_1_|_1_]
INTERVIEWER'S NAME	_____	_____	_____	_____
INTERVIEWER CODE	☐☐☐	☐☐☐	☐☐☐	
RESULT*	☐	☐	☐	_____
NEXT VISIT: DATE	[____/_____/11_]	[____/_____/11_]	[____/_____/11_]	
TIME	☐☐ ☐☐ H H M M	☐☐ ☐☐ H H M M	☐☐ ☐☐ H H M M	TOTAL NO. OF VISITS

***RESULT CODES:**

1. COMPLETED
2. FACILITY MOVED OR IS DESTROYED
3. RESPONDENT NOT AVAILABLE (NOT AT WORK, ON STRIKE, ETC)
4. RESPONDENT REFUSED
5. PARTLY COMPLETED
6. POSTPONED
7. OTHER _____ (Specify)

RESPONSIBILITY OF MAIN PERSON INTERVIEWED - **CIRCLE ONE**

CLINIC MANAGER/FACILITY ADMINISTRATOR……..…..01
FACILITY IN CHARGE……..……..02
DEPUTY FACILITY INCHARGE…….....03
DEPUTY IN CHARGE……...04
DEPARTMENTAL IN –CHARGE ……..05
OTHER _____ _____..96
(SPECIFY)

NAME_____

MOBILE PHONE NUMBER
[_0__|__7_][___|___][___|___][___|___][___|___]

SEX OF MAIN PERSON INTERVIEWED

MALE……..1
FEMALE……..2

SUPERVISOR	**OFFICE EDITOR**	**KEYED BY**
NAME…… CODE: ☐☐ DATE [____ /__ ___/ 11_] DD MM YY	NAME…… CODE: ☐☐ DATE [____ /__ ___/ 11_] DD MM YY	NAME…… CODE: ☐☐ DATE [____/ ____/ 11_] DD MM YY

Introduction

Hello! My name is _____, I am part of a research team working under Tupange with technical assistance from the Measurement, Learning & Evaluation project. We are carrying out research on family planning in urban areas of Kenya. Your site was selected as a participating facility in a private and public health facility sector survey in this city. Your participation in this study will help to improve family planning services. We will be asking questions to selected health facilities about the reproductive health services including family planning services they provide. Your answers will not be shared with anyone outside this project. Your name will not appear on the survey. We will not share answers with your clients, colleagues, or anyone else. At the end of the study, we will put all the answers together and make a report. May I continue?

GENERAL FACILITY INFORMATION

Source	Questions	Coding	Skip/Notes
Q1.	RECORD THE TIME (IN 24 HOUR FORMAT) Hour …….. ☐☐ tes …….. ☐☐		
Q2.	In what year did this facility open? **PROBE, IF RESPONDENT SAYS DON'T KNOW: THIS IS VERY IMPORTANT**. Can you tell me how old this facility is? For example, would you say it is about 3 years old? 7 years old? (etc.) **FILL IN EITHER YEAR OPENED <u>OR</u> YEARS OLD.**	YEAR OPENED . . ☐☐☐☐ DON'T KNOW . . ……. .9998 **<u>OR</u>** YEARS OLD . . . . . ☐☐	
Q3.	On average, how many days per week is the facility open?	Days per week. . . . . ☐	
Q4.	What time does the facility typically open? WRITE ANSWER ON 24-HOUR CLOCK (IE. IF OPENS AT 7:00 AM, MARK 07:00	☐☐ ☐☐ Open 24 hours a day……99:91 →	**Q6**
Q5.	What time does the facility typically close? **WRITE ANSWER ON 24-HOUR CLOCK (IE. IF CLOSES AT 7:00 PM, MARK 19:00**	☐☐ ☐☐	
Q6.	How many **permanent regular staff** offer DIRECT **clinical services** in this facility? List the staff by type (cadre). 1. Obstetrician/Gynecologists (OB/GYN) 2. Surgeons 3. Pediatricians 4. Physicians 5. Pharmacists 6. Medical Officers 7. Clinical Officers 8. Registered Nurses 9. Enrolled Community Nurses 10. BSC Nurses 11. Community health extension workers (CHEWs) 12. Public health officers (PHO) 13. Lab technologists/technicians 14. Health Information Officers 15. Nutritionists 16. VCT providers/counselors 17. Others_____ **FOR LARGE MEDICAL HOSPITALS AND COLLEGES, PLEASE PROBE TO ESTIMATE TO YOUR BEST ABILITY.** **INCLUDE DIRECT HIRES AND STAFF HIRED BY PARTNERS** ***NOTE: PLEASE EXCLUDE DOCTORS IN RESIDENCY TRAINING, INTERNS, VOLUNTEERS** **You can read out the options:**	OB/GYNS [___|___|__] SURGEONS [___|___|__] PEDIATRICIANS [___|___|__] PHYSICIANS [___|___|__] PHARMACISTS [___|___|__] MEDICAL OFFICERS [___|___|__] CLINICAL OFFICERS [___|___|__] REGISTERED NURSES [___|___|__] ENROLLED COMM.NURSES [___|___|__] BSC NURSES [___|___|__] CHEW [___|___|__] PUBLIC HEALTH OFFICER [___|___|__] LAB TECHS [___|___|__] HEALTH INFO OFFICER [___|___|__] NUTRITIONISTS [___|___|__] VCT PROVIDERS [___|___|__] OTHER SPECIFY_____ [___|___|__]	

Now I would like to ask you some questions about the permanent and contract staff who work in this facility. We would like to ask their names, positions and departments, so that we can randomly sample a few to interview using a separate questionnaire. These few will then represent the group. Remember that this is for research purposes only and we will keep all details strictly confidential.

STAFF

LIST NAMES OF ALL PERMANENT REGULAR STAFF INVOLVED IN PROVIDING REPRODUCTIVE HEALTH AND CHILD CLINICAL HEALTH SERVICES, INCLUDING FAMILY PLANNING, MATERNAL AND CHILD HEALTH AND STI/VCT/HIV SERVICES. MATERNAL HEALTH SERVCIES INCLUDE ANTENTAL CARE, PMTCT, DELIVERY CARE, POST NATAL CARE AND POST ABORTION CARE SERVCES. CODE "YES" IN Q7c FOR THOSE PROVIDERS ON DUTY TODAY, AND "NO" FOR THOSE NOT ON DUTY AT ANY TIME TODAY.

FOR EACH PERMANENT SERVICE PROVIDER WHO IS **NOT** ON DUTY TODAY, WRITE "999" (NOT ELIGIBLE) IN **Q7d**. FOR ALL PERMANENT SERVICE PROVIDERS WHO **ARE** ON DUTY TODAY, ASSIGN A NUMBER TO EACH OF THEM (SERIALIZE) IN Q7d STARTING WITH "01" TO THE LAST NUMBER. **DO NOT INCLUDE SERVICE PROVIDERS WHO DO NOT DIRECTLY PROVIDE RH AND CHILD HEALTH SERVICES, E.G. PHARMACIST. ALSO, DO NOT CONSIDER THE "999" AS PART OF THE NUMBERING BELOW**.

FOR FACILITIES WITH FOUR OR FEWER PROVIDERS ON DUTY TODAY, INTERVIEW ALL OF THEM. FOR FACILITIES WITH FIVE OR MORE PROVIDERS ON DUTY TODAY, WRITE ALL NUMBERS FROM Q7d (EXCEPT FOR "99") ON SMALL PIECES OF PAPER AND RANDOMLY SELECT FOUR PROVIDERS. ONCE YOU HAVE BALLOTED/SELECTED FOUR PROVIDERS FROM Q7d, CAREFULLY AND NEATLY CIRCLE THE NUMBERS IN Q7d FOR THOSE SELECTED.

Q7a. No. of staff	Q7b. NAME	Q7c. Is NAME scheduled to be on duty any time today?	Q7d. Serial number of sampled on-duty staff	Q7e. POSITION CODE	Q7f. Does NAME work full-time?	Q7g. SEX	Does NAME provide service(s)? *Please indicate by checking the box of the services that NAME provides.* Q7h. FAMILY PLANNING	Q7i. MATERNAL HEALTH/ OB-GYN	Q7j. CHILD HEALTH	Q7k. HIV /STI SERVICES
(01)		YES . . . . .1 NO 2			YES . . .1 NO. . . .2	MALE. . 1 FEMALE ...2	YES . . 1 NO . . .2	YES . . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(02)		YES . . . . .1 NO 2			YES . . .1 NO. . . .2	MALE . . . 1 FEMALE ...2	YES . . 1 NO . . .2	YES . . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(03)		YES . . . . .1 NO 2			YES . . .1 NO. . . .2	MALE . . . 1 FEMALE ...2	YES . . 1 NO . . .2	YES . . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(04)		YES . . . . .1 NO 2			YES . . .1 NO. . . .2	MALE . . . 1 FEMALE ...2	YES . . 1 NO . . .2	YES . . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(05)		YES . . . . .1 NO 2			YES . . .1 NO. . . .2	MALE . . . 1 FEMALE ...2	YES . . 1 NO . . .2	YES . . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(06)		YES . . . . .1 NO 2			YES . . .1 NO. . . .2	MALE . . . 1 FEMALE ...2	YES . . 1 NO . . .2	YES . . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2

(07)		YES . . . . .1 NO 2			YES . . .1 NO. . . .2	MALE . . . 1 FEMALE ...2	YES . . 1 NO . . .2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(08)		YES . . . . .1 NO 2			YES . . .1 NO. . . .2	MALE . . . 1 FEMALE ...2	YES . . 1 NO . . .2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(09)		YES . . . . .1 NO 2			YES . . .1 NO. . . .2	MALE . . . 1 FEMALE ...2	YES . . 1 NO . . .2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(10)		YES . . . . .1 NO 2			YES . . .1 NO. . . .2	MALE . . . 1 FEMALE ...2	YES . . 1 NO . . .2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(11)		YES . . . . .1 NO 2			YES . . .1 NO. . . .2	MALE . . . 1 FEMALE ...2	YES . . 1 NO . . .2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2

CODE:

1. Obstetrician/Gynecologists
2. Surgeons
3. Pediatricians
4. Physicians
5. Pharmacists
6. Medical Officers
7. Clinical Officers
8. Registered Nurses
9. Enrolled Community Nurses
10. BSC Nurses
11. (CHEWs)
12. Public health officers (PHO)
13. Lab technologists/technicians
14. Health Information Officers
15. Nutritionists
16. VCT providers/counselors

96 Other----------

STAFF

Q7a. No. of staff	Q7b. NAME	Q7c. Is NAME scheduled to be on duty any time today?	Q7d. Serial number of sampled on-duty staff	Q7e. POSITION CODE	Q7f. Does NAME work full-time?	Q7g. SEX	Does NAME provide service(s)? *Please indicate by checking the box of the services that NAME provides.* Q7h. FAMILY PLANNING	Q7i. MATERNAL HEALTH/ OB-GYN	Q7j. CHILD HEALTH	Q7k. HIV/STI SERVICES
(12)		YES . . . . .1 NO 2			YES. . . . .1 NO. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2
(13)		YES . . . . .1 NO 2			YES. . . . .1 NO. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2
(14)		YES . . . . .1 NO 2			YES. . . . .1 NO. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2

(15)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(16)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(17)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(18)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(19)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(20)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(21)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(22)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(23)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(24)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(25)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(26)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2

(27)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(28)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2

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96 Other----------

STAFF

Q7a. No. of staff	Q7b. NAME	Q7c. Is NAME scheduled to be on duty any time today?	Q7d. Serial number of sampled on-duty staff	Q7e. POSITION CODE	Q7f. Does NAME work full-time?	Q7g. SEX	Does NAME provide service(s)? *Please indicate by checking the box of the services that NAME provides.* Q7h. FAMILY PLANNING	Q7i. MATERNAL HEALTH/ OB-GYN	Q7j. CHILD HEALTH	Q7k. HIV/STI SERVICES
(29)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(30)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(31)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(32)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(33)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(34)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(35)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(36)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(37)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(38)		YES . . . . .1 NO 2			YES. . . . .1 O. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2

(39)		YES . . . . .1 NO 2			YES. . . . .1 NO. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(40)		YES . . . . .1 NO 2			YES. . . . .1 NO. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(41)		YES . . . . .1 NO 2			YES. . . . .1 NO. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(42)		YES . . . . .1 NO 2			YES. . . . .1 NO. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(43)		YES . . . . .1 NO 2			YES. . . . .1 NO. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(44)		YES . . . . .1 NO 2			YES. . . . .1 NO. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(45)		YES . . . . .1 NO 2			YES. . . . .1 NO. 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2

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STAFF

Q7a. No. of staff	Q7b. NAME	Q7c. Is NAME scheduled to be on duty any time today?	Q7d. Serial number of sampled on-duty staff	Q7e. POSITION CODE	Q7f. Does NAME work full-time?	Q7g. SEX	Does NAME provide service(s)? *Please indicate by checking the box of the services that NAME provides.* Q7h. FAMILY PLANNING	Q7i. MATERNAL HEALTH/ OB-GYN	Q7j. CHILD HEALTH	Q7k. HIV/STI SERVICES
(46)		YES . . . . .1 NO 2			YES. 1 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(47)		YES . . . . .1 NO 2			YES. 1 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(48)		YES . . . . .1 NO 2			YES. 1 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(49)		YES . . . . .1 NO 2			YES. 1 2	MALE . . . 1 FEMALE...2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO . . . .

										.2
(50)		YES . . . . .1 NO 2			YES. 1 . . .2	MALE . . . 1 FEMALE...2	YES . .. . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(51)		YES . . . . .1 NO 2			YES. 1 . . .2	MALE . . . 1 FEMALE...2	YES . .. . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(52)		YES . . . . .1 NO 2			YES. 1 . . .2	MALE . . . 1 FEMALE...2	YES . .. . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(53)		YES . . . . .1 NO 2			YES. 1 . . .2	MALE . . . 1 FEMALE...2	YES . .. . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(54)		YES . . . . .1 NO 2			YES. 1 . . .2	MALE . . . 1 FEMALE...2	YES . .. . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(55)		YES . . . . .1 NO 2			YES. 1 . . .2	MALE . . . 1 FEMALE...2	YES . .. . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(56)		YES . . . . .1 NO 2			YES. 1 . . .2	MALE . . . 1 FEMALE...2	YES . .. . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(57)		YES . . . . .1 NO 2			YES. 1 . . .2	MALE . . . 1 FEMALE...2	YES . .. . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(58)		YES . . . . .1 NO 2			YES. 1 . . .2	MALE . . . 1 FEMALE...2	YES . .. . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(59)		YES . . . . .1 NO 2			YES. 1 . . .2	MALE . . . 1 FEMALE...2	YES . .. . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(60)		YES . . . . .1 NO 2			YES. 1 . . .2	MALE . . . 1 FEMALE...2	YES . .. . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2
(61)		YES . . . . .1 NO 2			YES. 1 . . .2	MALE . . . 1 FEMALE...2	YES . .. . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2

(62)		YES . . . . .1 NO 2			YES. .1 . . .2	MALE . . .1 FEMALE...2	YES . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2

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Q7a. No. of staff	Q7b. NAME	Q7c. Is NAME scheduled to be on duty any time today?	Q7d. Serial number of sampled on-duty staff	Q7e. POSITION CODE	Q7f. Does NAME work full-time?	Q7g. SEX	Does NAME provide service(s)? *Please indicate by checking the box of the services that NAME provides.* Q7h. FAMILY PLANNING	Q7i. MATERNAL HEALTH/ OB-GYN	Q7j. CHILD HEALTH	Q7k. HIV/STI SERVICES
(63)		YES . . . . .1 NO 2			YES. .1 O. . .2	MALE . . .1 FEMALE...2	YES . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(64)		YES . . . . .1 NO 2			YES. .1 O. . .2	MALE . . .1 FEMALE...2	YES . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(65)		YES . . . . .1 NO 2			YES. .1 O. . .2	MALE . . .1 FEMALE...2	YES . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(66)		YES . . . . .1 NO 2			YES. .1 O. . .2	MALE . . .1 FEMALE...2	YES . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(67)		YES . . . . .1 NO 2			YES. .1 O. . .2	MALE . . .1 FEMALE...2	YES . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(68)		YES . . . . .1 NO 2			YES. .1 O. . .2	MALE . . .1 FEMALE...2	YES . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(69)		YES . . . . .1 NO 2			YES. .1 O. . .2	MALE . . .1 FEMALE...2	YES . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(70)		YES . . . . .1 NO 2			YES. .1 O. . .2	MALE . . .1 FEMALE...2	YES . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(71)		YES . . . . .1 NO 2			YES. .1 O. . .2	MALE . . .1 FEMALE...2	YES . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(72)		YES . . . . .1 NO 2			YES. .1 O. . .2	MALE . . .1 FEMALE...2	YES . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(73)		YES . . . . .1 NO 2			YES. .1 O. . .2	MALE . . .1 FEMALE...2	YES . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2	YES . . . . .1 NO 2
(74)		YES 1			ES. .1	MALE . . .1	YES . . .1	YES 1	YES 1	YES 1

		NO 2			NO. . . .2	FEMALE...2	NO 2	NO 2	NO 2	NO 2
(75)		YES . . . . . .1 NO 2			YES. . . .1 O. . . .2	MALE . . . 1 FEMALE...2	YES . . .. .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2	YES . . . . . .1 NO 2

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96 Other----------

CHECK THE BOX IF ANOTHER FORM IS USED: ☐ TOTAL NUMBER OF FORMS: ☐ FORM NUMBER: ☐

Now I would like to ask you about some of the services that this facility provides to their clients.

SERVICE	Q8a. Does this facility provide the following Maternal and Child Health SERVICES?	Q8b. How many days per week is SERVICE available?	Q8c. How many clients received this service here in the **past 3 months**? ASK TO SEE MEDICAL RECORD SYSTEM, IF POSSIBLE. OTHERWISE, ASK RESPONDENT TO RECALL.	Q8d.WHAT WAS THE SOURCE OF THIS INFORMATION?
GENERAL Maternal and Child Health Services				
1. HIV testing and counseling **(INCLUDE ANC, MCH, PNC)**	Yes . . . . 1 No . . . . . 2 **(2)**	Days . . . ☐	☐☐☐☐☐ **NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE…..……2
2. TB Screening	Yes . . . . 1 No . . . . . 2 **(3)**	Days . . . ☐	☐☐☐☐☐ **NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE…..……2
3. Antenatal Profile	Yes . . . . 1 No . . . . . 2 **(4)**	Days . . . ☐	☐☐☐☐☐ **NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE…..……2
4. IPPT for Malaria Intermittent preventive treatment for malaria	Yes . . . . 1 No 2			
5. ITN for Malaria prevention during and after pregnancy	Yes . . . . 1 No . . . . . 2 Not Applicable…….7			
6. Nutrition Counseling during pregnancy	Yes . . . . 1 No 2			
7. Iron Supplementation during pregnancy	Yes . . . . 1 No 2			
8. Vitamin A supplementation after pregnancy	Yes . . . . 1 No 2			
9. Tetanus Toxoid- according to schedule	Yes . . . . 1 No 2			
10. Family Planning counseling and services	Yes . . . . 1 No . . . . . 2 **(11)**	Days . . . ☐	☐☐☐☐☐ **NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE…..……2
11. Early Disease detection and treatment of sexually transmitted diseases	Yes . . . . 1 No . . . . . 2 **(12)**	Days . . . ☐	☐☐☐☐☐ **NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE…..……2

SERVICE	Q8a. Does this facility provide the following Maternal and Child Health SERVICES?	Q8b. How many days per week is SERVICE available?	Q8c. How many clients received this service here in the **past 3 months**? ASK TO SEE MEDICAL RECORD SYSTEM, IF POSSIBLE. OTHERWISE, ASK RESPONDENT TO RECALL.	Q8d.WHAT WAS THE SOURCE OF THIS INFORMATION?
12. PMTCT	Yes . . . . 1 No . . . . . 2 **(→13)**	Days . . .	**NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE……2
Child Health Services				
13. Child Immunization	Yes . . . . 1 No . . . . . 2 **(→14)**	Days . . .	**NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE……2
14. Child Growth monitoring	Yes . . . . 1 No . . . . . 2 **(→15)**	Days . . .	**NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE……2
15. Oral rehydration therapy services	Yes . . . . 1 No . . . . . 2 **(→16)**	Days . . .	**NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE……2
16. Integrated management of Childhood illnesses(IMCI)	Yes . . . . 1 No 2			
Delivery and Post-Partum Services				
17. Labor and delivery services	Yes . . . . 1 No . . . . . 2 **(→18)**	Days . . .	**NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE……2
18. Blood transfusion during labor/ delivery	Yes . . . . 1 No . . . . . 2 **(→19)**	Days . . .	**NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE……2
19. C-section	Yes . . . . 1 No . . . . . 2 **(→20)**	Days . . .	**NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE……2
20. Care of the new born	Yes . . . . 1 No 2			
21. Post-Partum Care	Yes . . . . 1 No . . . . . 2 **(→22)**	Days . . .	**NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE……2
22. Counseling on initiating breast-feeding (after delivery)	Yes . . . . 1 No 2			

SERVICE	Q8a. Does this facility provide the following Maternal and Child Health SERVICES?	Q8b. How many days per week is SERVICE available?	Q8c. How many clients received this service here in the **past 3 months**? ASK TO SEE MEDICAL RECORD SYSTEM, IF POSSIBLE. OTHERWISE, ASK RESPONDENT TO RECALL.	Q8d.WHAT WAS THE SOURCE OF THIS INFORMATION?
23. Post – Abortion Care Services	Yes . . . . 1 No . . . . . 2 ~~**(24)**~~	Days . . . ☐	☐☐☐☐☐ **NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE…..……2
Other RH Services				
24. Cancer screening, eg Breast, Cervix	Yes . . . . 1 No 2			
25. Youth Friendly Services	Yes . . . . 1 No . . . 2 ~~**(Q9)**~~	Days . . . ☐	☐☐☐☐☐ **NOT AVAILABLE.....99993**	OBSERVED RECORD……1 PROVIDER ESTIMATE…..……2

Q9.	Does this facility refer clients to other health care facilities for any of MNCH, FP, or HIV services?	YES . . . . . 1 NO . . . . . 2 →	**Q11**
Q10.	For which services are these referrals? [**MULTIPLE RESPONSE POSSIBLE**]	FAMILY PLANNING……A IMMUNIZATION……..B ANTENATAL CARE……C DELIVERY CARE……D EMERGENCY DELIVERY CARE (C-SECTION)……E POSTNATAL CARE……..F DISEASE PREVENTION……..G TREATMENT OF ADULT……..H TREATMENT FOR CHILD……I GROWTH MONITORING OF CHILD……..J HEALTH CHECK-UP . . . . . …….. …K VCT……L HIV/AIDS MANAGEMENT……M PMTCT…….. N OTHER_____ …X (SPECIFY)	
Q11.	CHECK Q8A: IF YES TO **ANY** CHILD HEALTH SERVICES (13, 14,15, 16) ↓	IF Q8A IS NO TO **ALL** CHILD HEALTH SERVICES (13, 14,15, 16) →	**Q18**
Q12.	Now I would like to ask you some questions about other health services. What routinely/generally happens when a woman who has come for a ***child health service*** is also interested in receiving FP counseling? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..…01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……..…04 Given referral to another facility……..05 Referral to another department……...06 Given no information or referral……..07 Facility does not offer family planning services…..08 Other_____ 96 (SPECIFY)	**Q18** →
Q13.	What routinely/generally happens when a woman who has come for child health service is also interested in receiving an FP pill? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..……01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……..04 Given referral to another facility……..05 Referral to another department……...06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	

Q14.	What routinely/generally happens when a woman who has come for child health service is also interested in receiving an <u>injectable</u>? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..…01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……..….04 Given referral to another facility……..05 Referral to another department……...06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	
Q15.	What routinely/generally happens when a woman who has come for child health service is also interested in receiving an <u>IUD</u>? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..…01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……..04 Given referral to another facility……..05 Referral to another department……...06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	
Q16.	What routinely/generally happens when a woman who has come for child health service is also interested in receiving an <u>implant</u>? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……..04 Given referral to another facility……..05 Referral to another department……..06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	

Q17.	What routinely/generally happens when a woman who has come for child health service is also interested in receiving sterilization? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……...04 Given referral to another facility……..05 Referral to another department……..06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	
Q18.	CHECK Q8A: IF YES TO **ANY** OF POST PARTUM CARE SERVICES (8, 20, 21, 22)	IF NO TO **ALL** POST-PARTUM CARE (8, 20, 21, 22)	**Q25**
Q19.	What routinely/generally happens when a woman who has come for ***post-partum care*** is also interested in receiving FP counseling? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..…01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day…….……04 Given referral to another facility……..05 Referral to another department……..…06 Given no information or referral……..07 Do not offer family planning services…….08 Other_____ 96 (SPECIFY)	**Q25** →
Q20.	What routinely/generally happens when a woman who has come for post-partum care is also interested in receiving an FP pill? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……...01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……...04 Given referral to another facility……..05 Referral to another department……..…06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	

Q21.	What routinely/generally happens when a woman who has come for post-partum care is also interested in receiving an <u>injectable</u>? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..…01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……...04 Given referral to another facility……..05 Referral to another department……..06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	
Q22.	What routinely/generally happens when a woman who has come for post-partum care is also interested in receiving an <u>IUD</u>? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..…01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……..…04 Given referral to another facility……..05 Referral to another department……...06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	
Q23.	What routinely/generally happens when a woman who has come for post-partum care is also interested in receiving an <u>implant</u>? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..……01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……..…04 Given referral to another facility……..05 Referral to another department……...06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	

Q24.	What routinely/generally happens when a woman who has come for post-partum care is also interested in receiving sterilization? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……...01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……..…04 Given referral to another facility……..05 Referral to another department……...06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	
Q25.	CHECK Q8A: IF YES TO POST-ABORTION CARE (23) ☐	IF NO TO POST-ABORTION CARE Q8A (23) ☐ → **Q28**	
Q26.	In terms of FP counseling, what routinely/generally happens when a woman comes in for ***post-abortion care***? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..……01 Sometimes receive on same day……02 Make appointment to come back a different day….03 Given referral to another facility……..04 Given referral to another department…….05 Given no information or referral……..06 Other_____ 96 (SPECIFY)	
Q27.	What routinely/generally happens when a woman who has come for post-abortion care is also interested in receiving FP method? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..……01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……...04 Given referral to another facility……..05 Given referral to another department……....06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	
Q28.	CHECK Q8A: IF YES TO **ANY** HIV/AIDS TESTING AND COUNSELLING (1); TB SCREENING (2); EARLY DISEASE DETECTION AND TREATMENT FOR STI (11); PMTCT (12) (1, 2, 11, 12) ☐	IF NO TO **ALL** (1, 2, 11, 12) ☐ → **Q35**	

Q29.	What routinely/generally happens when a client who has come for ***HIV/AIDS Testing and Counseling, or TB Screening, or screening and treatment of STIs, or PMTCT*** services is also interested in receiving FP counseling? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..…01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……..04 Given referral to another facility……..…05 Referral to another department……..…06 Given no information or referral……..07 Do not offer family planning services…….08 Other_____ 96 (SPECIFY)	**Q35** →
Q30.	What routinely/generally happens when a woman who has come for ***HIV/AIDS Testing and Counseling, or TB Screening, or screening and treatment of STIs, or PMTCT*** is also interested in receiving an FP pill? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……..04 Given referral to another facility……..05 Referral to another department……..06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	
Q31.	What routinely/generally happens when a woman who has come for ***HIV/AIDS Testing and Counseling, or TB Screening, or screening and treatment of STIs, or PMTCT*** services is also interested in receiving an injectable? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……..04 Given referral to another facility……..05 Referral to another department……..06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	

Q32.	What routinely/generally happens when a woman who has come for ***HIV/AIDS Testing and Counseling, or TB Screening, or screening and treatment of STIs, or PMTCT*** services is also interested in receiving an IUD? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……...01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……...04 Given referral to another facility……..05 Referral to another department……..06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	
Q33.	What routinely/generally happens when a woman who has come for ***HIV/AIDS Testing and Counseling, or TB Screening, or screening and treatment of STIs, or PMTCT*** services is also interested in receiving an implant? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……..….01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……..…04 Given referral to another facility……..05 Referral to another department……..06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	
Q34.	What routinely/generally happens when a woman who has come for ***HIV/AIDS Testing and Counseling, or TB Screening, or screening and treatment of STIs, or PMTCT*** services is also interested in receiving sterilization? Would you say…READ OUT ANSWERS [Assuming the women qualifies] CIRCLE ONE RESPONSE ONLY	Always receive on same day……...01 Sometimes receive on same day……02 Make appointment to come back a different day….03 No appointment made, always told to come back different day……...04 Given referral to another facility……..05 Referral to another department……..…06 Given no information or referral……..07 Other_____ 96 (SPECIFY)	
Q35.	CHECK Q8A (10): FAMILY PLANNING COUNSELING AND SERVICES **ARE OFFERED** YES ☐	CHECK Q8A (10): FAMILY PLANNING COUNSELING AND SERVICES **ARE NOT OFFERED** NO ☐	

		Q35a: Would FP counseling and services be appropriate to include into the existing services offered? Yes . . . . . 1 No . . . . . 2 Don't know 8	**ALL SKIP TO Q70**

ASK IF THE FOLLOWING CONTRACEPTIVES ARE PROVIDED IN THIS FACILITY. FOR EACH ITEM, CIRCLE THE APPROPRIATE CODE.

METHOD	Q36a. Does this facility provide the following FP methods/ services?	Q36b. How many days per week is the method provided?	Q36c. What year was METHOD first offered at this facility? **Don't know = 9998**	Q36d. Does this facility have any requirements for another person's consent before METHOD is provided?	Q36e. How many staff are currently able to provide this FP method?
(01) Combined oral pill	YES.....1 NO.....2 ↓ **(02)**	Days… ☐	☐☐☐☐	YES . . . . . .1 NO 2	
(02) Progestin only pill	YES.....1 NO.....2 ↓ **(03)**	Days… ☐	☐☐☐☐	YES . . . . . .1 NO 2	
(03) Emergency contraceptive	YES.....1 NO.....2 ↓ **(04)**	Days… ☐	☐☐☐☐	YES . . . . . .1 NO 2	
(04) Male condom	YES.....1 NO.....2 ↓ **(05)**	Days… ☐	☐☐☐☐	YES . . . . . .1 NO 2	
(05) Female condom	YES.....1 NO.....2 ↓ **(06)**	Days… ☐	☐☐☐☐	YES . . . . . .1 NO 2	
(06) Injectables	YES.....1 NO.....2 ↓ **(07)**	Days… ☐	☐☐☐☐	YES . . . . . .1 NO 2	
(07) Implants	YES.....1 NO.....2 ↓ **(08)**	Days… ☐ OTHER _____	☐☐☐☐	YES . . . . . .1 NO 2	[__|__|__]
(08) IUD	YES.....1 NO.....2 ↓ **(09)**	Days… ☐ OTHER _____	☐☐☐☐	YES . . . . . .1 NO 2	[__|__|__]
(09) Post-Partum IUD (inserted within 48 hours after delivery)	YES.....1 NO.....2 ↓ **(10)**	Days… ☐ OTHER _____	☐☐☐☐	YES . . . . . .1 NO 2	[__|__|__]
(10) Female sterilization/ tubal ligation	YES.....1 NO.....2 ↓ **(11)**	Days… ☐ OTHER _____	☐☐☐☐	YES . . . . . .1 NO 2	[__|__|__]
(11) Male sterilization/Vasectomy	YES.....1 NO.....2 ↓	Days… ☐ OTHER	☐☐☐☐	YES . . . . . .1 NO 2	[__|__|__]

	(12)	_____			
12 Natural FP (cycle beads, etc)	YES…..1 NO…....2 ↓ **(Q37a)**	Days…		YES . . . . . .1 NO 2	

Now I would like to ask you about your specific stocks of different family planning methods/products. ONLY ASK ABOUT THOSE METHODS THAT ARE PROVIDED (FROM Q36A).

CONTRACEPTIVE	Q37a. Where does your stock of CONTRACEPTIVE come from? CHOOSE ALL.	Q37b. When was the last time that you received a routine supply of CONTRACEPTIVE either that you ordered, or that is part of your routine supply system? READ LIST.	Q37c. Does this facility determine the quantity of each CONTRACEPTIVE that it needs and order that, or is the quantity that you receive determined elsewhere or both? READ LIST.	Q37d. Do you receive a standard fixed quantity of CONTRACEPTIVE or does the quantity you receive vary according to recent need or activity level? READ LIST.	Q37e. **CHECK Q37C. IFQ37C IS "2", SKIP TO Q37G** When you order CONTRACEPTIVE, how much do you order? READ LIST.	Q37f. When do you decide to order CONTRACEPTIVE? READ LIST.	Q37g. On average, how long does it take to receive your supplies after you have placed an order? READ LIST.	Q37h. Is METHOD usually delivered or must you go get them? READ LIST
(01) Combination oral contraceptives (estrogen and progestin)	KEMSA ……A District Store……B Other Facility……C Intl NGO …… .D Local NGO…. ….E Pharmacy wholesaler/ dealer/ distributor……F Other_____X (Specify) Don't know…… …Z	< 4 wks ago…..... 1 Between 4-12 wks…… …… 2 > 12 wks ago……3 No routine supply system…… ……4 Don't know… ……8	Determines own need….1 →**(Q37e)** Determined Elsewhere……..2 Both…….. ……...3 Don't know ……..8 →**(Q37g)**	Quantity based on activity level…..1 Standard fixed supply…. ……..2 Both…… ……3 Don't know… …...8	Order to maintain stock…… ……..1 Order same amount… ……2 Order based on consumption…..3 Other_____. 6 (Specify) Don't know…... ……8	Stock fall below predetermined level…… ……1 Fixed time – Every [__|__|__] days…….2 Order when stocked out…… ……..3 Other…… ……6 Specify_____ Don't know…… …….8	One week or less…....1 Between 2-4 weeks….2 Between 5-8 weeks….3 More than 8 weeks…..4 Other _____ ____6 (Specify) Don't know . ……8	Delivered by KEMSA…..1 Delivered by district stores/ sdp…. 2 Delivered by other supplier/facilities/NGOs…… ……3 This facility picks them up… …4

CONTRACEPTIVE	Q37a. Where does your stock of CONTRACEPTIVE come from? CHOOSE ALL.	Q37b. When was the last time that you received a routine supply of CONTRACEPTIVE either that you ordered, or that is part of your routine supply system? READ LIST.	Q37c. Does this facility determine the quantity of each CONTRACEPTIVE that it needs and order that, or is the quantity that you receive determined elsewhere or both? READ LIST.	Q37d. Do you receive a standard fixed quantity of CONTRACEPTIVE or does the quantity you receive vary according to recent need or activity level? READ LIST.	Q37e. **CHECK Q37C. IFQ37C IS "2", SKIP TO Q37G** When you order CONTRACEPTIVE, how much do you order? READ LIST.	Q37f. When do you decide to order CONTRACEPTIVE? READ LIST.	Q37g. On average, how long does it take to receive your supplies after you have placed an order? READ LIST.	Q37h. Is METHOD usually delivered or must you go get them? READ LIST
(02) Progestin-only oral contraceptives	KEMSA ……A District Store……B Other Facility……C Intl NGO ……D Local NGO……E Pharmacy wholesaler/ dealer/ distributor……F Other_____X (Specify) Don't know……Z	< 4 wks ago……1 Between 4-12 wks……2 > 12 wks ago……3 No routine supply system……4 Don't know……8	Determines own need….1 →**(Q37e)** Determined Elsewhere……..2 Both……..3 Don't know ……..8 →**(Q37g)**	Quantity based on activity level…..1 Standard fixed supply……2 Both……3 Don't know……8	Order to maintain stock……..1 Order same amount……2 Order based on consumption…..3 Other_____. 6 (Specify) Don't know……8	Stock fall below predetermined level……1 Fixed time – Every [__|__|__] days……2 Order when stocked out……3 Other……6 Specify_____ Don't know……8	One week or less……1 Between 2-4 weeks….2 Between 5-8 weeks….3 More than 8 weeks…..4 Other _____6 (Specify) Don't know ……8	Delivered by KEMSA…..1 Delivered by district stores/ sdp….2 Delivered by other supplier/facilities/NGOs……3 This facility picks them up……4

CONTRACEPTIVE	Q37a. Where does your stock of CONTRACEPTIVE come from? CHOOSE ALL.	Q37b. When was the last time that you received a routine supply of CONTRACEPTIVE either that you ordered, or that is part of your routine supply system? READ LIST.	Q37c. Does this facility determine the quantity of each CONTRACEPTIVE that it needs and order that, or is the quantity that you receive determined elsewhere or both? READ LIST.	Q37d. Do you receive a standard fixed quantity of CONTRACEPTIVE or does the quantity you receive vary according to recent need or activity level? READ LIST.	Q37e. **CHECK Q37C. IFQ37C IS "2", SKIP TO Q37G** When you order CONTRACEPTIVE, how much do you order? READ LIST.	Q37f. When do you decide to order CONTRACEPTIVE? READ LIST.	Q37g. On average, how long does it take to receive your supplies after you have placed an order? READ LIST.	Q37h. Is METHOD usually delivered or must you go get them? READ LIST
(03) Emergency contraceptives	KEMSA ……A District Store……B Other Facility……C Intl NGO ……D Local NGO……E Pharmacy wholesaler/ dealer/ distributor……F Other_____X (Specify) Don't know……Z	< 4 wks ago……1 Between 4-12 wks……2 > 12 wks ago……3 No routine supply system……4 Don't know……8	Determines own need….1 →**(Q37e)** Determined Elsewhere……..2 Both……..3 Don't know ……..8 →**(Q37g)**	Quantity based on activity level…..1 Standard fixed supply……2 Both……3 Don't know……8	Order to maintain stock……..1 Order same amount……2 Order based on consumption…..3 Other_____.6 (Specify) Don't know……..8	Stock fall below predetermined level……1 Fixed time – Every [__|__|__] days……2 Order when stocked out……3 Other……6 Specify_____ Don't know……8	One week or less…….1 Between 2-4 weeks….2 Between 5-8 weeks….3 More than 8 weeks…..4 Other _____6 (Specify) Don't know . ……8	Delivered by KEMSA…..1 Delivered by district stores/ sdp….2 Delivered by other supplier/facilities/NGOs……3 This facility picks them up…4

CONTRACEPTIVE	Q37a. Where does your stock of CONTRACEPTIVE come from? CHOOSE ALL.	Q37b. When was the last time that you received a routine supply of CONTRACEPTIVE either that you ordered, or that is part of your routine supply system? READ LIST.	Q37c. Does this facility determine the quantity of each CONTRACEPTIVE that it needs and order that, or is the quantity that you receive determined elsewhere or both? READ LIST.	Q37d. Do you receive a standard fixed quantity of CONTRACEPTIVE or does the quantity you receive vary according to recent need or activity level? READ LIST.	Q37e. **CHECK Q37C. IFQ37C IS "2", SKIP TO Q37G** When you order CONTRACEPTIVE, how much do you order? READ LIST.	Q37f. When do you decide to order CONTRACEPTIVE? READ LIST.	Q37g. On average, how long does it take to receive your supplies after you have placed an order? READ LIST.	Q37h. Is METHOD usually delivered or must you go get them? READ LIST
(04) Male condoms	KEMSA ……A District Store……B Other Facility……C Intl NGO ……D Local NGO……E Pharmacy wholesaler/ dealer/ distributor……F NASCOP ……G Other_____X (Specify) Don't know……Z	< 4 wks ago……1 Between 4-12 wks……2 > 12 wks ago……3 No routine supply system……4 Don't know……8	Determines own need….1 →**(Q37e)** Determined Elsewhere……..2 Both……..3 Don't know ……..8 →**(Q37g)**	Quantity based on activity level…..1 Standard fixed supply……2 Both……3 Don't know……8	Order to maintain stock……..1 Order same amount……2 Order based on consumption…..3 Other_____. 6 (Specify) Don't know……..8	Stock fall below predetermined level……1 Fixed time – Every [__|__|__] days……2 Order when stocked out……..3 Other……6 Specify_____ Don't know……8	One week or less…….1 Between 2-4 weeks….2 Between 5-8 weeks….3 More than 8 weeks…..4 Other _____6 (Specify) Don't know . ……8	Delivered by KEMSA…..1 Delivered by district stores/ sdp….2 Delivered by other supplier/facilities/NGOs……3 This facility picks them up…4

CONTRACEPTIVE	Q37a. Where does your stock of CONTRACEPTIVE come from? CHOOSE ALL.	Q37b. When was the last time that you received a routine supply of CONTRACEPTIVE either that you ordered, or that is part of your routine supply system? READ LIST.	Q37c. Does this facility determine the quantity of each CONTRACEPTIVE that it needs and order that, or is the quantity that you receive determined elsewhere or both? READ LIST.	Q37d. Do you receive a standard fixed quantity of CONTRACEPTIVE or does the quantity you receive vary according to recent need or activity level? READ LIST.	Q37e. **CHECK Q37C. IFQ37C IS "2", SKIP TO Q37G** When you order CONTRACEPTIVE, how much do you order? READ LIST.	Q37f. When do you decide to order CONTRACEPTIVE? READ LIST.	Q37g. On average, how long does it take to receive your supplies after you have placed an order? READ LIST.	Q37h. Is METHOD usually delivered or must you go get them? READ LIST
(05) Female condoms	KEMSA ……A District Store……B Other Facility……C Intl NGO ……D Local NGO……E Pharmacy wholesaler/ dealer/ distributor……F Other_____X (Specify) Don't know……Z	< 4 wks ago……1 Between 4-12 wks……2 > 12 wks ago……3 No routine supply system……4 Don't know……8	Determines own need….1 →**(Q37e)** Determined Elsewhere……..2 Both……..3 Don't know ……..8 →**(Q37g)**	Quantity based on activity level…..1 Standard fixed supply……2 Both……3 Don't know……8	Order to maintain stock……1 Order same amount……2 Order based on consumption…..3 Other_____. 6 (Specify) Don't know……8	Stock fall below predetermined level……1 Fixed time – Every [__|__|__] days……2 Order when stocked out……3 Other……6 Specify_____ Don't know……8	One week or less…….1 Between 2-4 weeks….2 Between 5-8 weeks….3 More than 8 weeks…..4 Other _____6 (Specify) Don't know . ……8	Delivered by KEMSA…..1 Delivered by district stores/ sdp….2 Delivered by other supplier/facilities/NGOs……3 This facility picks them up……4

CONTRACEPTIVE	Q37a. Where does your stock of CONTRACEPTIVE come from? CHOOSE ALL.	Q37b. When was the last time that you received a routine supply of CONTRACEPTIVE either that you ordered, or that is part of your routine supply system? READ LIST.	Q37c. Does this facility determine the quantity of each CONTRACEPTIVE that it needs and order that, or is the quantity that you receive determined elsewhere or both? READ LIST.	Q37d. Do you receive a standard fixed quantity of CONTRACEPTIVE or does the quantity you receive vary according to recent need or activity level? READ LIST.	Q37e. **CHECK Q37C. IFQ37C IS "2", SKIP TO Q37G** When you order CONTRACEPTIVE, how much do you order? READ LIST.	Q37f. When do you decide to order CONTRACEPTIVE? READ LIST.	Q37g. On average, how long does it take to receive your supplies after you have placed an order? READ LIST.	Q37h. Is METHOD usually delivered or must you go get them? READ LIST
(06) Injectables	KEMSA ……A District Store……B Other Facility……C Intl NGO …… .D Local NGO…. ….E Pharmacy wholesaler/ dealer/ distributor……F Other___ _____X (Specify) Don't know…… …Z	< 4 wks ago…..... 1 Between 4-12 wks…… …… 2 > 12 wks ago……3 No routine supply system…….....4 Don't know… ……8	Determines own need….1 →**(Q37e)** Determined Elsewhere……..2 Both…….. ……....3 Don't know ……..8 →**(Q37g)**	Quantity based on activity level…..1 Standard fixed supply… ……..2 Both…… ……3 Don't know… …...8	Order to maintain stock…… ……..1 Order same amount… ……2 Order based on consumption…..3 Other___ _____. 6 (Specify) Don't know…... ……8	Stock fall below predetermined level…… ……1 Fixed time – Every [__|__|__] days…….2 Order when stocked out…… ……..3 Other…… ……6 Specify___ _____ Don't know…… …….8	One week or less…....1 Between 2-4 weeks….2 Between 5-8 weeks….3 More than 8 weeks…..4 Other _____ ____6 (Specify) Don't know . ……8	Delivered by KEMSA…..1 Delivered by district stores/ sdp…. 2 Delivered by other supplier/facilities/NGOs…… ……3 This facility picks them up… …4

CONTRACEPTIVE	Q37a. Where does your stock of CONTRACEPTIVE come from? CHOOSE ALL.	Q37b. When was the last time that you received a routine supply of CONTRACEPTIVE either that you ordered, or that is part of your routine supply system? READ LIST.	Q37c. Does this facility determine the quantity of each CONTRACEPTIVE that it needs and order that, or is the quantity that you receive determined elsewhere or both? READ LIST.	Q37d. Do you receive a standard fixed quantity of CONTRACEPTIVE or does the quantity you receive vary according to recent need or activity level? READ LIST.	Q37e. **CHECK Q37C. IFQ37C IS "2", SKIP TO Q37G** When you order CONTRACEPTIVE, how much do you order? READ LIST.	Q37f. When do you decide to order CONTRACEPTIVE? READ LIST.	Q37g. On average, how long does it take to receive your supplies after you have placed an order? READ LIST.	Q37h. Is METHOD usually delivered or must you go get them? READ LIST
(07) Implant	KEMSA ……A District Store……B Other Facility……C Intl NGO …… .D Local NGO…. ….E Pharmacy wholesaler/ dealer/ distributor……F Other___ _____X (Specify) Don't know…… …Z	< 4 wks ago…..... 1 Between 4-12 wks…… ……..... 2 > 12 wks ago……3 No routine supply system… ……4 Don't know… ……8	Determines own need….1 →**(Q37e)** Determined Elsewhere……..2 Both…….. ……....3 Don't know ……..8 →**(Q37g)**	Quantity based on activity level…..1 Standard fixed supply… ……..2 Both…… ……3 Don't know… …...8	Order to maintain stock…… ……..1 Order same amount… ……2 Order based on consumption…..3 Other___ _____. 6 (Specify) Don't know…... ……8	Stock fall below predetermined level…… ……1 Fixed time – Every [__|__|__] days…….2 Order when stocked out…… ……..3 Other…… ……6 Specify___ _____ Don't know…… …….8	One week or less…....1 Between 2-4 weeks….2 Between 5-8 weeks….3 More than 8 weeks…..4 Other _____ ____6 (Specify) Don't know . ……8	Delivered by KEMSA…..1 Delivered by district stores/ sdp…. 2 Delivered by other supplier/facilities/NGOs…… ……3 This facility picks them up… …4

CONTRACEPTIVE	Q37a. Where does your stock of CONTRACEPTIVE come from? CHOOSE ALL.	Q37b. When was the last time that you received a routine supply of CONTRACEPTIVE either that you ordered, or that is part of your routine supply system? READ LIST.	Q37c. Does this facility determine the quantity of each CONTRACEPTIVE that it needs and order that, or is the quantity that you receive determined elsewhere or both? READ LIST.	Q37d. Do you receive a standard fixed quantity of CONTRACEPTIVE or does the quantity you receive vary according to recent need or activity level? READ LIST.	Q37e. **CHECK Q37C. IFQ37C IS "2", SKIP TO Q37G** When you order CONTRACEPTIVE, how much do you order? READ LIST.	Q37f. When do you decide to order CONTRACEPTIVE? READ LIST.	Q37g. On average, how long does it take to receive your supplies after you have placed an order? READ LIST.	Q37h. Is METHOD usually delivered or must you go get them? READ LIST
(08) IUD	KEMSA ……A District Store……B Other Facility……C Intl NGO …… .D Local NGO…. ….E Pharmacy wholesaler/ dealer/ distributor……F Other___ _____X (Specify) Don't know…… …Z	< 4 wks ago…..... 1 Between 4-12 wks…… ……2 > 12 wks ago……3 No routine supply system… ……4 Don't know… ……8	Determines own need….1 →**(Q37e)** Determined Elsewhere……..2 Both…….. ……....3 Don't know ……..8 →**(Q37g)**	Quantity based on activity level…..1 Standard fixed supply… ……..2 Both…… ……3 Don't know… …...8	Order to maintain stock…… ……..1 Order same amount… ……2 Order based on consumption…..3 Other___ _____. 6 (Specify) Don't know…... ……8	Stock fall below predetermined level…… ……1 Fixed time – Every [__|__|__] days…….2 Order when stocked out…… ……..3 Other…… ……6 Specify___ _____ Don't know…… …….8	One week or less…....1 Between 2-4 weeks….2 Between 5-8 weeks….3 More than 8 weeks…..4 Other _____ ____6 (Specify) Don't know . ……8	Delivered by KEMSA…..1 Delivered by district stores/ sdp….2 Delivered by other supplier/facilities/NGOs…… ……3 This facility picks them up… …4

Now I would like to ask you some more questions specifically about stock-outs of family planning methods.
ONLY ASK ABOUT THOSE METHODS THAT ARE AVAILABLE FROM Q36a.

METHOD	Q38a. Is ____ METHOD currently available?	Q38b. Has this facility had a stock out of METHOD that lasted at least 24 hours in the last **one year**?	Q38c. How many times has this facility had a stock out of METHOD in the past one year? (CHECK if **"Yes"** to Q38b)	Q38d. How many **total** days of stock-out of METHOD did this facility experience in the past one year? (CHECK if **"Yes"** to Q38b)	Q38e. SOURCE OF INFORMATION FOR STOCKOUTS IN PAST ONE YEAR:	Q38f. Has this facility had a stock-out of METHOD that lasted at least 24 hours in the last 30 days (one month)?	Q38g. How many times has this facility had a stock-out of METHOD in the past 30 days? (CHECK if **"Yes"** to Q38f)	Q38h. How many **total** days of stock-out of METHOD did this facility experience in the last 30 days? (CHECK if **"Yes"** to Q38f)	Q38i. SOURCE OF INFORMATION ON STOCKOUTS IN PAST 30 DAYS:	Q38j. How many emergency orders for METHOD have you placed in the last 3 months?
(01) Combined oral pill	YES .....1 NO .....2 **(02)**	YES .....1 NO 2	Number … DON'T KNOW..98	Days… CONSTANT PROBLEM…995 DK……998	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	YES .....1 NO .....2 **(Q38j)**	Number … DON'T KNOW 98	Days … DON'T KNOW ..98	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	Number… DON'T KNOW 98

(02) Progestin only pill	YES …..1 NO …….2 YES …..1 NO ……2	YES …..1 NO …….2 **(03)**	Number … DON'T KNOW..98	Days… CONSTANT PROBLEM…995 DK…….998	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	YES …..1 NO …….2 **(Q38j)**	Number … DON'T KNOW …..98	Days … DON'T KNOW ..98	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	Number… DON'T KNOW …..98
(03) Emer-gency contra-ceptive	YES …..1 NO …….2 YES …..1 NO ……2	YES …..1 NO …….2 **(04)**	Number … DON'T KNOW..98	Days… CONSTANT PROBLEM…995 DK…….998	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	YES …..1 NO …….2 **(Q38j)**	Number … DON'T KNOW …..98	Days … DON'T KNOW ..98	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	Number… DON'T KNOW …..98

METHOD	Q38a. Is ____ METHOD currently available?	Q38b. Has this facility had a stockout of METHOD that lasted at least 24 hours in the last **one year**?	Q38c. If Yes, how many times has this facility had a stockout of METHOD in the past one year? (CHECK if **"Yes"** to Q38b)	Q38d. If Yes, how many **total** days of stockout of METHOD did this facility experience in the past one year? (CHECK if **"Yes"** to Q38b)	Q38e. SOURCE OF INFORMATION FOR STOCKOUTS IN PAST ONE YEAR:	Q38f. Has this facility had a stockout of METHOD that lasted at least 24 hours in the last 30 days (one month)?	Q38g. If Yes, how many times has this facility had a stockout of METHOD in the past 30 days? (CHECK if **"Yes"** to Q38f)	Q38h. If Yes, how many **total** days of stockout of METHOD did this facility experience in the last 30 days? (CHECK if **"Yes"** to Q38f)	Q38i. SOURCE OF INFORMATION ON STOCKOUTS IN PAST 30 DAYS:	Q38j. How many emergency orders for METHOD have you placed in the last 3 months?
(04) Male condom	YES …..1 NO ……2	YES …..1 NO ……2	YES …..1 NO ……2 **(05)**	Number … DON'T KNOW..98	Days… CONSTANT PROBLEM…995 DK……998	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	YES …..1 NO ……2 **(Q38j)**	Number … DON'T KNOW …..98	Days … DON'T KNOW ..98	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	Number… DON'T KNOW …..98
(05) Female condom	YES …..1 NO ……2	YES …..1 NO ……2	YES …..1 NO ……2 **(06)**	Number … DON'T KNOW..98	Days… CONSTANT PROBLEM…995 DK……998	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	YES …..1 NO ……2 **(Q38j)**	Number … DON'T KNOW …..98	Days … DON'T KNOW ..98	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	Number… DON'T KNOW …..98
(06) Injectable	YES …..1 NO ……2	YES …..1 NO ……2	YES …..1 NO ……2 **(07)**	Number … DON'T KNOW..98	Days… CONSTANT PROBLEM…995 DK……998	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	YES …..1 NO ……2 **(Q38j)**	Number … DON'T KNOW …..98	Days … DON'T KNOW ..98	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	Number… DON'T KNOW …..98

(07) Implant	YES …..1 NO …….2 **(08)**	Number … DON'T KNOW..98	Days… CONSTANT PROBLEM…995 DK……998	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	YES …..1 NO …….2 **(Q38j)**	Number … DON'T KNOW …..98	Days … DON'T KNOW ..98	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	Number… DON'T KNOW …..98
(08) IUD	YES …..1 NO …….2 **(Q39a)**	Number … DON'T KNOW..98	Days… CONSTANT PROBLEM…995 DK……998	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	YES …..1 NO …….2 **(Q38j)**	Number … DON'T KNOW …..98	Days … DON'T KNOW ..98	OBSERVED RECORD ……1 PROVIDER ESTIMATE……2	Number… DON'T KNOW …..98

ONLY ASK ABOUT THOSE METHODS THAT ARE OFFERED AT THE FACILITY FROM Q36A.		
METHOD	Q39a. How many [NAMED METHOD] do you usually provide to a **new acceptor** on her first visit?	Q39b. How many [NAMED METHOD] do you usually provide to a woman coming for **resupply/continuing to use the same method**?
(01) Combined oral contraceptives (number of cycles)		
(02) Progestin-only oral contraceptives (number of cycles)		
(03) Male condoms (number of pieces)		
(04) Female condoms (number of pieces)		

Now I'm going to ask you some questions related to how much **a new client** pays for contraceptive services and methods.

ONLY ASK ABOUT THOSE METHODS THAT ARE OFFERED BY THE FACILITY FROM Q36a.

METHOD	Q40a. How much is the consultation/Registration fee (in KES) for METHOD/PROCEDURE? (Applies to how much a new client pays for contraceptive services and methods)	Q40b. Do fees for METHOD vary depending on the product/brand available?	Q40c. How much is the actual cost of METHOD/PROCEDURE? RECORD THE RANGE (in KES) IF PRICE DIFFERS BY BRAND **FROM LOWEST TO HIGHEST PRICE.** RECORD THE PRICE IN THE FIRST FIELD IF THERE IS ONLY ONE PRODUCT/BRAND OR IF THE PRICE DOES NOT DIFFER BY PRODUCT/BRAND	CHECK – IF OPTION Q40A AND Q40C is "FREE", GO TO NEXT METHOD Q40d. What percent of clients pay the charge for METHOD/ PROCEDURE?
(01) Combined oral pill	CONSULTATION/REGISTRATION 1[___|___|___|___] FREE……9995 DON'T KNOW…..…9998 OR PACKAGE DEAL…..2 [___|___|___|___] **Q40d** (consultation + method+procedure+any other related cost)	Yes . . . ……1 No/only one brand or product available…...2 Don't know ……8	[___|___|___|___] TO [___|___|___|___]per cycle PRESCRIPTION/REFERRAL ONLY……..9994 FREE……..,……9995 DON'T KNOW……..……..…..…9998	[___|___|___]
(02) Progestin only pill	CONSULTATION/REGISTRATION 1[___|___|___|___] FREE……9995 DON'T KNOW…..…9998 OR PACKAGE DEAL…..2 [___|___|___|___] **Q40d** (consultation + method+procedure+any other related cost)	Yes . . . ……1 No/only one brand or product available…...2 Don't know ……8	[___|___|___|___] TO [___|___|___|___]per cycle PRESCRIPTION/REFERRAL ONLY……..9994 FREE……..,……9995 DON'T KNOW……..…….. …9998	[___|___|___]
(03) Emergency contraceptive	CONSULTATION/REGISTRATION 1[___|___|___|___] FREE……9995 DON'T KNOW…..…9998 OR PACKAGE DEAL…..2 [___|___|___|___] **Q40d** (consultation + method+procedure+any other related cost)	Yes . . . ……1 No/only one brand or product available…...2 Don't know ……8	[___|___|___|___] TO [___|___|___|___]per package/cycle PRESCRIPTION/REFERRAL ONLY……..9994 FREE……..,……9995 DON'T KNOW……..……..…..…9998	[___|___|___]

Now I'm going to ask you some questions related to how much **a new client** pays for contraceptive services and methods.

ONLY ASK ABOUT THOSE METHODS THAT ARE OFFERED BY THE FACILITY FROM Q36a.

METHOD	Q40a. How much is the consultation/Registration fee (in KES) for METHOD/PROCEDURE? (Applies to how much a new client pays for contraceptive services and methods)	Q40b. Do fees for METHOD vary depending on the product/brand available?	Q40c. How much is the actual cost of METHOD/PROCEDURE? RECORD THE RANGE (in KES) IF PRICE DIFFERS BY BRAND **FROM LOWEST TO HIGHEST PRICE.** RECORD THE PRICE IN THE FIRST FIELD IF THERE IS ONLY ONE PRODUCT/BRAND OR IF THE PRICE DOES NOT DIFFER BY PRODUCT/BRAND	CHECK – IF OPTION Q40A AND Q40C is "FREE", GO TO NEXT METHOD Q40d. What percent of clients pay the charge for METHOD/ PROCEDURE?
(04) Male condom	CONSULTATION/REGISTRATION 1[___|___|___|___] FREE……9995 DON'T KNOW…..…9998 OR PACKAGE DEAL…..2 [___|___|___|___] **Q40d** (consultation + method+procedure+any other related cost)	Yes . . . …… 1 No/only one brand or product available…... 2 Don't know ……8	[___|___|___|___] TO [___|___|___|___]per piece PRESCRIPTION/REFERRAL ONLY……..9994 FREE……..,… ……9995 DON'T KNOW……..……..…….. …9998	[___|___|___]
(05) Female condom	CONSULTATION/REGISTRATION 1[___|___|___|___] FREE……9995 DON'T KNOW…..…9998 OR PACKAGE DEAL…..2 [___|___|___|___] **Q40d** (consultation + method+procedure+any other related cost)	Yes . . . …… 1 No/only one brand or product available…... 2 Don't know ……8	[___|___|___|___] TO [___|___|___|___]per piece PRESCRIPTION/REFERRAL ONLY……..9994 FREE……..,… ……9995 DON'T KNOW……..……..…….. …9998	[___|___|___]
(06) Injectables	CONSULTATION/REGISTRATION 1[___|___|___|___] FREE……9995 DON'T KNOW…..…9998 OR PACKAGE DEAL…..2 [___|___|___|___] **Q40d** (consultation + method+procedure+any other related cost)	Yes . . . …… 1 No/only one brand or product available…... 2 Don't know ……8	[___|___|___|___] TO [___|___|___|___]per injectable PRESCRIPTION/REFERRAL ONLY……..9994 FREE……..,… ……9995 DON'T KNOW……..……..…….. …9998	[___|___|___]

Now I'm going to ask you some questions related to how much **a new client** pays for contraceptive services and methods. **ONLY ASK ABOUT THOSE METHODS THAT ARE OFFERED BY THE FACILITY FROM Q36a.**				
METHOD	Q40a. How much is the consultation/Registration fee (in KES) for METHOD/PROCEDURE? (Applies to how much a new client pays for contraceptive services and methods)	Q40b. Do fees for METHOD vary depending on the product/brand available?	Q40c. How much is the actual cost of METHOD/PROCEDURE? RECORD THE RANGE (in KES) IF PRICE DIFFERS BY BRAND **FROM LOWEST TO HIGHEST PRICE.** RECORD THE PRICE IN THE FIRST FIELD IF THERE IS ONLY ONE PRODUCT/BRAND OR IF THE PRICE DOES NOT DIFFER BY PRODUCT/BRAND	CHECK – IF OPTION Q40A AND Q40C is "FREE", GO TO NEXT METHOD Q40d. What percent of clients pay the charge for METHOD/ PROCEDURE?
(07) Implants	CONSULTATION/REGISTRATION 1[___|___|___|___] FREE……9995 DON'T KNOW…..…9998 OR PACKAGE DEAL…..2 [___|___|___|___] **Q40d** (consultation + method+procedure+any other related cost)	Yes . . . ……1 No/only one brand or product available…...2 Don't know ……8	[___|___|___|___] TO [___|___|___|___]per implant PRESCRIPTION/REFERRAL ONLY…...99994 FREE……..,…….…99995 DON'T KNOW……..……9 9998	[___|___|___]
(08) IUD	CONSULTATION/REGISTRATION 1[___|___|___|___] FREE……9995 DON'T KNOW…..…9998 OR PACKAGE DEAL…..2 [___|___|___|___] **Q40d** (consultation + method+procedure+any other related cost)	Yes . . . ……1 No/only one brand or product available…...2 Don't know ……8	[___|___|___|___] TO [___|___|___|___]per IUD PRESCRIPTION/REFERRAL ONLY…..99994 FREE……..,…….……99995 DON'T KNOW……..……..……..9 9998	[___|___|___]
(09) Female sterilization/ tubal ligation	CONSULTATION/REGISTRATION 1[___|___|___|___] FREE……9995 DON'T KNOW…..…9998 OR PACKAGE DEAL…..2 [___|___|___|___] **Q40d** (consultation + procedure+any other related cost)	→	[___|___|___|___] TO [___|___|___|___] PER OPERATION REFERRAL ONLY……....99994 FREE……..,…… …….……99995 DON'T KNOW……..……..…9 9998	[___|___|___]

Now I'm going to ask you some questions related to how much **a new client** pays for contraceptive services and methods. **ONLY ASK ABOUT THOSE METHODS THAT ARE OFFERED BY THE FACILITY FROM Q36a.**				
METHOD	Q40a. How much is the consultation/Registration fee (in KES) for METHOD/PROCEDURE? (Applies to how much a new client pays for contraceptive services and methods)	Q40b. Do fees for METHOD vary depending on the product/brand available?	Q40c. How much is the actual cost of METHOD/PROCEDURE? RECORD THE RANGE (in KES) IF PRICE DIFFERS BY BRAND **FROM LOWEST TO HIGHEST PRICE.** RECORD THE PRICE IN THE FIRST FIELD IF THERE IS ONLY ONE PRODUCT/BRAND OR IF THE PRICE DOES NOT DIFFER BY PRODUCT/BRAND	CHECK – IF OPTION Q40A AND Q40C is "FREE", GO TO NEXT METHOD Q40d. What percent of clients pay the charge for METHOD/ PROCEDURE?
(10) Male sterilization	CONSULTATION/REGISTRATION 1[___|___|___|___] FREE……9995 DON'T KNOW…..…9998 OR PACKAGE DEAL…..2 [___|___|___|___] **Q40d** (consultation + procedure+any other related cost)	→	[___|___|___|___] TO [___|___|___|___] PER OPERATION REFERRAL ONLY……..…..99994 FREE……,…….……99995 DON'T KNOW……...……..…9 9998	[___|___|___]

SERVICE STATISTICS Now I want to ask about service statistics for the following contraceptive methods. For each method I ask about, please tell me the number of new acceptors/users and the number of resupply/continuing users for both the last month and the last 12 months.			
Q41a.How many clients received family planning services in the ***last 12 completed months?*** [___|___|___|___|___|___] NOT AVAILABLE …999993	Q41b. Total new family planning acceptors/users in the ***last 12 completed months?*** [___|___|___|___|___|___] NOT AVAILABLE ……999993 NOTE: New acceptors/users = new to clinic and those who switch methods on day of service.	Q41c. Total FP visits in the ***last 12 completed months?*** [___|___|___|___|___|___] NOT AVAILABLE …999993	Q41d. INDICATE WHERE STATISTICS COME FROM: OBSERVED ……..…1 ESTIMATED…..……2 NOT AVAILABLE……3 OTHER:_____6 (SPECIFY)
Q42.	INDICATE **BEGINNING** MONTH AND YEAR FOR Q41a-Q41c ABOVE . . . ☐☐ . . . ☐☐☐☐ . . . . . . MONTH YEAR		
Q43.	INDICATE **ENDING** MONTH AND YEAR FOR Q41a-Q41c ABOVE. . . ☐☐ . . . ☐☐☐☐ . . . . . . MONTH YEAR		

METHOD **ONLY ASK ABOUT THOSE METHODS THAT ARE OFFERED IN Q36a.**	Q44a. Number of <u>new acceptors/users</u> **last month**	Q44b. Number of <u>resupply/continuing clients</u> **last month**	Q44c. INDICATE WHERE STATISTICS COME FROM FOR LAST MONTH:	Q44d. Number of <u>new acceptors/users</u> **last 12 months**	Q44e. Number of <u>resupply/continuing clients</u> **last 12 months**	Q44f. INDICATE WHERE STATISTICS COME FROM FOR LAST 12 MONTHS:
(01) Combined oral pill	[___|___|___|___] NOT AVAILABLE ……..9993	[___|___|___|___] NOT AVAILABLE ……..9993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)	[___|___|___|___] NOT AVAILABLE ……..99993	[___|___|___|___|___] NOT AVAILABLE ……..99993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)
(02) Progestin only pill	[___|___|___|___] NOT AVAILABLE ……..9993	[___|___|___|___] NOT AVAILABLE ……..9993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)	[___|___|___|___] NOT AVAILABLE ……..99993	[___|___|___|___|___] NOT AVAILABLE ……..99993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)
(03) Emergency contraceptive	[___|___|___|___] NOT AVAILABLE ……..9993	[___|___|___|___] NOT AVAILABLE ……..9993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)	[___|___|___|___] NOT AVAILABLE ……..99993	[___|___|___|___|___] NOT AVAILABLE ……..99993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)

METHOD **ONLY ASK ABOUT THOSE METHODS THAT ARE OFFERED IN Q36a.**	Q44a. Number of new acceptors/users **last month**	Q44b. Number of resupply/continuing clients **last month**	Q44c. INDICATE WHERE STATISTICS COME FROM FOR LAST MONTH:	Q44d. Number of new acceptors/users **last 12 months**	Q44e. Number of resupply/continuing clients **last 12 months**	Q44f. INDICATE WHERE STATISTICS COME FROM FOR LAST 12 MONTHS:
(04) Male condom	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	⌊___|___|___|___|__⌋ NOT AVAILABLE ……..99993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)
(05) Female condom	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	⌊___|___|___|___|__⌋ NOT AVAILABLE ……..99993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)
(06) Injectables	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	⌊___|___|___|___|__⌋ NOT AVAILABLE ……..99993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)
(07) Implants	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	⌊___|___|___|___|__⌋ NOT AVAILABLE ……..99993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)
(08) IUD	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)	⌊___|___|___|___⌋ NOT AVAILABLE ……..9993	⌊___|___|___|___|__⌋ NOT AVAILABLE ……..99993	OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 (SPECIFY)

METHOD **ONLY ASK ABOUT THOSE METHODS THAT ARE OFFERED IN Q36a.**	Q44a. Number of new acceptors/users **last month**	Q44b. Number of resupply/continuing clients **last month**	Q44c. INDICATE WHERE STATISTICS COME FROM FOR LAST MONTH:	Q44d. Number of new acceptors/users **last 12 months**	Q44e. Number of resupply/continuing clients **last 12 months**	Q44f. INDICATE WHERE STATISTICS COME FROM FOR LAST 12 MONTHS:
(09) Female sterilization	⌊___|___|___|___| NOT AVAILABLE ……..9993		OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 _____ (SPECIFY)	⌊___|___|___|___| NOT AVAILABLE ……..9993		OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 _____ (SPECIFY)
(10) Male sterilization	⌊___|___|___|___| NOT AVAILABLE ……..9993		OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 _____ (SPECIFY)	⌊___|___|___|___| NOT AVAILABLE ……..9993		OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 _____ (SPECIFY)
(11) Natural methods	⌊___|___|___|___| NOT AVAILABLE ……..9993		OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 _____ (SPECIFY)	⌊___|___|___|___| NOT AVAILABLE ……..9993		OBSERVED ……1 ESTIMATED ……2 NOT AVAILABLE……...3 OTHER:_____6 _____ (SPECIFY)

Q45.	INDICATE **MONTH** OF RECORDS FOR Q44a-Q44b ABOVE . . . . . ☐☐ (I.e., For February, record "02")
Q46.	INDICATE **BEGINNING** MONTH AND YEAR FOR Q44d-Q44e ABOVE . . . . . ☐☐ ☐☐☐☐ MONTH YEAR
Q47.	INDICATE **ENDING** MONTH AND YEAR FOR Q44d-Q44e ABOVE. . . . . ☐☐ ☐☐☐☐ MONTH YEAR

Q48.	Approximately, what percentage of the clients who received family planning counseling and services in the past 3 months were between the ages of 15 and 19 years old?	☐☐☐ NONE……...000 DON'T KNOW….998	

Q49. Are there external organizations that provide family planning services or commodities to clients at a discounted rate **in this facility**?	YES……...1 NO…….2 → **Q51** DON'T KNOW…….8 → **Q51**	
Q50a. What is the name of this organization?	Q50b.What year did this facility begin to associate with each organization named?	
1.	YEAR …… ☐☐☐☐ DON'T KNOW……9998	
2.	YEAR …… ☐☐☐☐ DON'T KNOW……9998	
3.	YEAR …… ☐☐☐☐ DON'T KNOW……9998	
4	YEAR …… ☐☐☐☐ DON'T KNOW……9998	

STORAGE: Now I would like to see the place where contraceptive methods are stored. We are just trying to get an idea of how facilities keep their stock and store contraceptive methods. Remember that my findings will be just used for research purposes and will be kept strictly confidential.

Q5 1.	OBSERVE WHETHER ALL THE CONTRACEPTIVE METHODS ARE PROTECTED FROM WATER OR DAMPNESS	YES . . . . . 1 NO . . . . . 2 CANNOT OBSERVE STORAGE AREA……..……3 → **Q70**	
Q5 2.	OBSERVE WHETHER ALL THE CONTRACEPTIVE METHODS ARE OFF THE FLOOR	YES . . . . . 1 NO 2	
Q5 3.	OBSERVE WHETHER THE CEILING ABOVE THE CONTRACEPTIVE METHODS IS INTACT AND NOT LEAKING	YES . . . . . 1 NO 2	
Q5 4.	OBSERVE WHETHER ALL THE CONTRACEPTIVE METHODS ARE PROTECTED FROM DIRECT SUNLIGHT.	YES . . . . . 1 NO 2	
Q5 5.	OBSERVE WHETHER THE ROOM IS CLEAN OF EVIDENCE OF RODENTS (BATS, RATS) OR PESTS (ROACHES, ETC)	YES . . . . . 1 NO 2	
Q5 6.	OBSERVE WHETHER THE INJECTABLE CONTRACEPTION ARE STORED UPRIGHT	YES . . . . . 1 NO . . . . . 2 NOT APPLICABLE/DON'T PROVIDE INJECTABLES……..7	
Q5 7.	OBSERVE WHETHER THE ROOM IS WELL VENTILATED (FREE AIR CIRCULATION)	YES . . . . . 1 NO 2	
Q5 8.	OBSERVE WHETHER PRODUCTS ARE STORED AND ORGANIZED IN A MANNER ACCESSIBLE FOR FIRST-TO-EXPIRE, FIRST-OUT (FEFO) COUNTING AND GENERAL MANAGEMENT.	YES . . . . . 1 NO 2	
Q5 9A	OBSERVE WHETHER STORAGE AREA IS SECURED WITH A LOCK AND KEY	YES . . . . . 1 NO 2	
Q5 9B	ASK IF THE STORAGE ROOM IS ACCESSIBLE DURING NORMAL WORKING HOURS TO AUTHORIZED PERSONNEL	YES . . . . . 1 NO 2	
Q5 9C	ASK IF THE STORAGE ROOM HAS ACCESS IS LIMITED TO UNAUTHORIZED PERSONNEL.	YES . . . . . 1 NO 2	

Q60.	OBSERVE WHETHER STOREROOM IS MAINTAINED IN GOOD CONDITION (GENERALLY CLEAN, ALL TRASH REMOVED, STRONG SHELVES, ORGANIZED BOXES).	YES . . . . . 1 NO 2	
Q61.	OBSERVE WHETHER THE CURRENT SPACE AND ORGANIZATION IS SUFFICIENT FOR EXISTING PRODUCTS AND REASONABLE EXPANSION (I.E., RECEIPT OF EXPECTED PRODUCT DELIVERIES FOR FORESEEABLE FUTURE).	YES . . . . . 1 NO 2	
Q62	DOES THE FACILITY HAVE A FUNCTIONAL REFRIGERATOR FOR STORING MEDICINES	YES, OBSERVED REFRIGERATOR AND FUNCTIONAL……..…….....1 YES, OBSERVED REFRIGERATOR BUT NOT FUNCTIONAL OR NOT USED FOR STORING MEDICINE…….…….2 YES, BUT REFRIGERATOR NOT OBSERVE..3 NO REFRIGERATOR PRESENT……...4	

Q70.	Who is the main person responsible for ordering, receiving and controlling medical supplies – that is, who eventually submits the reports for supplies and receives the bulk supplies?	HEALTH INFORMATION OFFICER.…..01 PHARMACIST . . . . 02 DISPENSER . . . . 03 NON-PHARMACIST MANAGER.....04 NON-PHARMACIST PROPRIETOR…….05 SUPPLIES OFFICER . . . .06 STORE ASSISTANT . . . .07 OTHER _____ ….96 (SPECIFY) NONE……..…...08	→**Q74**
Q71.	Is supplies/stock management the primary role of this person at this facility?	YES . . . . 1 NO ……..…. 2 DON'T KNOW……8	
Q72.	For how long has this person been involved in ordering, receiving and controlling medical supplies at **THIS** facility?	LESS THAN 3 MONTHS…….…..1 3-6 MONTHS…….2 7-11 MONTHS……..…3 1-2 YEARS……4 MORE THAN 2 YEARS ……..…5 DON'T KNOW……..8	
Q73.	In the past TWO Years, has this staff (MENTIONED IN Q70) received training on supplies control and/or record keeping?	YES . . . . 1 NO . . . . …. 2 DON'T KNOW……8	
Q74.	Is there a stock register or stock/bin card where the amount of each medicine received, the amount disbursed, and the amount present today (stock balance) is recorded?	YES . . . . 1 NO 2	→**Q77**

Q75.	How often do you update or reconcile your inventory/stock records?	EVERY D☐☐ THE DAY ITEMS ARE RECEIVED OR DISBURSED . …… . . 95 NEVER . . . . 97 OTHER_____96 (SPECIFY)	
Q76.	How would you describe the system you use to track stock? CIRCLE THE RESPONSE THAT BEST DESCRIBES THE SYSTEM. **READ OUT**	STOCK RECORDS UPDATED ON THE DAY ITEM RECEIVED/DISBURSED……..…..1 STOCK RECORDS NOT ALWAYS UPDATED WHEN ITEM RECEIVED /DISTRIBUTED……..…..2 RECORDS NOT UP TO DATE……...…....3 OTHER_____ _6 (SPECIFY)	
Q77.	Does the facility separate damaged /or expired products from the usable products, and remove them from the inventory? **IF YES, ASK TO SEE EVIDENCE OF EACH OF THE INDICATED PRACTICES AND ALL THAT WERE OBSERVED. ALSO ASK FOR THE STOCK CARD TO CHECK FOR RECORDED BALANCE.**	YES, DAMAGED/EXPIRED ITEM REMOVED FROM INVENTORY . . . ……. ... 1 REMOVED FROM SHELVES AND NO EXPIRED ITEMS PRESENT……... 2 EXPIRED ITEMS OBSERVED . . . . 3 REPORTED YES BUT CANNOT OBSERVE….4 NO 5	

CHECK Q8A(10) QUALITY ASSURANCE/STANDARD OPERATING PROCEDURES IF OFFERING FP SERVICES ☐ **NOT OFFERING FP SERVICES** ☐ **Q88**			
Now I want to ask about common quality assurance activities and guidelines. For each activity or guideline mentioned, please tell me if this exists anywhere in the facility.			
Q78.	Is there any type of quality assurance committee or staff meetings that assure quality control for family planning service delivery?	YES, ……..……..1 NO……..2 → **Q81** DON'T KNOW ……,,,……..8 → **Q81**	
Q79.	Can I see some document or record that shows that your facility has a quality assurance committee or staff meetings?	SEEN……1 NOT SEEN……..2	
Q80.	How many times has the committee met in the last 3 months?	NUMBER OF TIMES [__|__|__| DON'T KNOW……..998	

Q81.	How often do external supervisors come to this facility to conduct quality assurance assessments?	MONTHLY…… 1 QUATERLY…….. 2 ANNUALY……. 3 NEVER……. 4 OTHER (SPECIFY)_____6	→ **Q84**
Q82.	In the last one year, how many times have you had external supervisory visits?	NUMBER OF TIMES [__|__|__| DON'T KNOW……..998 NEVER…….997	→ **Q84**
Q83.	How often do you receive feedback after external supervision visits?	ALWAYS……1 SOMETIMES……..2 RARELY……3 NEVER……4	
Q84.	Are there any written guidelines or service protocols in this facility for family planning services?	YES……..1 NO……..2 DON'T KNOW ……,,,……..8	→ **Q86** → **Q86**
Q85.	Can I see any of the written guidelines or service protocols in this facility for family planning services?	SEEN……1 NOT SEEN……..2	
Q86.	Are there any written guidelines or service protocols in this facility for the integration of family planning and HIV services?	YES ……..……..1 NO……..2 DON'T KNOW ……,,,……..8	→ **Q88** → **Q88**
Q87.	Can I see any of the written guidelines or service protocols in this facility for the integration of family planning and HIV services?	SEEN……1 NOT SEEN……..2	
Q88.	Are you using any guideline(s) or tool(s) to screen patients for pregnancy?	YES ……..……..1 NO……..2 DON'T KNOW ……,,,……..8	→ **Q91** → **Q91**
Q89.	Can I see any of the written guidelines or protocols in this facility for screening patients for pregnancy?	SEEN……1 NOT SEEN……..2	
Q90	Do these guideline(s) recommend that you screen all patients for pregnancy before dispensing a new family planning method?	YES ……..……1 NO ……2 OTHER GUIDELINES PROVIDED _____ 6 (Specify) DON'T KNOW ……8	
Q91.	Are periodic audits or reports of medical records or service registers conducted/compiled at least quarterly?	YES ……..……..1 NO……..2 DON'T KNOW ……,,,……..8	→ **Q93** → **Q93**
Q92	Can I see any of the periodic audits or reports of medical records or service registers conducted/compiled?	SEEN……1 NOT SEEN……..2	

IEC MATERIALS AND OUTREACH ACTIVITIES					
Q93.	Are the following **family planning** Information, Education, Communication materials displayed and/or available for use? THE ENUMERATOR SHOULD ASK THE QUESTION AND ASK THE RESPONDENT TO ALLOW THEM WALK TO THE AREAS WHERE THESE MATERIALS COULD BE POSSIBLY AVAILABLE.DISPLAYED	OBSERVED	REPORTED, NOT SEEN	NOT AVAILABLE	DON'T KNOW

	a) Posters	1	2	3	8
	b) Informational flip chart	1	2	3	8
	c) Brochures/pamphlets	1	2	3	8
	d) Information sheets	1	2	3	8
	e) Job aids	1	2	3	8
	f) Demonstration models	1	2	3	8
	g) Counseling cards	1	2	3	8
	h) Samples of various FP methods	1	2	3	8

Q94.	Does this facility usually conduct health outreach programs?	YES . . . . . 1 NO . . . . . 2 → **Q102** DON'T KNOW……..8 → **Q102**	
Q95.	Does the outreach program usually discuss family planning/birth spacing?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW……..8	
Q96.	Does this outreach program usually offer methods of family planning?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW……..8	
Q97.	What services (other services) does this program usually offer? **CHOOSE ALL**	ANTENATAL CARE…….A IMMUNIZATION……..B GROWTH MONITORING……C CERVICAL CANCERSCREENING….D BREAST CANCER SCREENING…..E POSTNATAL CARE……F HIV TESTING AND COUSELLING…G GENDER BASED VIOLENCE…….H OTHER (SPECIFY)_____-.X	
Q98.	How many sites are regularly visited through this outreach program?	NUMBER . . . . . .[___|___|___]	
Q99.	About how often are the sites usually visited through this outreach program?	Bi-WEEKLY……..……1 MONTHLY . . . . 2 QUARTERLY . . . . 3 ANNUALLY . . . . 4 OTHER _____6 (Specify)	
Q100.	Are these outreaches MAINLY funded by this facility or by other facilities/organizations?	FUNDED BY THIS FACILITY…….1 → **Q102** FUNDED BY OTHER FACILITY/ORGANIZATION…….2 DON'T KNOW ……..8 → **Q102**	
Q101.	If funded by another facility/organization: What type of facility/organization funds your outreach health program? **CHOOSE ALL**	GOV'T……..…A INTL NGO …… ……..B LOCAL NGO……C COMMUNITY……D PRIVATE……..E OTHER_____X (SPECIFY) DON'T KNOW……..…Z	
Q102.	Does this facility have Community Health Workers attached to it?	YES . . . . . 1 NO . . . . . 2 → **Q200** DON'T KNOW……..8 → **Q200**	
Q103.	How many CHWs are attached to this facility?	[__|__|__|__] DON'T KNOW……..9998	

Q10 4.	Are the CHW's trained on family planning?	YES . . . . . ….. ….1 NO . . . . . ……... 2 DON'T KNOW…….8	
Q10 5.	Do any of the CHW's provide FP commodities?	YES . . . . . ….. ….1 NO . . . . . ……... 2 DON'T KNOW…….8	
Q10 6.	What organization sponsors the Community Health Workers attached to this facility? **CHOOSE ALL**	MOH . . . .A MARIE STOPES . . . . .B FHOK ……C GTZ ……...D OTHER _____X (SPECIFY)	

Now, I would like to ask you some questions about the physical infrastructure and equipment that you have at this facility.

PHYSICAL INFRASTRUCTURE AND EQUIPMENT

Are the following types of facilities/equipment available on a functioning basis at the service location? INTERVIEWER NEEDS TO CHECK FUNCTIONING WHERE POSSIBLE.

Q200.	DOES THIS FACILITY HAVE A SIGN POSTED WITH ITS HOURS OF OPERATION AND SERVICES?	Observed, both hours and services. . . . . .1 Observed, hours only……... . . . . . 2 Observed, services only……3 Reported, both hours and services……4 Reported, hours only……5 Reported, services only……6 No sign……7		
		Not Available	**Available but not functioning**	**Available and functioning**
Q201.	Electricity	1	2	3
Q202.	Back-up generator	1	2	3
Q203.	Piped water supply (running water)	1	2	3
Q204.	Toilet facilities/latrine	1	2	3
Q205.	Telephone/GSM (dedicated to the facility)	1	2	3
Q206.	Computer(Desktop/Laptop)	1	2	3
Q207.	Internet	1	2	3
Q208.	Subscription to bulk SMSs	1	2	3
Q209.	Storage area for drugs and supplies	1	2	3
Q210.	Sharps container for needles	1	2	3
Q211.	Infection Control Buckets	1	2	3
Q212.	Laboratory	1	2	3
Q213.	Private examination room (i.e, a private room for pelvic exams and IUD insertion)	1	2	3
Q214.	Exam table/examination couch for gynecological examination	1	2	3
Q215.	Examination light	1	2	3
Q216.	Examination stool	1	2	3
Q217	Delivery room with bed and lighting	1	2	3

.				
Q218.	Operating theatre with basic/required equipment	1	2	3
Q219.	Weighing scale (adult)	1	2	3
Q220.	Infant weighing scale	1	2	3
Q221.	Blood pressure machine/sphygmomanometer	1	2	3
Q222.	Stethoscope	1	2	3
Q223.	Fetal stethoscope	1	2	3
		Not Available	**Available but not functioning**	**Available and functioning**
Q224.	Sterilizer/autoclave	1	2	3
Q225.	Boiler (or Stove/Pot)	1	2	3
Q226.	Microscope	1	2	3
Q227.	Oxygen apparatus	1	2	3
Q228.	Centrifuge	1	2	3
Q229.	Clinical thermometer	1	2	3
Q230.	Scalpels	1	2	3
Q231.	Two pairs of scissors	1	2	3
Q232.	Long needle holder	1	2	3
Q233.	Forceps	1	2	3
Q234.	Sponge holding forceps	1	2	3
Q235.	Tenacula (Volsellum forcepts)	1	2	3
Q236.	Vaginal speculum (small size)	1	2	3
Q237.	Vaginal speculum (medium size)	1	2	3
Q238.	Vaginal speculum (large size)	1	2	3
Q239	Minor surgery kit (e.g. artery forceps,	1	2	3

.	hemostat)			
Q240.	Vacuum extractor	1	2	3
Q241.	Manual vacuum aspiration (MVA) kit	1	2	3
Q242.	Minilaparotomy/BTL kit	1	2	3
Q243.	Uterine elevator	1	2	3
Q244.	Tubal hook	1	2	3
Q245.	Vasectomy kit	1	2	3
Q246.	Uterine sounds	1	2	3
Q247.	Canula and trochar for inserting implants	1	2	3
Q248.	Sealed implants pack (for performing FP implant insertions and removals)	1	2	3
Q249.	IUD insertion kits	1	2	3

Now, I would like to ask you some questions about the physical infrastructure and equipment that you have at this facility.

CONSUMABLE SUPPLIES

Are the following types of supplies available on a regular basis at the service location?
INTERVIEWER NEEDS TO CHECK AVAILABILITY WHERE POSSIBLE.

		Not Available	**Available sometimes but not on a regular basis**	**Available all of the time**
Q250.	Liquid/powder soap	1	2	3
Q251.	Hand washing soap	1	2	3
Q252.	Chlorine (Jik)	1	2	3
Q253.	Sutures	1	2	3
Q254.	Antiseptic solution (such as hibitane, Savlon)	1	2	3
Q255.	Methylated spirits	1	2	3
Q256	Sterile gauze pad or cotton	1	2	3

.	wool			
Q257 .	Sterile disposable latex gloves	1	2	3
Q258 .	Gloves examination	1	2	3
Q259 .	Gloves sterile	1	2	3
Q260 .	Gloves heavy duty	1	2	3
Q261	Long Gloves	1	2	3
Q262 .	Disposable sterile syringes and needles	1	2	3
Q263 .	Intravenous kit	1	2	3
Q264 .	Scalpel blades	1	2	3
Q265 .	Sedatives (such as Valium)	1	2	3
Q266 .	Atropine	1	2	3
Q267 .	Opioid analgesic (codeine, DF118, Morphine)	1	2	3
Q268 .	Local anesthetic (such as lignocaine)	1	2	3

Q269 .	RECORD THE TIME [24-HOUR TIME] HOUR …… MINUTES ……..	
Thank you very much for taking the time to answer my questions. Once again, any information you have given will be kept confidential. Have a good day!		
COMMENTS:		

QUESTIONNAIRE IDENTIFICATION NO:[__|__|__|__|__|__|__|__]
5 digit facility code + 3 digit prov code

MLE Measurement, Learning & Evaluation Project for the Urban Reproductive Health Initiative

Service Provider Interview – Kenya 2012

IDENTIFICATION	
CITY NAME & CODE _____**KISUMU**_____ (Nairobi=1, Mombasa=2, Kisumu =3, Machakos=4, Kakamega=5)	[3]
FACILITY NAME AND CODE _____	[__|__|__|__|__|__|__] *city code +fac type+ fac ID*
PROVIDER NAME & CODE (FROM THE FACILITY AUDIT LIST – Q7d)_____	[__|__|__]

RESPONDENT: NOT INTERVIEWED = 1 PREVIOUSLY INTERVIEWED IN THIS FACILITY = 2 IF=2 END → ☐

IF PREVIOUSLY INTERVIEWED, IN OTHER FACILITY NAME AND CODE_____ (END)

city code +fac type+ facility ID ☐☐☐☐☐

INTERVIEWER VISITS

VISIT No.	1	2	3	FINAL VISIT
DATE	DAY/MONTH/YEAR [____/_____/_**11**_]	DAY/MONTH/ YEAR [____/_____/__**11**_]	DAY/ MONTH/YEAR [____/_____/__**11**_]	DAY [____|____] MONTH [____|____] YEAR [_**2**_|_**0**_|_**1**_|_**1**_]
INTERVIEWER'S NAME	_____	_____	_____	_____
INTERVIEWER CODE	☐☐☐	☐☐☐	☐☐☐	☐☐
RESULT*	☐	☐	☐	☐
NEXT VISIT: DATE:	[____/_____/**11**_]	[____/_____/**11**_]	[____/_____/**11**_]	TOTAL NO. OF VISITS
TIME:	☐☐ ☐☐ H H M M	☐☐ ☐☐ H H M M	☐☐ ☐☐ H H M M	☐

***RESULT CODES:**
1. COMPLETED 4. REFUSED
2. RESPONDENT NOT AVAILABLE 5. PARTLY COMPLETED
3. POSTPONED 6. OTHER _____
(Specify)

QUESTIONNAIRE IDENTIFICATION NO:[__|__|__|__|__|__|__|__]
5 digit facility code + 3 digit prov code

SUPERVISOR	OFFICER EDITOR	KEYED BY
NAME _____ _	NAME _____ _	NAME _____ _
CODE [____|____]	CODE [____|____]	CODE [____|____]
DATE [____/_____/_**11**_] DD MM YY	DATE [____/_____/_**11**_] DD MM YY	DATE [____/_____/_**11**_] DD MM YY

Service Provider Consent Form
Purpose of the study

Hello! My name is _____, I am part of a research team working under Tupange with technical assistance from the Measurement, Learning & Evaluation project. We are carrying out research on family planning in urban areas of Kenya. Your participation in this study will help to improve family planning services in this city. We will be asking questions to select service providers (nurses, doctors and auxiliary nurse midwives) about the family planning services they provide.

Explanation of Procedures

We will interview you in a room where you cannot be overheard, to ensure confidentiality. The interview will take about 30 minutes. We will ask you about demographics, pre-service training, in-service training, counseling procedures for FP, consent requirements for delivery of family planning.

You may choose not to give the interview, or not to answer a question for any reason. You can stop the interview at any time by telling me that you want to stop. If you decide not to give the interview or not to answer a question there will be no effect on your job, or professional standing. We will only interview you once.

Confidentiality

Your answers will not be shared with anyone outside this project. Your name will not appear on the survey. We will not share answers with your clients, colleagues, government officials or anyone else. At the end of the study, we will put all the answers together and make a report.

Who is taking part in this study?

Your facility was selected from a complete list of all facilities in the city.

Benefits

Research helps society by providing new knowledge. You may not benefit directly from this survey. However, your answers will be important for planning better programs to make sure women can access the health care they need.

Risks and Discomforts

There is the possibility you may feel uncomfortable about a question I ask. If you feel uncomfortable about any of the questions, you do not have to answer them. I can skip those questions and go on to the next section. You can end the interview at any time.

There is also the possibility that someone may approach us during the interview to find out what we are discussing. We intend to do this interview in private, if someone approaches us, we will stop the interview until we can continue in private.

Costs and Payment for Participation

There are no costs for being in this study. You will not receive any money for taking part in this study.

Questions

This study has been approved by the Kenya Medical Research Institute, and the University of North Carolina (USA). If you have any questions about this study or the results, you can contact the following: the study principle investigator at the Measurement, Learning & Evaluation Project, Ms. Tumlinson Kat at +254 0724 827 623, The Secretary, National Ethics Review Committee at Kenya Medical Research Institute, PO Box 54840-00200 Nairobi, Telephone numbers: +254

(020) 2722541, 0722205901, 0733400003, email: ERC@kemri.org; or the Institutional Review Board at the University of North Carolina at +1 919-966-3113. You have the right to ask, and have answered, any questions you may have about this research. If you have questions or concerns, you should contact the researchers listed above, or ask me before or after the interview. Do you have any questions now?

Consent

Now, can you tell me if you agree to participate in this research? If you say yes, it means that you have agreed to be part of the study.

╢1…. Yes╢2….. No

Would you like a copy of this document?

Signature of provider: _____

Date: _____

Signature of interviewer: _____

QUESTIONNAIRE IDENTIFICATION NO:[__|__|__|__|__|__|__|__|__]
5 digit facility code + 3 digit prov code

BACKGROUND INFORMATION			
Source	**Questions**	**Coding**	**Skip**
Q1.	RECORD THE TIME (IN 24 HOUR FORMAT)	Hour …… M[ ][ ]….. [ ][ ]	
Q2.	SEX OF PROVIDER INTERVIEWED	MALE……1 FEMALE……..2	
Q3.	How long have you been working here at this facility?	YEARS… [ ][ ] LESS THAN ONE YEAR = 00 DON'T KNOW = 98	
Q4.	What cadre of staff are you?	OBSTETRICIAN/GYNECOLOGIST (OB/GYN)……..01 SURGEON……..02 PEDIATRICIAN ……..…03 PHYSICIAN……..04 PHARMACISTS……05 MEDICAL OFFICER… ……06 CLINICAL OFFICER……...07 REGISTERED NURSE ……..08 ENROLLED COMMUNITY NURSE……09 BSC. NURSE……..…..10 COMMUNITY HEALTH EXTENSION WORKER (CHEW)….11 PUBLIC HEALTH OFFICER……...12 VCT PROVIDER……13 OTHER _____96 (SPECIFY)	
Q5.	How old were you at your last birthday?	YEARS…….. [ ][ ]	
Q6.	What is your religion?	CHRISTIAN-CATHOLIC……1 CHRISTIAN-PROTESTANT/OTHER CHRISTIAN……2 ISLAM……..……3 TRADITIONAL……4 NO RELIGION ……..…..5 OTHER_____6 (SPECIFY)	
Q7.	How many years ago did you finish your **pre-service** training? INCLUDE INTERNSHIP AS PRE-SERVICE	YEARS AGO….. [ ][ ] LESS THAN ONE YEAR = 00 NO PRE-SERVICE TRAINING=97	
Q8.	How many years have you been working as a health care provider?	NUMBER OF YEARS: [ ][ ]	

Q9.	In which department or unit are you assigned to work in today?	OUTPATIENT DEPARTMENT (OPD) ..... 01 MCH/FP/ANC……..……02 MATERNITY…….……03 SURGICAL……04 MEDICAL WARDS……..05 HIV SERVICE OUTLETS……06 OTHER _____96 (SPECIFY)	
Q10.	How long have you been working in this department? COMPLETE YEARS IF LESS THAN ONE YEAR, RECORD "00"	NUMBER OF YEARS: ☐☐	
Q11.	Have you received any **in-service** training on providing methods of family planning?	YES……1 NO……..2 →	**Q13**
Q12.	How long ago was the last **in-service** training that you attended on providing methods of family planning?	DAYS AGO…….1 WEEKS AGO……..2 MONTHS AGO…...3 YEARS AGO…....4 DON'T REMEMBER….998 ☐☐	

TRAINING ON FAMILY PLANNING

Now, I will ask you few questions related to training on FAMILY PLANNING.

Q13. CHECK Q7 AND Q11 ON PRE-SERVICE AND IN-SERVICE TRAINING:

HAS HAD BOTH PRE AND IN-SERVICE FP TRAINING
(Q7=00 OR HIGHER AND Q11=1)
THEN ANSWER Q14a to Q14d

HAS HAD IN-SERVICE FP TRAINING ONLY ☐ **4▶ to Q14d**
(Q7=97 AND Q11=1)

HAS HAD PRE-SERVICE FP TRAINING ONLY
(Q7=00 OR GREATER AND Q11=2)
THEN ANSWER 14a ONLY

HAS NOT HAD ANY PRE OR IN-SERVICE FP TRAINING Q15a ☐ →
(Q7=97 AND Q11=2)

TOPICS		Q14a. Did your **pre-service** training cover **[TOPIC]**?	Q14b. Have you ever attended an **in-service** training on **[TOPIC]**?	Q14c. What year was your most recent **in-service** training on **[TOPIC]**?	Q14d. Which organization or government ministry mainly conducted this training? LIST NAME OF ORGANIZATION.
(01)	Contraceptive technology update	YES . . . . . .1 NO . . . . 2 DK……8	YES . . . . . 1 NO . . . . . .2 →**(02)**	[__|__|__|__] **DK=9998**	_____ |__|__|
(02)	Exclusive breastfeeding counseling/LAM	YES . . . .1 NO . . . . . 2 DK……8	YES . . . . . .1 NO . . . . . .2 →**(03)**	[__|__|__|__] **DK=9998**	_____ |__|__|

TOPICS		Q14a. Did your **pre-service** training cover **[TOPIC]**?	Q14b. Have you ever attended an **in-service** training on **[TOPIC]**?	Q14c. What year was your most recent **in-service** training on **[TOPIC]**?	Q14d. Which organization or government ministry mainly conducted this training? LIST NAME OF ORGANIZATION.
(03)	Natural family planning (rhythm method, cycle beads, etc.)	YES . . . .1 NO . . . .2 DK……8	YES . . . . .1 NO . . . . . .2 →**(04)**	[___|___|___|___] **DK=9998**	_____ |___|___|
(04)	Emergency Contraceptive	YES . . . .1 NO . . . . DK……8	YES . . . . . 1 NO . . . . . .2 →**(05)**	[___|___|___|___] **DK=9998**	_____ |___|___|
(05)	Oral pills	YES . . . .1 NO . . . . . 2 DK……8	YES . . . . . 1 NO . . . . . .2 →**(06)**	[___|___|___|___] **DK=9998**	_____ |___|___|
(06)	FP counseling skills	YES . . . .1 NO . . . . . 2 DK……8	YES . . . . . 1 NO . . . . . .2 →**(07)**	[___|___|___|___] **DK=9998**	_____ |___|___|
(07)	Clinical skills on IUD	YES . . . . . .1 NO . . . . 2 DK……8	YES . . . . . 1 NO . . . . . .2 →**(08)**	[___|___|___|___] **DK=9998**	_____ |___|___|
(08)	Clinical skills on injectable contraceptive	YES . . . . . .1 NO . . . . 2 DK……8	YES . . . . . 1 NO . . . . . .2 →**(09)**	[___|___|___|___] **DK=9998**	_____ |___|___|
(09)	Clinical skills on implant	YES . . . . . . NO . . . . 2 DK……8	YES . . . . . 1 NO . . . . . .2 →**(10)**	[___|___|___|___] **DK=9998**	_____ |___|___|
(10)	Clinical skills on Female Sterilization	YES . . . . .1 NO . . . . 2 DK……8	YES . . . . . 1 NO . . . . . .2 →**(11)**	[___|___|___|___] **DK=9998**	_____ |___|___|
(11)	Clinical skills on male sterilization	YES . . . . .1 NO . . . . 2 DK……8	YES . . . . . 1 NO . . . . . .2 →**(12)**	[___|___|___|___] **DK=9998**	_____ |___|___|
(12)	Management of incomplete abortion (Post-Abortion Care)-	YES . . . . .1 NO . . . . 2 DK……8	YES . . . . .1 NO . . . . . .2 →**(13)**	[___|___|___|___] **DK=9998**	_____ |___|___|
(13)	Manual vacuum aspiration (MVA)	YES . . . . . .1 NO . . . . 2 DK……8	YES . . . . .1 NO . . . . . .2 →**(14)**	[___|___|___|___] **DK=9998**	_____ |___|___|
(14)	2006 (New) Comprehensive Reproductive Health Curriculum -	YES . . . . .1 NO . . . . 2 DK……8	YES . . .1 NO . . . 2→**(Q15a)**	[___|___|___|___] **DK=9998**	_____ |___|___|

TOPICS		Q14a. Did your **pre-service** training cover **[TOPIC]**?	Q14b. Have you ever attended an **in-service** training on **[TOPIC]**?	Q14c. What year was your most recent **in-service** training on **[TOPIC]**?	Q14d. Which organization or government ministry mainly conducted this training? LIST NAME OF ORGANIZATION.
	The training on all Reproductive Health components including Abortion care and Cancer screening for about five months				

QUESTIONNAIRE IDENTIFICATION NO:[__|__|__|__|__|__|__|__]

5 digit facility code + 3 digit prov code

Now I would like to ask you some questions about your knowledge and provision of various methods of family planning. If you have provided a particular method before, we are also interested in the availability and quality of the materials required to provide that method.						
METHOD	Q15a. Can you please tell me which of the following best describes your knowledge of **[METHOD]**: 1. You know **[METHOD]**sufficiently well to counsel and provide/assist in provision to a client; 2. You know **[METHOD]**sufficiently well to counsel, but not to provide; 3. You know little about **[METHOD]**and would not feel comfortable counseling or providing; 8. You do not know **[METHOD]**at all	Q15b. Do you provide **[METHOD]** to clients in this department/unit?	Q15c. Have you experienced any stockouts in this facility that lasted more than **24 hours** of **[METHOD]** in the last one year?	Q15d. If yes, how many total days of stockouts did this facility have in the last **ONE YEAR** of **[METHOD]** (all stockouts combined)?	Q15e. In the last one year, have you lacked essential equipment needed to provide **[METHOD]** in the last **ONE YEAR**?	15f. If Yes, how many total days did you lack essential equipment needed to provide **[METHOD]** in the last **ONE YEAR**?
(01) Combined oral pill	YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL AND PROVIDE/ASSIST IN PROVISION TO A CLIENT;……1 YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL, BUT NOT TO PROVIDE;,,,,,,, …….2 **(02)** YOU KNOW LITTLE ABOUT METHOD AND WOULD NOT FEEL COMFORTABLE COUNSELING OR PROVIDING;…….3 YOU DO NOT KNOW METHOD AT ALL……8	YES……..1 NO……2→ **(02)**	YES……...1 NO……2→ **(02)** PRESCRIPTION ONLY……..3→ **(02)**	DAYS… ☐☐☐ CONSTANT PROBLEM…995 DON'T KNOW..998		

Now I would like to ask you some questions about your knowledge and provision of various methods of family planning. If you have provided a particular method before, we are also interested in the availability and quality of the materials required to provide that method.						
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(02) Progestin-only pill	YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL AND PROVIDE/ASSIST IN PROVISION TO A CLIENT;……1 YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL, BUT NOT TO PROVIDE;,,,,,,, …….2 **(03)** YOU KNOW LITTLE ABOUT METHOD AND WOULD NOT FEEL COMFORTABLE COUNSELING OR PROVIDING;…… ….3 YOU DO NOT KNOW METHOD AT ALL……8	YES……..1 NO……2→ **(03)**	YES……...1 NO……2→ **(03)** PRESCRIPTION ONLY… …..3 → **(03)**	DAYS… ☐☐☐ CONSTANT PROBLEM…995 DON'T KNOW..998		

QUESTIONNAIRE IDENTIFICATION NO:[__|__|__|__|__|__|__|__]

5 digit facility code + 3 digit prov code

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(03) Injectables	YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL AND PROVIDE/ASSIST IN PROVISION TO A CLIENT;……1 YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL, BUT NOT TO PROVIDE;,,,,,,, …….2 **(04)** YOU KNOW LITTLE ABOUT METHOD AND WOULD NOT FEEL COMFORTABLE COUNSELING OR PROVIDING;…….3 YOU DO NOT KNOW METHOD AT ALL……8	YES……..1 NO……2→ **(04)**	YES……...1 NO……2→ **(04)** PRESCRIPTION ONLY…… ..3 → **(04)**	DAYS… CONSTANT PROBLEM…995 DON'T KNOW..998		

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(04) Male condom	YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL AND PROVIDE/ASSIST IN PROVISION TO A CLIENT;……1 YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL, BUT NOT TO PROVIDE;,,,,,,, …….2 **(05)** YOU KNOW LITTLE ABOUT METHOD AND WOULD NOT FEEL COMFORTABLE COUNSELING OR PROVIDING;…….3 YOU DO NOT KNOW METHOD AT ALL……8	YES……..1 NO……2→ **(05)**	YES……...1 NO……2→ **(05)** PRESCRIPTION ONLY…,…..3 → **(05)**	DAYS… ☐☐☐ CONSTANT PROBLEM…995 DON'T KNOW..998		

Now I would like to ask you some questions about your knowledge and provision of various methods of family planning. If you have provided a particular method before, we are also interested in the availability and quality of the materials required to provide that method.						
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(05) Female condom	YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL AND PROVIDE/ASSIST IN PROVISION TO A CLIENT;……1 YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL, BUT NOT TO PROVIDE;,,,,,,, …….2 **(06)** YOU KNOW LITTLE ABOUT METHOD AND WOULD NOT FEEL COMFORTABLE COUNSELING OR PROVIDING;…… ….3 YOU DO NOT KNOW METHOD AT ALL……8	YES……..1 NO……2→ **(06)**	YES……...1 NO……..…2 → **(06)** PRESCRIPTION ONLY……...3→ **(06)**	DAYS… ☐ CONSTANT PROBLEM…995 DON'T KNOW..998		

QUESTIONNAIRE IDENTIFICATION NO:[__|__|__|__|__|__|__|__]

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(06) Emergency contraception	YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL AND PROVIDE/ASSIST IN PROVISION TO A CLIENT;……1 YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL, BUT NOT TO PROVIDE;,,,,,,, …….2 **(07)** YOU KNOW LITTLE ABOUT METHOD AND WOULD NOT FEEL COMFORTABLE COUNSELING OR PROVIDING;…… ….3 YOU DO NOT KNOW METHOD AT ALL……8	YES……..1 NO……2→ **(07)**	YES……...1 NO……2→ **(07)** PRESCRIPTION ONLY…,,…..3→ **(07)**	DAYS… ☐ CONSTANT PROBLEM…995 DON'T KNOW..998		

Now I would like to ask you some questions about your knowledge and provision of various methods of family planning. If you have provided a particular method before, we are also interested in the availability and quality of the materials required to provide that method.						
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(07) IUD	YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL AND PROVIDE/ASSIST IN PROVISION TO A CLIENT;……1 YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL, BUT NOT TO PROVIDE;,,,,,,, …….2 **(08)** YOU KNOW LITTLE ABOUT METHOD AND WOULD NOT FEEL COMFORTABLE COUNSELING OR PROVIDING;…….3 YOU DO NOT KNOW METHOD AT ALL……8	YES……..1 NO……..2 → **(08)**	YES……...1 NO……..,…2 → **(15e)** PRESCRIPTION ONLY……..3 → **(08)**	DAYS… [ ][ ][ ] CONSTANT PROBLEM…995 DON'T KNOW..998	YES…….. NO…… → 2 **(08)**	DAYS… [ ][ ] CONSTANT PROBLEM…995 DK……998

Now I would like to ask you some questions about your knowledge and provision of various methods of family planning. If you have provided a particular method before, we are also interested in the availability and quality of the materials required to provide that method.						
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(08) Implants	YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL AND PROVIDE/ASSIST IN PROVISION TO A CLIENT;……1 YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL, BUT NOT TO PROVIDE;,,,,,,, …….2 **(09)** YOU KNOW LITTLE ABOUT METHOD AND WOULD NOT FEEL COMFORTABLE COUNSELING OR PROVIDING;…….3 YOU DO NOT KNOW METHOD AT ALL……8	YES……..1 NO……2→ **(09)**	YES……...1 NO……..,…2 → **(15e)** PRESCRIPTION ONLY……..3 → **(09)**	DAYS… CONSTANT PROBLEM…995 DON'T KNOW..998	YES…….. NO……2 **(09)**	DAYS… → CONSTANT PROBLEM…995 DK……998

Now I would like to ask you some questions about your knowledge and provision of various methods of family planning. If you have provided a particular method before, we are also interested in the availability and quality of the materials required to provide that method.						
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(09) Female sterilization	YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL AND PROVIDE/ASSIST IN PROVISION TO A CLIENT;……1 YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL, BUT NOT TO PROVIDE;,,,,,,, …….2 **(10)** YOU KNOW LITTLE ABOUT METHOD AND WOULD NOT FEEL COMFORTABLE COUNSELING OR PROVIDING;…….3 YOU DO NOT KNOW METHOD AT ALL……8	YES……..1 NO……2→ **(10)**			YES……1 NO……2 **(10)**	DAYS… → CONSTANT PROBLEM…995 DK……998

Now I would like to ask you some questions about your knowledge and provision of various methods of family planning. If you have provided a particular method before, we are also interested in the availability and quality of the materials required to provide that method.						
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(10) Male sterilization	YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL AND PROVIDE/ASSIST IN PROVISION TO A CLIENT;……1 YOU KNOW METHOD SUFFICIENTLY WELL TO COUNSEL, BUT NOT TO PROVIDE;,,,,,,, …….2 **(11)** YOU KNOW LITTLE ABOUT METHOD AND WOULD NOT FEEL COMFORTABLE COUNSELING OR PROVIDING;…….3 YOU DO NOT KNOW METHOD AT ALL……8	YES……..1 NO……2→ **(11)**			YES……..1 NO……2 **(11)**	DAYS… ☐☐ CONSTANT PROBLEM…995 DK……998

METHOD	Q15a. Can you please tell me which of the following best describes your knowledge of [METHOD]: 1. Know the method sufficiently well to counsel and ADVISE to client 2. Know little about the method and would not feel comfortable counseling or recommending 8. Do not know method	Q15b. Have you ever recommended [METHOD] to clients at this facility?
(11) Natural methods (Rhythm, periodic abstinence, withdrawal, cycle beads)	KNOW THE METHOD SUFFICIENTLY WELL TO COUNSEL AND ADVISE TO CLIENT……..1 KNOW LITTLE ABOUT THE METHOD AND WOULD NOT FEEL COMFORTABLE COUNSELING OR RECOMMENDING……...2 . **(12)** DO NOT KNOW METHOD……..8	Yes……..1 No……2
(12) Lactational Amenorhea Method (LAM)	KNOW THE METHOD SUFFICIENTLY WELL TO COUNSEL AND ADVISE TO CLIENT……..1 KNOW LITTLE ABOUT THE METHOD AND WOULD NOT FEEL COMFORTABLE COUNSELING OR RECOMMENDING……...2 **(Q16)** DO NOT KNOW METHOD……..8	Yes……..1 No……2

Q16. **CHECK Q15a:**

COUNSELS/PROVIDES ANY FP METHOD (ANY Q15a Parts 1 to 10 = 1 OR 2) ☐ ↓

DOES NOT COUNSEL/PROVIDE ANY FP METHOD **Q22** (**ALL** Q15a Parts 1 to 10 = 3 OR 8) ☐ →

Now I would like to ask you specifically about the contraceptive methods that you provide. (ASK ONLY ABOUT THE FAMILY PLANNING METHODS THE RESPONDENT Counsels/PROVIDES - Q15A)						
METHOD	Q17a. What is the minimum age that you would offer this [METHOD]?	Q17b. What is the maximum age that you would offer this [METHOD]?	Q17c. Is there a minimum number of children a person must have before you will offer [METHOD]?	Q17d. What is that minimum number of children?	Q17e. Does the client require somebody else's consent before the method is provided?	Q17 f. Would you offer METHOD to an unmarried person?
(1) Combined oral pills	☐☐ NO MIN…...93 DK…….98	☐☐ NO MAX…….93 DK…….98	YES . . 1 NO . . 2 →**Q17e** DK……8→**Q17e**	☐☐	YES . . . .1 NO 2	YES . . . .1 NO 2
(2) Progestin-only pill	☐☐ NO MIN…...93 DK…….98	☐☐ NO MAX…….93 DK…….98	YES . . 1 NO . . 2 →**Q17e** DK…….8→**Q17e**	☐☐	YES . . . .1 NO 2	YES . . . .1 NO 2
(3) Injectables	☐☐ NO MIN…...93 DK…….98	☐☐ NO MAX……..93 DK…….98	YES . . 1 NO . . 2 →**Q17e** DK…….8→**Q17e**	☐☐	YES . . . .1 NO 2	YES . . . .1 NO 2
(4) Male condom	☐☐ NO MIN…...93 DK…….98	☐☐ NO MAX……..93 DK…….98	YES . . .1 NO . . 2 →**Q17e** DK…….8→**Q17e**	☐☐	YES . . . .1 NO 2	YES . . . .1 NO 2
(5) Female condom	☐☐ NO MIN…...93 DK…….98	☐☐ NO MAX……..93 DK…….98	YES . . .1 NO . . 2 →**Q17e** DK…….8→**Q17e**	☐☐	YES . . . .1 NO 2	YES . . . .1 NO 2

(6) EC	NO MIN…...93 DK…….98	NO MAX…….93 DK…….98	YES . . .1 NO . . 2 →**Q17e** DK…….8→**Q17e**		YES . . . .1 NO 2	YES . . . .1 NO 2
(7) IUD	NO MIN…...93 DK…….98	NO MAX……..93 DK…….98	YES . . .1 NO . . 2 →**Q17e** DK…….8→**Q17e**		YES . . . .1 NO 2	YES . . . .1 NO 2
(8) Implants	NO MIN…...93 DK…….98	NO MAX...93 DK…….98	YES . . .1 NO . . 2→**Q17e** DK…….8→**Q17e**		YES . . . .1 NO 2	YES . . . .1 NO 2
(9) Female sterilization	NO MIN…….93 DK…….98	NO MAX...93 DK…….98	YES . . .1 NO . . 2 →**Q17e** DK…….8→**Q17e**		YES . . . .1 NO 2	YES . . . .1 NO 2
(10) Male sterilization	NO MIN….93 DK…….98	NO MAX...93 DK…….98	YES . . .1 NO . . 2 →**Q17e** DK…….8→**Q17e**		YES . . . .1 NO 2	YES . . . .1 NO 2

Q18.	What do you do/tell the client when counseling about FP? PROBE – Anything else? **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.** DO NOT READ OUT OPTIONS	IDENTIFY REPRODUCTIVE GOALS OF CLIENT…….A PROVIDE INFORMATION ABOUT DIFFERENT FP METHODS……..B DISCUSS THE CLIENT'S FP PREFERENCES…...C HELP CLIENT SELECT A SUITABLE METHOD…..D EXPLAIN THE WAY TO USE THE SELECTED METHOD……

		..…E EXPLAIN THE SIDE-EFFECTS……..F EXPLAIN SPECIFIC MEDICAL REASONS TO RETURN……..……..G REQUEST FOR CLIENT TO PROVIDE ANOTHER PERSON'S CONSENT…….……H EXPLAIN WHEN TO RETURN FOR FOLLOW-UP...I OTHERS_____ ___X (SPECIFY)	

Q19.	**CHECK Q15A:** PROVIDE METHODS (PILL OF ANY TYPE, IUD, INJECTABLE, OR IMPLANTS: Q15a (1)=1 OR Q15a (2)=1 OR Q15a (3)=1 OR Q15b (7)=1 OR Q15a (8)=1)	DOES NOT PROVIDE HORMONAL METHODS → (ALL OF THE FOLLOWING EQUAL "2" OR ARE SKIPPED: Q15a(1), Q15a(2), Q15a(3), Q15a(7), Q15a(8)	**Q21**

Q20.	What do you do for a new client who wants to use either a pill, injectable,IUD or implant, but is not having her menses? **DO NOT READ OPTIONS** PROBE WITH "Anything else?" **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.** IF THEY SAY "I USE CHECK LIST", ASK TO SEE THE CHECK LIST AND MATCH WITH THE RESPONSES PROVIDED	SCREEN TO EXCLUDE PREGNANCY…….A EXAMINE TO EXCLUDE PREGNANCY……..…B LAB TEST TO EXCLUDE PREGNANCY…..…….C TELL HER TO COME BACK AT NEXT MENSES...D TRY TO INDUCE MENSES……..…..E SUPPLY CONDOMS UNTIL NEXT MENSES……...F SUPPLY METHOD IF REASONABLY CERTAIN SHE IS NOT PREGNANT……..……..G SUPPLY HORMONAL METHOD AND CONDOMS, ASK HER TO USE CONDOMS UNTIL NEXT MENSES……..……..H JUST GIVE HORMONAL METHOD……..…I	

		REQUEST FOR PARTNER'S CONSENT……J OTHER_____ .X (SPECIFY)	
Q21.	Which kind of personal and financial records do you complete each time you provide a client with family planning services? **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	NO RECORD KEPT……...Y A CLIENT RECORD CARD/FORM……....A AN ENTRY IN THE FP REGISTER….....B AN ENTRY IN THE FACILITY LOGBOOK/ REGISTER…….……. C INFORMAL NOTES IN A NOTEBOOK……..D A PAYMENT RECEIPT IF A FEE IS INVOLVED…..E OTHER _____X (SPECIFY)	

INTEGRATION OF FAMILY PLANNING WITH OTHER SERVICES			
Q22.	Which other services do you provide to clients at this health facility? **READ THE OPTIONS**. **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	ANTE-NATAL CARE……A DELIVERY SERVICES……..B POST-NATAL CARE…….....C POST-ABORTION CARE……..D CHILD IMMUNIZATION ..……E CHILD GROWTH MONITORING……..…F OTHER CURATIVE SERVICES FOR WOMEN……G OTHER CURATIVE SERVICES FOR CHILDREN…...H HIV/AIDS MANAGEMENT……I PMTCT……J VCT……..K NONE OF THESE……..Y →	**Q65**
Q23.	**CHECK Q22:** IF OPTION A (ANTENATAL CARE) IS CIRCLED ☐ ↓	IF OPTION A (ANTENATAL CARE) IS **NOT** CIRCLED ☐ →	**Q29**
Q24.	During Antenatal care, do you provide information about FP routinely?	YES.....1 NO.....2 →	**Q27**

Q25.	What do you do/tell the client when COUNSELING about FP during antenatal care? PROBE: "ANYTHING ELSE?" **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	ENCOURAGE WOMEN TO WAIT FOR SOME TIME BEFORE THE NEXT PREGNANCY OR LIMIT COMPLETELY CHILDBEARING……..A INFORM ABOUT THE IMPORTANCE OF USING FP AFTER DELIVERY POSTPARTUM……B PROVIDE INFORMATION ON THE VARIOUS FP METHODS……C EXPLAIN SPECIFIC MEDICAL REASONS TO RETURN……D HELP THE WOMAN SELECT A SUITABLE METHOD FOR POST-DELIVERY……E PROVIDE INFORMATION ON LAM……F EXPLAIN SIDE-EFFECTS……G REQUEST FOR PARTNER'S CONSENT……H OTHERS: _____ X (SPECIFY)	
Q26.	Do you tell women where they can obtain an FP method after delivery?	YES.....1 NO.....2 →	**All skip to Q29**
Q27.	Why are you not able to provide FP information routinely during antenatal care visits? **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	OVERLOAD OF WORK/NO TIME TO DISCUSS……A NO NEED TO……B LACK OF INTEREST ON THE PART OF CLIENT……C FREQUENT STOCK OUT OF COMMODITIES ……D AVAILABLE CONTRACEPTIVES OFTEN PAST EXPIRATION DATE……E LACK OF EQUIPMENT/STERILE EQUIPMENT……F LACK OF FUNCTIONAL EQUIPMENT ……G NO INTEREST IN PROVIDING FP INFORMATION……H LACK OF KNOWLEDGE ABOUT FP……I INADEQUATE TRAINING……J NOT A PROFITABLE SERVICE TO PROVIDE……K LACK OF JOB-AIDS……L LACK OF IEC MATERIALS FOR CLIENTS……M OTHERS_____ __X (SPECIFY)	
Q28.	Would you be willing to include family planning information routinely in your antenatal care services/visits?	YES.....1 NO.....2	

Q29.	**CHECK Q22:** IF OPTION B (DELIVERY Services) IS CIRCLED ☐	IF OPTION B (DELIVERY CARE) IS **NOT** CIRCLED ☐ →	**Q35**
Q30.	During delivery care (anytime before they are discharged from your facility), do you provide information about FP routinely?	YES.....1 NO.....2 →	**Q33**
Q31.	What do you do/tell the client when COUNSELING about FP during delivery SERVICES? PROBE: "ANYTHING ELSE?" **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	ENCOURAGE WOMEN TO WAIT FOR SOME TIME BEFORE THE NEXT PREGNANCY OR LIMIT COMPLETELY CHILDBEARING… ……A INFORM ABOUT THE IMPORTANCE OF USING FP AFTER DELIVERY POSTPARTUM……B PROVIDE INFORMATION ON THE VARIOUS FP METHODS……C EXPLAIN SPECIFIC MEDICAL REASONS TO RETURN ..D HELP THE WOMAN SELECT A SUITABLE METHOD FOR POST-DELIVERY……...E PROVIDE INFORMATION ON LAM……..…F EXPLAIN SIDE-EFFECTS……..G REQUEST FOR PARTNER'S CONSENT……..…H OTHERS: _____ X (SPECIFY)	
Q32.	Do you tell women where they can obtain an FP method during delivery care?	YES.....1 NO.....2 } →	**All skip to Q35**

Q33.	Why are you not able to provide FP information routinely during delivery care? PROBE: "ANYTHING ELSE?" **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	OVERLOAD OF WORK/NO TIME TO DISCUSS……..A NO NEED TO……B LACK OF INTEREST ON THE PART OF CLIENT…..…… C FREQUENT STOCK OUT OF COMMODITIES …..…….D AVAILABLE CONTRACEPTIVES OFTEN PAST EXPIRATION DATE……...……..E LACK OF EQUIPMENT/STERILE EQUIPMENT……..F LACK OF FUNCTIONAL EQUIPMENT ……..G NO INTEREST IN PROVIDING FP INFORMATION…….....H LACK OF KNOWLEDGE ABOUT FP…….....I INADEQUATE TRAINING……..…J NOT A PROFITABLE SERVICE TO PROVIDE……..K LACK OF JOB-AIDS……L LACK OF IEC MATERIALS FOR CLIENTS……M OTHERS_____ __X (SPECIFY)	
Q34.	Would you be willing to include family planning information routinely in your delivery care services?	YES.....1 NO.....2	
Q35.	**CHECK Q22:** IF OPTION C (POST-NATAL CARE) IS CIRCLED ☐	IF OPTION C (POST-NATAL CARE) IS **NOT** CIRCLED ☐ →	**Q41**
Q36.	During post-natal care visits, do you provide information about FP routinely?	YES.....1 NO.....2 →	**Q39**
Q37.	What do you do/tell the client when talking about FP during post-natal care visits? PROBE: "ANYTHING ELSE?" **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	HELP SELECT SUITABLE FP METHOD BY 40 DAYS POSTPARTUM……A PROVIDE INFORMATION ON LAM……B EXPLAIN SIDE-EFFECTS……C EXPLAIN SPECIFIC MEDICAL REASONS TO RETURN…… D ENCOURAGE WOMEN TO WAIT SOME TIME BEFORE THE NEXT PREGNANCY……..E REQUEST FOR PARTNER'S CONSENT……F OTHER_____ X (SPECIFY)	
Q38.	Do you tell women where they can obtain an FP method during post-natal care visits?	YES.....1 NO.....2 →	**All skip to Q41**

Q39.	Why are you not able to provide FP information routinely during post-natal care visits? PROBE: "ANYTHING ELSE?" **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	OVERLOAD OF WORK/NO TIME TO DISCUSS……..A NO NEED TO……B LACK OF INTEREST ON THE PART OF CLIENT…..…… C FREQUENT STOCK OUT OF COMMODITIES …..…….D AVAILABLE CONTRACEPTIVES OFTEN PAST EXPIRATION DATE……...……..E LACK OF EQUIPMENT/STERILE EQUIPMENT……..F LACK OF FUNCTIONAL EQUIPMENT ……..G NO INTEREST IN PROVIDING FP INFORMATION…….....H LACK OF KNOWLEDGE ABOUT FP…….....I INADEQUATE TRAINING……..…J NOT A PROFITABLE SERVICE TO PROVIDE……..K LACK OF JOB-AIDS……L LACK OF IEC MATERIALS FOR CLIENTS……M OTHERS_____ __X (SPECIFY)	
Q40.	Would you be willing to include family planning information routinely in your post natal services?	YES.....1 NO.....2	
Q41.	**CHECK Q22:** IF OPTION D (POST-ABORTION CARE) IS CIRCLED ☐ ↓	IF OPTION D (POST-ABORTION CARE) IS **NOT** CIRCLED ☐ →	**Q47**
Q42.	During a post abortion care, do you provide information about FP routinely?	YES.....1 NO……..……..2 →	**Q45**

Q43.	What do/tell the client when talking about FP during post abortion care visits? PROBE: "ANYTHING ELSE?" **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	IDENTIFY REPRODUCTIVE GOALS OF WOMAN.....A PROVIDE INFORMATION ABOUT DIFFERENT FP METHODS……..……..…… .B DISCUSS THE CLIENT'S FP PREFERENCES……..….C HELP WOMEN SELECT A SUITABLE METHOD……D EDUCATE WOMEN TO USE THE SELECTED METHOD……..…….. E INFORM ABOUT HOW SOON AFTER ABORTION SHE MAY BECOME PREGNANT IF NOT USING CONTRACEPTION…….…….....F EXPLAIN SIDE-EFFECTS…….……..G EXPLAIN SPECIFIC MEDICAL REASONS TO RETURN……..……...…….. H REQUEST FOR PARTNER'S CONSENT……..I OTHERS: _____X (SPECIFY)	
Q44.	Do you tell women where they can obtain an FP method when offering post abortion services?	YES.....1 NO.....2 →	**All skip to Q47**
Q45.	Why are you not able to provide FP information routinely during post abortion care visits? PROBE: "ANYTHING ELSE?" **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	OVERLOAD OF WORK/NO TIME TO DISCUSS……..A NO NEED TO…….……B LACK OF INTEREST ON THE PART OF CLIENT…..…… C FREQUENT STOCK OUT OF COMMODITIES …..……D AVAILABLE CONTRACEPTIVES OFTEN PAST EXPIRATION DATE……...……E LACK OF EQUIPMENT/STERILE EQUIPMENT……..F LACK OF FUNCTIONAL EQUIPMENT ……..G NO INTEREST IN PROVIDING FP INFORMATION…….....H LACK OF KNOWLEDGE ABOUT FP…….…….....I INADEQUATE TRAINING……..…J NOT A PROFITABLE SERVICE TO PROVIDE……..K LACK OF JOB-AIDS……L LACK OF IEC MATERIALS FOR CLIENTS……M OTHERS_____ __X (SPECIFY)	

Q46.	Would you be willing to include family planning information routinely in your post abortion care services/visits?	YES.....1 NO.....2	
Q47.	**CHECK Q22:** IF **EITHER** OPTION E (CHILD IMMUNIZATION) OR OPTION F (CHILD GROWTH MONITORING) IS CIRCLED	IF **NEITHER** OPTION E (CHILD IMMUNIZATION) **NOR** OPTION F (CHILD GROWTH MONITORING) IS CIRCLED →	**Q53**
Q48.	During <u>child immunization/child growth monitoring</u>, do you provide information about FP routinely?	YES.....1 NO……..2 →	**Q51**
Q49.	What do you do/tell clients when talking about FP during child immunization or child growth monitoring visits? PROBE: "ANYTHING ELSE?" **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	IDENTIFY REPRODUCTIVE GOALS OF WOMAN.....A PROVIDE INFORMATION ABOUT DIFFERENT FP METHODS…….B DISCUSS THE CLIENT'S FP PREFERENCES……C HELP WOMEN SELECT A SUITABLE METHOD…….D EDUCATE WOMEN TO USE THE SELECTED METHOD……..…E EXPLAIN SIDE-EFFECTS……..……F EXPLAIN SPECIFIC MEDICAL REASONS TO RETURN……...…...G REQUEST FOR PARTNER'S CONSENT……..H OTHERS: _____ X (SPECIFY)	
Q50.	Do you tell women where they can obtain an FP method?	Yes.....1 No.....2 →	**All skip to Q53**
Q51.	Why are you not able to provide FP information routinely? PROBE: "ANYTHING ELSE?" **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	OVERLOAD OF WORK/NO TIME TO DISCUSS……A NO NEED TO……B LACK OF INTEREST ON THE PART OF CLIENT…… C FREQUENT STOCK OUT OF COMMODITIES …..……D AVAILABLE CONTRACEPTIVES OFTEN PAST EXPIRATION DATE……...……E LACK OF EQUIPMENT/STERILE EQUIPMENT……..F LACK OF FUNCTIONAL EQUIPMENT ……..G NO INTEREST IN PROVIDING FP INFORMATION…….....H LACK OF KNOWLEDGE ABOUT FP…….……...I INADEQUATE TRAINING……..…J NOT A PROFITABLE SERVICE TO PROVIDE……..K LACK OF JOB-AIDS……L LACK OF IEC MATERIALS FOR CLIENTS……M OTHERS_____ __X (SPECIFY)	.

Q52.	Would you be willing to include family planning information routinely in your child immunization or child growth monitoring visits?	YES.....1 NO.....2	
Q53.	**CHECK Q22**: IF **EITHER** OPTION G (CURATIVE SERVICES FOR WOMEN) OR H (CURATIVE SERVICES FOR CHILDREN) IS CIRCLED	IF **NEITHER** OPTION G (CURATIVE SERVICES FOR WOMEN) **NOR** H (CURATIVE SERVICES FOR CHILDREN) IS CIRCLED → **Q59**	
Q54.	While providing curative services to women or children, do you provide information on FP routinely?	YES.....1 NO.....2 → **Q57**	
Q55.	What are the main topics you discuss when talking about FP to clients? PROBE: "ANYTHING ELSE?" **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	IDENTIFY REPRODUCTIVE GOALS OF WOMAN.....A PROVIDE INFORMATION ABOUT DIFFERENT FP METHODS……B DISCUSS THE CLIENT'S FP PREFERENCES……C HELP WOMEN SELECT A SUITABLE METHOD…….D EDUCATE WOMEN TO USE THE SELECTED METHOD……..…E EXPLAIN SIDE-EFFECTS……..…..…F EXPLAIN SPECIFIC MEDICAL REASONS TO RETURN……..…...G REQUEST FOR PARTNER'S CONSENT……..H OTHERS: _____ X (SPECIFY)	
Q56.	Do you tell women where they can obtain an FP method?	YES.....1 NO.....2 → **All skip to Q59**	
Q57.	Why are you not able to provide FP information routinely? PROBE: "ANYTHING ELSE?" **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	OVERLOAD OF WORK/NO TIME TO DISCUSS……..A NO NEED TO……B LACK OF INTEREST ON THE PART OF CLIENT…….C FREQUENT STOCK OUT OF COMMODITIES ….……D AVAILABLE CONTRACEPTIVES OFTEN PAST EXPIRATION DATE……..……..E LACK OF EQUIPMENT/STERILE EQUIPMENT……..F LACK OF FUNCTIONAL EQUIPMENT ……..G NO INTEREST IN PROVIDING FP INFORMATION……....H LACK OF KNOWLEDGE ABOUT FP…….…….....I INADEQUATE TRAINING……..…J NOT A PROFITABLE SERVICE TO PROVIDE……..K LACK OF JOB-AIDS……L LACK OF IEC MATERIALS FOR CLIENTS……M OTHERS_____ __X (SPECIFY)	

Q58.	Would you be willing to include family planning information routinely in your curative care services/visits for women or children?	YES.....1 NO.....2	
Q59.	**CHECK Q22:** IF **ANY** OF THE OPTIONS I (HIV/AIDS MANAGEMENT), OPTION J (PMTCT), OR K (VCT) ARE CIRCLED ☐	IF **NONE** OF THE OPTIONS I (HIV/AIDS MANAGEMENT), OPTION J (PMTCT), OR K (VCT) ARE CIRCLED ☐ →	**Q65**
Q60.	While providing HIV-related services (HIV/AIDS management, PMTCT, and/or VCT) to women and men, do you provide information on FP routinely?	YES.....1 NO.....2 →	**Q63**
Q61.	What are the main activities you follow when talking about FP to clients? PROBE: "ANYTHING ELSE?" **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	IDENTIFY REPRODUCTIVE GOALS OF WOMAN……...A PROVIDE INFORMATION ABOUT DIFFERENT FP METHODS…… B DISCUSS THE CLIENT'S FP PREFERENCES……...C HELP WOMEN SELECT A SUITABLE METHOD……D EDUCATE WOMEN TO USE THE SELECTED METHOD…….. E EXPLAIN SIDE-EFFECTS……..F EXPLAIN SPECIFIC MEDICAL REASONS TO RETURN…… G DISCUSS HIV/AIDS PREVENTION METHODS……..H DISCUSS METHODS NOT RECOMMENDED FOR HIV POSITIVE (LAM, IUD)……I RECOMMEND ALWAYS USE CONDOM IN ADDITION TO OTHER FP METHODS……J REQUEST FOR PARTNER'S CONSENT…….....K OTHERS: _____ ____X (SPECIFY)	
Q62.	Do you tell women where they can obtain an FP method?	YES.....1 NO.....2 →	**All skip to Q65**

Q63.	Why are you not able to provide FP information routinely? PROBE: "ANYTHING ELSE?" **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.** .	OVERLOAD OF WORK/NO TIME TO DISCUSS……..A NO NEED TO……B LACK OF INTEREST ON THE PART OF CLIENT…… C FREQUENT STOCK OUT OF COMMODITIES …..…….D AVAILABLE CONTRACEPTIVES OFTEN PAST EXPIRATION DATE……...……..E LACK OF EQUIPMENT/STERILE EQUIPMENT……..F LACK OF FUNCTIONAL EQUIPMENT ……..G NO INTEREST IN PROVIDING FP INFORMATION……....H LACK OF KNOWLEDGE ABOUT FP……...I INADEQUATE TRAINING……..J NOT A PROFITABLE SERVICE TO PROVIDE……..K LACK OF JOB-AIDS……L LACK OF IEC MATERIALS FOR CLIENTS……M OTHERS_____ __X (SPECIFY)	
Q64.	Would you be willing to include family planning information routinely in your HIV-related services/visits for women and men?	YES.....1 NO.....2	

ICT Now, I would like to ask you some questions about IC			
Q65.	Do you own a mobile phone?	YES.....1 NO.....2	
Q66.	How often do you use the internet on a computer?	NOT AT ALL.....1 NOT VERY FREQUENTLY.....2 FREQUENTLY.....3 VERY FREQUENTLY.....4	
Q67.	How often do you use a computer for basic tasks such as word processing or data analysis?	NOT AT ALL.....1 NOT VERY FREQUENTLY.....2 FREQUENTLY.....3 VERY FREQUENTLY.....4	
Q68.	RECORD THE TIME IN 24 HOUR FORMAT	HOUR …… ☐☐ …….. ☐☐	
Thank you very much for taking the time to answer my questions. Once again, any information you have given will be kept completely confidential. Have a good day!			
COMMENTS			

MLE Measurement, Learning & Evaluation Project for the Urban Reproductive Health Initiative

Women Exit Interview for Family Planning Clients – Kenya 2012 (Eng-Dholuo)

CITY NAME & CODE ___Kisumu_____ (Nairobi=1, Mombasa=2, Kisumu =3, Machakos=4, Kakamega=5) FACILITY NAME AND CODE _____ ___ (obtained from health facility survey) QUESTIONNAIRE IDENTIFICATION (OFFICE USE ONLY) PROVIDER NAME & CODE FROM THE FACILITY AUDIT LIST – Q7D _____ WAS THIS CLIENT OBSERVED BY A THIRD PARTY?	**[3]** [___|___|___|___|___| (City code+ fac type + Fac ID; [___|___|___|___|___|___|___] **(Facility ID + respondent #)** [___|___] **YES / NO**

TYPE OF HEALTH FACILITY

PUBLIC SECTOR
GOVT. NATIONAL/PROVINCIAL REFERAL HOSPITAL. ……11
GOVT. DISTRICT HOSPITAL……12
GOVT.SUB-DISTRICT HOSPITAL ……13
GOVT. HEALTH CENTRE…… …….14
GOVT. DISPENSARY ……..……..15
OTHER PUBLIC_____ …….18
(SPECIFY)

PRIVATE SECTOR
PRIVATE HOSPITAL……21
PRIVATE CLINIC……..22
NURSING/MATERNITY HOME……..23
OTHER PRIVATE_____ …….24
(SPECIFY)

FBO
MISSION HOSPITAL……3
1
FAITH-BASED HOME/HEALTH CENTRE……
…….32

OTHER NGO HOSPITAL…….. ……..41
OTHER NGO CLINIC…… …….
….42
OTHER
_____
_...96
(SPECIFY)

KISW ENG DHOLUO KIKAMBA
LANGUAGE OF INTERVIEW 1 2 3 4

INTERVIEWER'S VISITS AND RESULTS

INTERVIEWER	INTERVIEWER RESULT	INTERVIEW DATE
NAME _____ ____ ☐☐☐	Completed . . . . .1 Incomplete…… ……..2 Refused . . . . .3 Other _____ __6	Day ☐☐ Month ☐☐ Year ☐☐☐☐

	(specify)	
SUPERVISOR NAME _____ ___ CODE [____|____] DATE [____/_____/____] DD MM YY	FIELD EDITOR NAME _____ CODE [____|____] DATE [____/_____/____] DD MM YY	KEYED BY NAME _____ CODE [____|____] DATE [____/_____/____] DD MM YY DD MM YY

Female Consent Form: Exit Survey

Purpose of Study

Oboke mar yie mar mine: Penjo ma ogik; Gima omiyo watimo nonro

Hello! My name is _____, I am part of a research team working under Tupange with technical assistance from the Measurement, Learning & Evaluation project. We are carrying out research on family planning and reproductive health in urban areas of Kenya. Your participation in this study will help to improve family planning and reproductive health services in this city. We will be asking questions to women who received services at this facility.

Nadi nyinga en _____, an achiel kuom jotim nonro matiyo kod migawo miluongo ni 'Tupange' ma be tiyo kachiel gi 'Measurement, Learning & Evaluation project'. Watimo nonro kuom komo nyuol kod ngima mar nyuol e bombe ma Kenya. Bedo achiel kuom jogo mabiro bedo e nonroni biro keto maber yore mag komo nyuol kod ngima mar nyuol e bomani. Wabiro penjo mine mayudo ga kony e kar thieth ma ka penjo moko.

Explanation of Procedures

Yoo ma wabiro tiyogo

We will interview you in a room where you cannot be overheard, to ensure confidentiality. The interview will take about 30 minutes. I will ask you questions about your home, family planning, health-care seeking, and family size decisions. You may choose not to do the interview, or not to answer a question for any reason. You can stop the interview at any time by telling me that you want to stop. If you decide not to do the interview or not to answer a question, no harm will come to you, and there will be no effect on your access to health services today or in the future. I will only interview you once.

Wabiro penji penjo moko e ot ma onge ng'ama nyalo winji mondo waket maling'ling. Penjo biro kawo thuolo maromo dakika piero adek. Abiro penji penjo kuom dalani, yore mag komo nyuol,tiyo kod kuonde thieth kod ng'ado rieko mar kwan mar nyithindo. Inyalo yiero mondo kik iduok penjogi, kata mondo kik iduok penjo moro amora kuom dwaro mari. Inyalo weyo duoko penjo gi saa asaya ka ikona ni mondo kik adhi nyime, ka ok iyie dwoko penjogi kata ka itamori duoko penjo moro amora, onge rach mabiro timoreni, kendo onge rach mabiro timoreni e yudo kony mar thieth sani kata e ndalo mabiro. Penjogi abiro penji mana dichiel kende.

Confidentiality

Maling'ling'

Your answers will not be shared with anyone outside this research project. Your name will not appear on the survey. We will not share answers with community members, health providers, family or anyone else. At the end of the study, we will put all the answers together and make a report.

Duoko magi ok bi nyis ng'ato ang'ata mantiere oko mar nonroni, nyingi ok bi keti e oboke mar nonro, dwoko mari ok wabi nyiso jo gweng', jochiw thieth, anyuola kata ng'ato moro amora.E giko nonroni, wabiro keto duoko tee kanyakla aeto waloso duoko mawayudo.

Who is taking part in this study?

Gin jok mage manyalo bedo e nonroni?

We are interviewing women who visited this facility and received family planning or maternal and child health services, during the study period.

Penjogi wapenjo mine ma obiro limbe kar thieth ma kae kendo oyudo kony mar komo nyuol kata kony mar nyithindo matindo e kinde ma watimo nonroni.

Benefits

Ber

Research helps society by providing new knowledge. You may not benefit directly from this survey. However, your answers will be important for planning better programs to make sure women can access the health care they need.

Nonro konyo oganda gi rieko manyien. Onge ber ma ibiro neno in iwuon. Makmana ni duoko meki biro konyo maduong' e chano migawo mamoko mabiro neno ni mon duto yudo kony mag thieth magidwaro.

Risks and Discomforts

Rach

There is the possibility you may feel uncomfortable about a question I ask. If you feel uncomfortable about any of the questions, you do not have to answer them. I can skip those questions and go on to the next section. You can end the interview at any time.

There is also the possibility that someone may approach us during the interview to find out what we are discussing. We intend to do this interview in private, if someone approaches us, we will stop the interview until we can continue in private.

Be nyalore ni inyalo winjo marach e wii penjo moko mabiro penjo.Ka iwinjo marach kuom penjo moro amora, ok ochuno ni nyaka iduoki, anyalo kalo penjono to adhi e penjo machielo. Inyalo chungo penjogi saa asaya.

Bende nyalore ni ng'ato nyalo biro irwa sama apenji penjogi mondo ong'e gima wawuoyoe. Wabiro penjo penjogi kama ling'ling', ka ng'ato obiro to wabiro weyo penjo penjogi nyaka wayud thuolo mar dhi nyime kama ling'ling'.

Costs and Payment for Participation

Omuom kod chudo mar bedo e nonroni

There are no costs for being in this study. You will not receive any money for taking part in this study.

Onge chudo mar bedo e nonronni. Ok ibi yudo omuom moro amora kuom chiwori e nonroni.

Questions

Penjo

This study has been approved by the Kenya Medical Research Institute, and the University of North Carolina (USA). If you have any questions about this study or the results, you can contact the following: the study principle investigator at the Measurement, Learning & Evaluation Project, Ms. Tumlinson Kat at +254 0724 827 623, The Secretary, National Ethics Review Committee at Kenya Medical Research Institute, PO Box 54840-00200 Nairobi, Telephone numbers: +254 (020) 2722541, 0722205901, 0733400003, email: ERC@kemri.org; or the Institutional Review Board at the University of North Carolina at +1 919-966-3113. You have the right to ask, and have answered, any questions you may have about this research. If you have questions or concerns, you should contact the researchers listed above, or ask me before or after the interview. Do you have any questions now?

Nonro ni osepuodhi gi kar thieth kod timo nonro ma Kenya-KEMRI, kod Mbalariany ma North Carolina (USA). Ka in kod penjo moro amora mar nonroni kata duoko, inyalo tudori gi jogi: ja chung' ne nonro e migawo miluongoni 'Measurement, Learning & Evaluation Project' manyinge en Ms. Tumlinson Kat e nambani +254 0724 827 623, Ja goro mar,jobura mochung' ne chike mag nonro mantiere kar thieth kod timo nonro ma Kenya e PO Box 54840-00200 Nairobi, +254 (020) 2722541, 0722205901, 0733400003, ERC@kemri.org; kata jochung' ne chike mag nonro e Mbalariany ma North Carolina e +1 919-966-3113. Intiere gi ratiro mar penjo, yudo dwoko, mar penjo moro amora ma intiere godo kuom nonroni. Ka intiere kod penjo moro amora, tudri kod jo tim nonro manyinge gi nitie malo, kata penja ka podi kata bang' duoko penjogi. Be intie gi penjo moro amora sani?

Consent
Yie

Now, can you tell me if you agree to participate in this research? If you say yes, it means that you have agreed to be part of the study.

Koro, be inyalo kona ka iyie bedo e nonroni? Ka iwacho ni Ee to mano nyiso ni iyie bedo e nonroni.

†Ee†Ooyo

Would you like a copy of this document?

Be diher bedo gi oboke machalo gi ma?

Seyi mar japenj penjo: _____

Tarik: _____

PARTICIPANT ELIGIBILITY/SCREENING QUESTIONS			
No.	**Questions**	**Coding**	**Skip**
Q1.	Did you see a provider today for **family planning** services? Ne ineno ja chiw thieth kawuono kuom kony mar thieth?	YES……..……1 NO……2 →	**END INTERVIEW**
Q2.	How old were you at your last birthday? Ne in gi higni adi e chieng' nyuolni ma okallo?	AGE IN YEARS	**STOP IF YOUNGER THAN 15 OR OLDER THAN 49**

INFORMATION ABOUT VISIT			
	QUESTIONS	**CODING**	**SKIP/NOTES**
Q3.	RECORD THE TIME THE INTERVIEW STARTED [24-HOUR TIME]		
Now I would like to talk to you about the health services for which you had come today to this facility. Koro daher wuoyo kodi kuom kony mege thieth ma ibiro yudo kar thieth ma ka.			
Q4.	What was the <u>main service</u> that you came for today? En kony mane mane ibiro yudo kawuono?	FAMILY PLANNING----------01 ANTENATAL CARE---------- 02 DELIVERY SERVICES ---------- 03 POSTNATAL CARE ---------- 04 POST-ABORTION CARE ----------05 GROWTH MONITORING---------- 06 CHILD IMMUNIZATION ---------- 07 STI MANAGEMENT ----------08 HIV/AIDS MANAGEMENT ---------- 09 CURATIVE SERVICES ---------- 10 HIV TESTING AND COUNSELLING ---- 11 OTHER _____ 96 (SPECIFY)	
Q5.	Before today's visit, what are all of the things you have ever done or methods you have used to prevent a pregnancy? Mopogre gi bironi ma kawuono, gin gik mage ma isegatimo kata yore ma isetiyo godo mege komo nyuol? **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	DAILY PILL …..……A MALE CONDOM . . . . . ……. B FEMALE CONDOM . .. . . …. . . ……C IUD……... . . . . ……. …… D INJECTABLES.. . . . . ……E IMPLANT . . . . ……F NATURAL METHODS (STANDARD DAYS/CYCLE BEADS/ WITHDRAWAL) ……..……..G BREASTFEEDING/LAM ... . ……H MALE STERILIZATION . . . . . ……..I FEMALE STERILIZATION…….. ……J EMERGENCY CONTRACEPTION .. . . K OTHER _____X (SPECIFY) NONE……Y →	**Q13**
Q6.	Were you using any FP method the last time you had sex? Be ne itiyo kod yoo moro amora mar komo nyuol e kinde ma nene uriwore achiel e ringruok?	Yes ..... 1 No 2	

Q7.	Before today's visit, when was the last time you used a family planning method to avoid a pregnancy? Ma opogre gi bironi ma kawuono, nene itiyo kod yor komo nyuolmogik karang'o mondo kik imak ich?	CURRENTLY ON HORMONAL (PILL, INJECTABLE, IUCD, IMPLANT) OR STERLIZATION USER……1 WITHIN THE PAST WEEK……2 1-3 WEEKS AGO……...3 1-3 MONTHS AGO……..….4 4-6 MONTHS AGO……5 7 MONTHS -11 MONTHS AGO……..……6 MORE THAN 1 YEAR AGO……7	
Q8.	Which method(s) were you using? En yoo mane (yore mage) ma nene itiyo go? **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	DAILY PILL ……A MALE CONDOM . . . . . B FEMALE CONDOM . .. . . …. . . ……C IUD……... . . . . …… D INJECTABLES.. . . . . ……E IMPLANT . . . . . ……F NATURAL METHODS (STANDARD DAYS/CYCLE BEADS/ WITHDRAWAL) ……..……G BREASTFEEDING/LAM ... . ……H MALE STERILIZATION . . . . . ……..I FEMALE STERILIZATION…….. ……J EMERGENCY CONTRACEPTION .. . . K OTHER _____X (SPECIFY)	
Q9.	What was the <u>main purpose</u> of coming for a family planning visit today? En ang'o maduong' ma omiyo ne ibiro ne kony mar komo nyuol kawuono. **READ OUT THE RESPONSES**	RESUPPLY OF CONTRACEPTIVE……01 SWITCH TO A DIFFERENT METHOD……02 STOP CONTRACEPTIVE……03 SCHEDULED FOLLOW-UP APPOINTMENT…….. 04 RESTART CONTRACEPTIVE...……05 NON-APPOINTMENT VISIT ……06 OTHER _____96 (SPECIFY)	

Q10. CHECK Q7 LAST TIME USED FP

IF Q7=1,2,3,4 ☐↓ IF Q7=5,6,OR 7 ☐ → **Q13**

Q11. During your consultation today, did the provider: E limbe makawuono, be jachiw thieth ne:…….	**YES**	**NO**	**DON'T KNOW**
a. Ask the reason for your visit? Openji gima omiyo ibiro?	1	2	8

b. Ask specifically about any problems you were having (or have had) with the method you were using before this visit? Openji pek ma in godo (kata ma isebedogo) kod yoo ma ne itiyogo kapodi ok ibiro kawuono?	1	2	8
c. Suggest any action(s) to resolve the problem? Chiwo yoo (yore) moro amora mar tieko pek ni?	1	2	8
d. Ask your reproductive goal? *(Ask how many children would like to have and when)* Penji dwachi e ngimani mar nyuol?	1	2	8
e. Provide information about different FP methods? Toa Mii rieko mge yore ma opogre opogre mege komo nyuol?	1	2	8
f. Ask about any other method of FP you would prefer? Penji yoo moro amora mar komo nyuol madiher?	1	2	8
g. Talk about side effects with method you were using before this visit? Wuoyo kodi kuom pek ma inyalo yudo ka itiyo gi yoo ma nene itiyogo ka podi ok ibiro e bironi ma sani?	1	2	8
h. Tell you when to return for follow-up? Nyisi chieng' duogo kar thieth?	1	2	8

Q12.	Did you decide to continue the same method, stop using method, or change to a different method? Ne ing'ado rieko mar dhi mbele kod yoo ma itiyogo, weyo yoo ma itiyogo kata chako tiyo gi yoo machielo?	CONTINUE WITH SAME METHOD……1 CHANGE METHOD …….....2 STOP USING METHOD (DUE TO PROBLEMS)…….....3 STOP USING METHOD (ELECTIVE-NO PROBLEMS)……....4 OTHERS (SPECIFY)_____6	→ **Q16** **Q13e** → → **Q35**

NEW ACCEPTOR / DROP OUT CLIENTS			
Q13. During your consultation today, did the provider: E limbe ni ma kawuono , be jachiw thieth ne:	**YES**	**NO**	**DON'T KNOW**
a. Ask the reason for your visit? Openji gima omiyo ibiro?	1	2	8
b. Ask your reproductive goal? *(Ask how many children would like to have and when)* Penji dwachi e ngimani mar nyuol?	1	2	8
c. Provide information about different FP methods? Miyi puonj kuom yore ma opogre opogre mag komo nyuol mantiere	1	2	8
d. Ask about your METHOD OF CHOICE? Penji yoo ma ihero?	1	2	8
e. Help you select a (another) method? Konyi yiero (yoo machielo)	1	2	8
f. Explain how the method works, by this I mean how to use this method? Nyisi kaka yorno tiyo, kata kaka itiyo kod yorni?	1	2	8
g. Talk about possible side effects? Wuoyo e wiipek ma inyalo neno?	1	2	8

h. Tell you what to do if you have any problems? Nyisi gima inya timo ka iyudo pek moro amora?	1	2	8
i. Tell you when to return for follow-up? Nyisi chieng' ma iduogo mondo oneni?	1	2	8

Q14.	Did you know what family planning method you wanted to use before you came here today during your visit? Be ne ing'eyo yor komo nyuol ma idwa tiyogo ka podi ok ibiro e kar thieth kawuono?	YES . . . . . 1 NO . . . . . 2 →	**Q16**
Q15.	What method was that? Ne en yoo mane? MULTIPLE RESPONSES POSSIBLE. CIRCLE ALL MENTIONED.	DAILY PILL ……A MALE CONDOM . . . . . B FEMALE CONDOM . .. . …. . ……C IUD……... . . . . …… D INJECTABLES.. . . . . E IMPLANT . . . . . F NATURAL METHODS (STANDARD DAYS/CYCLE BEADS/ WITHDRAWAL) ……G BREASTFEEDING/LAM ... . H MALE STERILIZATION . . . . . I FEMALE STERILIZATION…….. ……J EMERGENCY CONTRACEPTION .. . . .K OTHER _____X (SPECIFY)	
Q16.	Did you get a contraceptive method today? Be ne iyudo yor komo nyuol kawuono?	YES ..... 1 → NO 2	**Q18**
Q17	Did you receive a referral, or prescription for a family planning method today? Be ne iyudo oboke mar oote kata mar andike mar yath e yor komo nyuol kamano?	YES, RECEIVED REFERRAL……....1 YES, RECEIVED PRESCRIPTION……..…2 NO, DID NOT RECEIVE ANYTHING……3 ALREADY USING…….4	**Q35**

Q18.	(For) What method(s)? (Mag) yo mane/yore mage? MULTIPLE RESPONSES POSSIBLE. CIRCLE ALL MENTIONED.	DAILY PILL ……A MALE CONDOM . . . . . B FEMALE CONDOM . .. . . …. . . ……...C IUD……... . . . . . …. ……..…. D INJECTABLES.. . . . . ..……E IMPLANT . . . .……F NATURAL METHODS (STANDARD DAYS/CYCLE BEADS/ WITHDRAWAL) ……G BREASTFEEDING/LAM . . . ……..……H FEMALE STERILIZATION… ……I EMERGENCY CONTRACEPTION . . . ….. J OTHER _____X (SPECIFY)	**ALL SKIP TO Q35**

Questions 19 through 34 have been removed for this survey. Please proceed to question 35, on the next page.

INFORMATION ABOUT CLIENT'S SATISFACTION			
	QUESTIONS	**CODING**	**SKIP**
I would like to begin by asking you some questions about the services you received today. Please refer to the provider that provided you with the most information during your visit. The provider will not learn of your responses, so please be honest. This information will help improve family planning services. Adwa chako kod penji penjo mege kony ma iyudo kawuono.Ka iyie to ful ja chiw thieth ma ne omii ppuonj mang'eny e limbe makawuono. Jachiw tthieth no ok bi ng'eyo duoko magi, koro nyisa adieri. Weche gi biro konyo e keto maber yore mege komo nyuol.			
Q35.	In addition to the family planning services you received, did you receive any other health services from the service provider today? Ewii yore komo nyuol mane iyudo, be ne iyudo kony moro mar thieth kuom jachiw thieth kawuono?	YES . . . . . 1 NO . . . . . 2 →	**Q37**
Q36.	What other services did you receive? Gin kony mage kendo ma ne iyudo? **DO NOT READ LIST.** **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	ANTENATAL CARE . . . . . A DELIVERY SERVICES . . . . . B POSTNATAL CARE . . . . . C GROWTH MONITORING . . . . . D STI MANAGEMENT . . . . . E HIV/AIDS MANAGEMENT . . . . . F CURATIVE SERVICES . . . . . G NUTRITION SERVICES/INFORMATION. . . . . H CHILD IMMUNIZATION . . . . . I POST-ABORTION CARE. . . . . J VCT . . . . . K OTHER HEALTH SERVICES: _____ X	
Q37.	About how long did you wait between the time you first arrived at this facility and the time you saw staff for a consultation? Ne ikawo thuolo maromo nadi kapodi irito neno jachiw thieth e saa mane idonjo e kar thieth ma ka?	<15 MINUTES . . . . . 1 16-30 MINUTES . . . . . 2 31-45 MINUTES . . . . . 3 46-60 MINUTES . . . . . 4 61-90 MINUTES . . . . . 5 91-120 MINUTES . . . . . 6 >120 MINUTES . . . . . 7 DON'T KNOW 8	
Q38.	Do you feel that your waiting time was reasonable or too long? Iparo ni ne irito kuom thuolo ma oromo koso malach?	NO WAITING TIME;WAS SEEN IMMEDIATELY . . . . . 1 REASONABLE AMOUNT OF TIME . . . . . 2 TOO LONG . . . . . 3 DON'T KNOW 8	
Q39	When meeting with the provider during your visit, do you think other clients could <u>see</u> you? Mane iromo kod jachiw thieth e limbe, ne iparo ni jok moko ma obiro kar thieth biro neni?	YES . . . . . 1 NO 2	
Q40.	When meeting with the provider during your visit, do you think other clients could hear <u>what you and the provider discussed</u>? Ma ne iromo kod jachiw thieth e limbe, ne iparo ni jok moko ma be obiro nyalo winjo gik ma iwacho?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
Q41.	Did you feel comfortable to ask questions during this visit? Ne iwino ka in thuolo mar penjo penjo ma intiere godo e limbeni?	YES . . . . . 1 NO 2	

Q42.	Did the provider ask you if you had any questions? Be ne jachiw thieth openji ka in gi penjo moro amora?	YES . . . . . 1 NO 2	
Q43.	Did the provider answer all of your questions? Be jachiw thieth ne oduoko penjo nit e?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW /REMEMBER. 8	
Q44.	Do you believe that the information that you shared about yourself with the provider will be kept confidential?Be in kod yie ni weche ma koka kori ma ne ifulo ni jachiw thieth ibiro keto maling'ling'	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
Q45.	During your visit, how were you treated by the **provider**? "very well", "well" or poorly?" *Elimbe ni, **jachiw thieth** ne oneni nadi?? "maber ahinya", "maberl" kata marach?"*	VERY WELL . . . . . 1 WELL . . . . . 2 POORLY. 3	
Q46.	During your visit, how were you treated by the **other staff**? Would you say you were treated "very well", "well" or "poorly?" *E limbe ni, ne oneni nadi kod **jochiw thieth mamoko?** Inya wacho ni ne oneni" "maber" kata "marach?"*	VERY WELL . . . . . 1 WELL . . . . . 2 POORLY . . . . . 3 THERE WAS NO OTHER STAFF. . . . 4	
Q47.	Did you feel the information given to you during your visit today was not enough, enough or too much? Ne iwinjo ni puonj ma ne omii e limbe makawuono ne ok oromo, oromo kose ng'eny ahinya?	NOT ENOUGH. . . . . 1 ENOUGH. . . . . 2 TOO MUCH. . . . . 3 DON'T KNOW. 8	
Q48.	Were you highly satisfied, satisfied, somewhat satisfied or not at all satisfied with your services at the facility today? Be ne in gi romo ahinya, romo, romo matin kata ok in giromo ahinya kod kony ma iyudo kar thieth ka kawuono?	HIGHLY SATISFIED . . . . . 1 SATISFIED. . . . . 2 SOMEWHAT SATISFIED . . . . . 3 NOT AT ALL SATISFIED. 4	
Q49.	Will you use this facility for health care services in the future? Ibiro tiyo gi kar thieth ni kuom kony mege thieth e ndalo mabiro?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW. 8	
Q50.	Will you recommend this facility to family/friends/neighbors? Be inyalo wacho ni anyuolani/osiepegi/jirani mondo obii e kar thieth ma ka?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW. 8	
Q51.	CHECK Q4 SERVICE RECEIVED AND Q26 RECEIVING FP INFORMATION: IF Q4 = 01 FOR FP ☐ IF Q4 = ANYTHING OTHER THAN 01 ☐ → **Q54**		

Q52.	Did the providers show you any printed informational (IEC) materials on family planning during their discussion with you? Be jochiw kony ne onyisi oboke moro mangi puonj (oboke mar IEC) mege komo nyuol e saa ma ne uwuyo kanyakla?	YES . . . . . .1 NO 2	
Q53.	Were you given any printed informational (IEC) materials on family planning to take away with you during your visit? Be ne omii oboke moro (oboke mar IEC) ma ondikie weche kuom komo nyuol mondo idhi godo e limbeni?	YES . . . . . .1 NO 2	
Q54.	Now I would like to ask you about the cost of your FP service today. What is the total amount you paid for all FP services or treatments you received at this facility today? Please include any money you paid for laboratory tests, supplies, and consultation fee. STATE AMOUNTS IN KES Go kwan mar pesa ma ichulo ne pim mar laboratory, gik ma dwarore, kod mar andike. WACH NI EN PESA ADI MA KENYA	PAID NO MONEY . . . …… 00000 → **Q56** DON'T KNOW . . . . . .…….99998 → **Q56** **=TOTAL AMOUNT** ☐☐☐☐☐	
Q55.	Do you think this amount of money is affordable or not affordable? Iparo ni pesani nyalo chulore kose ok nyalore?	AFFORDABLE……1 NOT AFFORDABLE……2 CANT TELL/DON'T KNOW……8	
Q56.	Do you have insurance or a similar institutional arrangement that pays for some or all of the services you received at this facility? Intiye kod insurance kata mpango machalo kamano machulo moko kata kony duto ma iyudo kar thieth ka?	YES . . . .1 NO . . . . . 2 DON'T KNOW 8	

INFORMATION ABOUT HEALTH FACILITY			
	QUESTIONS	**CODING**	**SKIP**
Now I would like to ask you some questions about your means of transport and access to health care facilities. Koro adwa penji penjo moko kuom yore ni mag woth kod nyalo mari mar tiyo gi kar thieth.			
Q57.	How long did it take you to come here today? Ne okawi thuolo maromo nadi mondo ichop kae kawuono?	☐☐☐ Time in minutes (Don't know = 998)	
Q58.	What was the <u>main means</u> of transport that you used to get here? Ne en <u>yoo mane maduong' mar wuoth</u> ma ne itiyogo mondo ichop kae?	WALK ……01 PUBLIC MATATU/BUS.……02 TAXI……03 BICYCLE ……..……04 TUKTUK……05 MOTORCYCLE/SCOOTER……..…06 PRIVATE VEHICLE…… ….. 07 OTHER _____ 96 (SPECIFY)	

Q59.	Why did you choose this facility for service today? Ang'o momiyo ne iyiero kar thieth ma ka mondo iyud kony makawuono? **PROBE:** Any other reason? Gima omiyo mamoko? **MULTIPLE RESPONSES POSSIBLE. CIRCLE ALL MENTIONED.**	CLOSE TO YOUR HOME……..A CONVENIENT TO YOUR PLACE OF WORK…B CONVENIENT OPERATING HOURS ..……..C YOU CAN REMAIN ANONYMOUS……D GOOD REPUTATION . . . . ..……... ……. E STAFF ARE DISCREET/MAINTAIN CONFIDENTIALITY. ……F IT IS MORE AFFORDABLE …….. …….G WAS REFERRED TO THIS FACILITY . …….H THIS FACILITY IS FAR FROM MY HOME…….J PROVIDE GOOD QUALITY SERVICES……..K THEY PROVIDE DESIRED SERVICES ……..L FACILITY ACCEPTS INSURANCE……..M PROVIDERS TREAT PATIENTS WELL……..…N OTHER(SPECIFY) _____X DON'T KNOW . . ... . ……. . ……..Z	
Q60.	Is this the closest health facility to your place of work? Be ma e kar thieth machiegni ahinya kod kari mar tich?	YES . . . . . 1 NO . . . . . 2 DON'T WORK……..3 DON'T KNOW 8	
Q61.	Is this the **closest** health facility to your home? Be ma e kar thieth **machiegni ahinya** gi dalani?	YES . . . . . 1 → NO . . . . . 2 DON'T KNOW . . . .8 →	**Q64** **Q64**
Q62.	Which is the closest type of facility to your home? En aina mane mar kar thieth machiegni ahinya gi dalani?	**PUBLIC SECTOR** GOVT. NATIONAL/PROVINCIAL REFERAL HOSPITAL. ……11 GOVT. DISTRICT HOSPITAL…… 12 GOVT.SUB-DISTRICT HOSPITAL ……13 GOVT. HEALTH CENTRE…….. … 14 GOVT. DISPENSARY …..…….. 15 OTHER PUBLIC_____ 18 (SPECIFY) **PRIVATE SECTOR** PRIVATE HOSPITAL…….. 21 PRIVATE CLINIC…… 22 PRIVATE DOCTOR'S OFFICE……. 23 NURSING/MATERNITY HOME…….. 24 PHARMACY/CHEMIST……25 OTHER PRIVATE_____ 26 (SPECIFY) **FBO** MISSION HOSPITAL…….. 31 FAITH-BASED HOME/HEALTH CENTRE…….. 32 **OTHER** OTHER NGO HOSPITAL…….. 41 OTHER NGO CLINIC…… 42 YOUTH CENTRE…… 43 MOBILE CLINIC…… 44 OTHER _____ 96 (SPECIFY)	.

Q63.	What was the main reason you did not go to this facility near your home? En ang'o momiyo ne ok odhi e kar thieth machiegni kod dalani ni?	INCONVENIENT OPERATING HOURS . .……01 BAD REPUTATION . . . .…….. ……..0 2 DON'T LIKE PERSONNEL……03 NO MEDICINE . . . . . .…….. .……04 PREFERS TO REMAIN ANONYMOUS .……05 IT IS MORE EXPENSIVE . . .……06 REFERRAL TO ANOTHER FACILITY . .……07 FACILITY NOT OPEN……08 FACILITY OF POOR QUALITY……09 DO NOT PROVIDE DESIRED SERVICES …..10 PROVIDERS OFTEN AWAY……11 DOES NOT ACCEPT INSURANCE……12 PROVIDER TREATS PATIENTS POORLY…..13 OTHER(SPECIFY) _____96 DON'T KNOW . . ... . ……. ……..98	
Q64.	Do you use this health facility (the one closest to your home) for other health services? Be itiyoga gi kar thieth ni (machiegni kod manie dalani) kuom kony chieth mamoko?	YES . . . . . 1 NO . . . . . 2 ⟶	**Q66**
Q65.	For what other health services do you go to this facility near your home? Kendo idhi ga e od thieth machiegni kodi ni kony mege thieth maage? **MULTIPLE RESPONSES POSSIBLE. CIRCLE ALL MENTIONED.**	ANTENATAL CARE . . . . . .…….. . . . . A DELIVERY SERVICES . . . . . .……..B POSTNATAL CARE . . . . . .……..C GROWTH MONITORING . . . . . .……D STI MANAGEMENT . . . .……E HIV/AIDS MANAGEMENT . . . . . .……..F CURATIVE SERVICES . . . . . .……..G NUTRITION SERVICES/INFORMATION. . . . . H CHILD IMMUNIZATION . . . . . .……..I POST-ABORTION CARE. . . . . .……J VCT……K FAMILY PLANNING. . . . . .……L OTHER HEALTH SERVICE _____ X (SPECIFY)	

MEDIA EXPOSURE

Now I would like to ask you some questions about the different media sources from which you receive information.
Koro adwa penji penjo moko ewii nyakalondni ma opogre opogre ma iyudo kodo wach.

SOURCE	QUESTIONS	CODING	SKIP
Q66.	Have you heard any family planning messages in the last three months? Be isewinjo wach mar komo nyuoll moro amora e dweye adek ma okadho?	YES……1 NO……2 → **Q68** DON'T REMEMBER……8 → **Q68**	
Q67.	From where did you hear **this (these)** family planning message(s)? Weche mag komo nyuolgi ne iwinjo kanye? PROBE: Any other places/by any other means? Kamoramora machielo/e yo moroamora machielo **MULTIPLE RESPONSES POSSIBLE.** **CIRCLE ALL MENTIONED.**	**Media Sources** RADIO……..……..AA TV……..……...AB VIDEOS ……...AC NEWSPAPERS ……..…..AD MAGAZINES/BOOKS …… AE FLYERS/LEAFLETS ……AF BILL BOARDS……AG WALL PAINTING…….....AH FACE BOOK…….....AI INTERNET……..……..……...AJ E-MAIL……...AK SMS……AL **Health Personnel Sources** CLINICAL OFFICER/DOCTOR ……..……BA NURSE/MIDWIFE……BB CHW/CBD……BC PHARMACY/PHARMACIST……BD CHEMIST/DUKA LA DAWA…..……BE HOSPITAL……BF CLINIC ……..BG TBA……..……BH HERBALIST/TRADITIONAL HEALER……..…BI **Community Sources** CINEMA/MOBILE CINEMA……CA VIDEO SHOPS/DEN……CB SOCIAL/COMMUNITY HALLS……..…CC COMMUNITY OUTREACH EVENTS (THEATRE, PUPPETS, ROAD SHOWS, ETC)……..CD PEER EDUCATION……..CE SCHOOL……CF NGOS……..CG FBOS/CHURCH/MOSQUES……..CH COMMUNITY MEETINGS (BARAZAS, ETC)…....CI WOMEN'S GROUPS…….....CJ **Interpersonal Sources** PARENTS……DA IN-LAWS……DB SPOUSE/PARTNER……DC SIBLINGS……..…DD SISTER/BROTHER IN LAWS……DE FRIENDS/NEIGHBORS……..…….. DF OTHER RELATIVES……DG OTHER SOURCES: _____XX	

		NONE……YY DON'T KNOW……ZZ	

PERSONAL CHARACTERISTICS OF CLIENT			
SOURCE	**QUESTIONS**	**CODING**	**SKIP**
Q68.	Have you ever attended school? Be nene isega dhiye sikul	YES……1 NO……2 →	**Q71**
Q69.	What is the highest level of school you **attended:** Nursery/kindergarten,primary, vocational post primary, secondary /'A' levels, college or university? Ichopo e **rang'iny** mane mamalo e sombi?**:** Nursery/kindergarten,primary, vocational ikalo primary, secondary /'A' levels, college kata mbalariany?	NURSERY/KINDERGARTEN……. 0 → PRIMARY……..1 VOCATIONAL POST PRIMARY……2 SECONDARY/ALEVEL……..3 COLLEGE (MIDDLE LEVEL)……....4 UNIVERSITY ……5 →	**Q71** **Q71**
Q70.	What is the highest (class/form/standard year) you completed at that level? En rang'iny mane mar (class/form/standard higa) ma nene itieke sombi?	CLASS/FORM/STANDARD/YEAR……[__|__]	
Q71.	What is your religion? Ilemo e din mane?	CHRISTIAN, CATHOLIC……..…..1 PROTESTANT/OTHER CHRISTIAN ……..…..2 ISLAM……..……3 TRADITIONAL……...4 NO RELIGION……..……..……5 OTHER_____ 6 (SPECIFY)	
Q72.	What is your current marital status? Kend mari chal nadi? **PROBE FOR EXACT STATUS**	CURRENTLY MARRIED…….. . . . . …... .... ..1 LIVING WITH A MAN AS IF MARRIED .. ……. 2 DIVORCED……3 SEPARATED……4 WIDOWED…… . . ……..5 SINGLE, NEVER MARRIED ……. ……..6	**Q75**
Q73.	Is your husband/partner living with you now, or does he stay elsewhere? Be jaodi/jaherani odak kodi sani, kose odak kuma chielo?	LIVING WITH YOU……..……1 STAYING ELSEWHERE ……..2	
Q74.	Have you ever discussed family planning with your husband/partner? Be ise twak gi jaodi/jaherani ewii komo nyuol?	YES ……..……1 NO ……2	
Q75.	In the last 6 months, have you discussed family planning with anyone else, apart from a husband or regular partner? E dweche auchiel ma okadho,be isetwak e wii komo nyuol gi ng'at moro ma opogre gi jaodi kata jaherani mapile?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

Q76.	CHECK Q4: FOR DELIVERY-RELATED SERVICE OR Q22 CURRENTLY PREGNANT IF Q4= FAMILY PLANNING (01), GROWTH MONITORING (06), CHILD IMMUNIZATION (07), STI MANAGEMENT (08), HIV/AIDS MANAGEMENT (09), CURATIVE SERVICES (10), VCT (11), OTHER (96) **AND** Q22 =2 OR 8 FOR **NOT** CURRENTLY PREGNANT ☐	IF Q4= ANTENATAL CARE (02), DELIVERY SERVICES (03), POSTNATAL CARE (04), OR POST-ABORTION CARE (05), **OR** Q22=1 FOR CURRENTLY PREGNANT ☐ → **Q78**	
Q77.	Have you ever been pregnant? Be isega mako ich?	YES . . . . . 1 NO . . . . . 2 →	**Q79**
Q78.	How many living children of your own do you have? In gi nyithindi adi mapodi ngima? **RECORD NUMBER GIVEN.**	NUMBER OF CHILDREN …….. ☐☐ NONE ……00 DON'T KNOW ……98	
Q79.	Would you like to have (a/another) child in the future? [Bang' nyuolo nyathini] be igombo bedo gi (nyathi/nyithindo) e ndalo mabiro	YES . . . . . 1 NO . . . . . .2 DEPENDS ON HUSBAND . . . . 3 DEPENDS ON GOD . . . . . .4 CAN'T GET PREGNANT……5 DON'T KNOW . . . . . .8 →	**Q81**
Q80.	After the birth of this child] How long would you like to wait from now before the birth of (a/another) child? [Bang' nyulo nyathini] inyalo gombo rito marom nade kochakore sani kapok iyudo nyathi machielo?	LESS THAN A YEAR . . . . . 1 ONE TO TWO YEARS . . . . . 2 MORE THAN TWO YEARS . . . . 3 DON'T KNOW 8	
Q81.	How many times have you had sex in the last three (3) months? Iseriwori gi dichuo di di e dueche adek mokadho?	NUMBER OF TIMES…… [__|__|__] **OR** NONE……000 DAILY……991 WEEKLY ……992 MONTHLY……993 OTHER_____ 996 (SPECIFY) DON'T KNOW…… 998	
Q82.	Did anyone come with you to the facility today? Be ng'ato ang'ata nobiro kodi e kar thieth kawuono?	YES . . . . . 1 NO . . . . . 2 →	**Q84**
Q83.	Who came with you? Ng'a manobiro kodi? **MULTIPLE RESPONSES POSSIBLE. CIRCLE ALL MENTIONED.**	CHILD(REN)……A HUSBAND……B MOTHER……C MOTHER-IN-LAW……D FRIEND……E OTHER _____X	
Now I am going to ask you some questions about the household in which you live.			

Q84.	Where do you currently live? Idak kanye sani?	VILLAGE/ NAME OF ESTATE _____ NEAREST URBAN/MARKET CENTRE_____ ☐☐☐ OFFICE USE ONLY PROVINCE NAME_____ ☐☐ OFFICE USE ONLY	
Q85.	What is the predominant material that the roof of your house is made of? Wi odi olosi ga'ngo? **PROBE FOR PREDOMINANT MATERIAL USED; ONLY CIRCLE ONE RESPONSE.**	**NATURAL ROOFING** DUNG/MUD ……..11 THATCH/PALM LEAF /REED/GRASS..12 **RUDIMENTARY ROOFING** PLASTIC BAGS……21 TIN CANS……22 PALM/BAMBOO……23 WOOD PLANKS……24 CARDBOARD……25 **FINISHED ROOFING** CORRUGATED IRON (MABATI) ……31 ASBESTOS SHEETS……32 CONCRETE……33 ROOFING SHINGLES……34 TILES……35 OTHER _____96 (SPECIFY)	
Q86.	What kind of toilet facility does your household have? Jo odi nitiye kod cho mane?	**FLUSH OR POUR FLUSH TOILET** FLUSH TO PIPED SEWER SYSTEM. .11 FLUSH TO SEPTIC TANK . . . . . 12 FLUSH TO PIT LATRINE . . . . . 13 FLUSH TO SOMEWHERE ELSE……..14 FLUSH, DON'T KNOW WHERE . . . …15 **PIT LATRINE** VENTILATED IMPROVED PIT LATRINE . . . . . 21 PIT LATRINE WITH SLAB . . . . . 22 PIT LATRINE WITHOUT SLAB/ OPEN PIT . . . .23 COMPOSTING TOILET . . . .31 BUCKET TOILET . . . .41 HANGING TOILET/HANGING LATRINE...51 NO FACILITY/BUSH/FIELD . . . . . 61 → **Q89** OTHER_____96 (SPECIFY)	
Q87.	Is it inside or outside your dwelling? En tiye e yie kose woko mar odi?	INSIDE DWELLING..... 1 OUTSIDE DWELLING ……2	
Q88.	Do you share this toilet with other households? Be itiyo kod choo ni gi jo udi mamoko?	YES ..... 1 NO..... 2 DON'T KNOW……8	

Q89.	What is the main source of drinking water for your household? En kune ma igolee pi ma imodho gi joodu?	**PIPED WATER** INTO DWELLING.....11 PIPED TO YARD/PLOT.....12 PUBLIC TAP/STANDPIPE.....13 TUBE WELL OR BOREHOLE.....21 **DUG WELL** PROTECTED WELL.....31 UNPROTECTED WELL.....32 **WATER FROM SPRING** PROTECTED SPRING.....41 UNPROTECTED SPRING.....42 **RAINWATER** WITHIN THE YARD/PLOT…… 51 OUTSIDE THE YARD/PLOT…… 52 TANKER TRUCK.....61 CART WITH SMALL TANK.....71 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/ CANAL).....81 BOTTLED WATER.....91 OTHER_____96	
Q90.	How many rooms in total are in your household, including rooms for sleeping but not including bathrooms and kitchen? Gin udi adii duto mantiere e ii odi, riw kata rooms mege nindo to ok mege luok kod jokon?	ROOMS (TOTAL)…… ☐☐	
Q91.	Does your household have electricity? Be jo odi nitiye gi stima?	YES ……1 NO……2	
Q92.	Does this household have a generator? Be jo odi ni gi jenereta?	YES ……1 NO……2	
Q93.	Does your household have a mobile phone? Be jo odi ni gi simu mar luedo/mobile?	YES ……1 NO……2	
Q94.	Does your household have a radio? Be jo odi ni gi redio?	YES ……1 NO……2	
Q95.	Does your household have electric/gas cooker/ meko/ burner? Be jo odi ni gi jiko mar stima/gas/meko?	YES ……1 NO……2	
Q96.	Does your household own a television? Be jo odi ni *gi tv*?	YES ……1 NO……2	
Q97.	Does your household own an electric iron? Be jo odi ni gi pas mar stima?	YES ……1 NO……2	
Q98.	Does your household own a computer? Be jo odi nitiye gi komputa?	YES ……1 NO……2	

Q99.	Does your household own a VCR/DVD player? Be jo odi nitiye gi DVD/VCR	YES ……1 NO……2	
Q100.	Does your household own a mattress? Be jo odi nitiye gi godhro?	YES ……1 NO……2	
Q101.	Does your household own a refrigerator? Be jo odi nitiye gi frig?	YES ……1 NO……2	
Q102.	Does your household own an electric fan? Be jo odi nitiye gi fan mar stima?	YES ……1 NO……2	
Q103.	RECORD THE TIME WHEN THE INTERVIEW ENDED...		
Thank you very much for taking the time to answer my questions. Once again, any information you have given will be kept completely confidential. Have a good day! Erokamano ahinya kuom kawo thuoloni makende mondo iduok penjo gi, kendo ,chiwo moro amora ma ichiwo ibiro ket maling'ling', bed kod odiechieng' maber.!			
INTERVIEWER'S COMMENTS:			

- Ask the client which provider she saw today for her family planning counseling session and then record the matching two-digit identification number here: **[___|___]. Enter this number on the Cover Page.**

- Ask the client if there was a third person present during the family planning counseling session who was making observations. Yes….. 1; No……2. **Enter this information on the cover page.**

MLE Measurement, Learning & Evaluation Project for the Urban Reproductive Health Initiative

Observation Guide for Counseling and Clinical Procedures – Kenya 2012

CITY NAME & CODE ___Kisumu_____ (Nairobi=1, Mombasa=2, Kisumu =3, Machakos=4, Kakamega=5) FACILITY NAME AND CODE _____ (obtained from health facility survey) QUESTIONNAIRE IDENTIFICATION (OFFICE USE ONLY) PROVIDER NAME & CODE FROM THE FACILITY AUDIT LIST – Q7D _____	**[3]** [___|___|___|___|___| (City code+ fac type + Fac ID; [___|___|___|___|___|___|___|___] **(Facility ID + respondent #)** [___|___]

TYPE OF HEALTH FACILITY

PUBLIC SECTOR
- GOVT. NATIONAL/PROVINCIAL REFERAL HOSPITAL. 11
- GOVT. DISTRICT HOSPITAL.....12
- GOVT.SUB-DISTRICT HOSPITAL 13
- GOVT. HEALTH CENTRE..... 14
- GOVT. DISPENSARY 15
- OTHER PUBLIC_____ .....18 (SPECIFY)

PRIVATE SECTOR
- PRIVATE HOSPITAL.....21
- PRIVATE CLINIC.....22
- NURSING/MATERNITY HOME.....23
- OTHER PRIVATE_____ .....24 (SPECIFY)

FBO
- MISSION HOSPITAL.....31
- FAITH-BASED HOME/HEALTH CENTRE.....32
- OTHER NGO HOSPITAL..... 41
- OTHER NGO CLINIC..... 42

OTHER
_____...96
(SPECIFY)

KISW ENG DHOLUO KIKAMBA
LANGUAGE OF INTERVIEW 1 2 3 4

OBSERVER'S VISITS AND RESULTS

OBSERVER	OBSERVATION RESULT	OBSERVATION DATE
NAME _____ _____ ☐☐☐	Completed . . . . . .1 Incomplete.....2 Refused . . . . . .3 Other _____6 (specify)	Day ☐☐ Month ☐☐ Year ☐☐☐☐

Female Consent Form: Third party observation
Purpose of the study
Oboke mar kwayo rusa kuom joma mine: Neno moa kuom ngat mar adek (Ber mar nonro)

Hello! My name is _____, I am part of a research team working under Tupange with technical assistance from the Measurement, Learning & Evaluation project. We are doing a survey to find out about the services provided at this clinic. The clinic has given us permission to do this survey. Your participation in this study will help to improve family planning services in this city. We would like your permission to observe your visit with the clinic staff and to ask you a few questions about the visit afterwards.

Nade, nyinga en..... an achiel kuom jo tim nonro matiyo kod migawo miluongo ni 'Tupange' ma be tiyo kachiel gi 'Measurement, Learning & Evaluation project'. Watimo norno kalure gi thieth mopogore opogore mayudore e kar yudo thieth ni. Waseyudo thuolo mondo watim nonroni e kar yudo thieth ni. Bedo achiel kuom jogo mabiro bedo e nonroni biro konyo loso yore mag komo nyuol e bomani. Wakwayo thuolo mari mondo wabed wane kaka iyudo thieth kendo wapenji penjo mako matin kuom thieth miyudo e kinde ma bange.

Explanation of Procedures
Yoo ma wabiro tiyogo

During your visit, I will be sitting a little apart from you and the clinic staff. You do not have to be observed. You will not be denied any services if you decide not to participate. If you agree to participate, you can change your mind at any time during the visit.

E kinde ma iyudo thieth, a biro bedo mabor matin kodi gi jachiw thieth. Ok ochuno ni nyaka ane kaka iyudo thieth. Ok nyal tami yudo thieth nikech ok ihero bedo achiel kuom jomanitie e nonroni. Ka iyie bedo achiel kuom joma nitie e nonroni, ingi thuolo mar loko pachi saa asaya e kindeni mar yudo thieth.

Confidentiality
Maling'ling'

The information collected during this observation will not be shared with anyone outside this project. Your name will not appear on the survey and everything that is observed will be kept strictly confidential. We will not share the information collected during your visit with community members, health providers, family or anyone else. At the end of the study, we will put all the answers together and make a report.

Duoko mari ok bi nyis ng'ato a ng'ata mantie oko mar nonroni. Nyingi ok bi neno e gigo mag nonroni kendo dwoko mari mar thieth ok bi nyis ng'ato. Dwoko mari mar thieth ok wabi nyiso jo gweng', jochiw thieth, anyuola kata ng'ato moro amora. E giko nonroni, wabiro keto duoko duto kanyakla kawalosogo report.

Who is taking part in this study?
Gin jok mage manyalo bedo e nonroni?

We are asking all new family planning clients visiting this facility and 18 other large facilities in Kisumu during the study period to participate.

Wakwayo ji manyien mabiro yudo gigo mag komo nyuol e kar thieth ni gi mamoko 18 manie e boma ma Kisumo e kinda mag nonroni mondo o bed kanyakla kodwa e nonroni.

Benefits
Ber

Research helps society by providing new knowledge. You may not benefit directly from this survey. However, your answers will be important for planning better programs to make sure women can access the health care they need.

Nonro konyo oganda gi rieko manyien. Samoro ok inyal neno ber mar nonroni kuomi iwuon. Katakamana, duokoni biro konyo maduong' e chano migepe mamoko mondo jomamon oyud thieth maber kaka dwarore.

Risks and Discomforts
Rach

There is the possibility you may feel uncomfortable discussing your healthcare needs with me in the room. If you feel uncomfortable you can ask me to leave your counseling session at any time.

Nyalore ni inyalo yudo penjo moko ma ok diher duoko ka antie kodu e kar thieth. Ka nitie penjo makamano, bed thuolo mondo inyisa awuog oko mar kar thieth modo iyud thieth ka in thuolo.

Costs and Payment for Participation
Omuom kod chudo mar bedo e nonroni

There are no costs for being in this study. You will not receive any money for taking part in this study.

Onge chudo moro a mora mar bedo achiel kuom jok mantie e nonroni. Ok ibi yudo chudo moro amora kuom bedo a chiel kuom jogo mantie e nonroni.

Questions
Penjo

This study has been approved by the Kenya Medical Research Institute, and the University of North Carolina (USA). If you have any questions about this study or the results, you can contact the following: the study principle investigator at the Measurement, Learning & Evaluation Project, Ms. Tumlinson Kat at +254 0724 827 623, The Secretary, National Ethics Review Committee at Kenya Medical Research Institute, PO Box 54840-00200 Nairobi, Telephone numbers: +254 (020) 2722541, 0722205901, 0733400003, email: ERC@kemri.org; or the Institutional Review Board at the University of North Carolina at +1 919-966-3113. You have the right to ask, and have answered, any questions you may have about this research. If you have questions or concerns, you should contact the researchers listed above, or ask me before or after the interview. Do you have any questions now?

Nonroni osepuodhi gi migawo, motelo ni puodho nonro duto matimore e pinywaka, miluongoni 'Kenya Medical Research Institute' kod mbalariany miluongoni 'University of North Carolina (USA)'. Ka ingi penjo moro amora kalure gi nonroni kata duoko, inyalo tudori gi jogi: ja chung' ne nonro e migawo miluongoni 'Measurement, Learning & Evaluation Project' manyinge en Ms. Tumlinson Kat e nambani +254 0724 827 623, Ja goro mar, National Ethics Review Committee mantiye kar thieth kod timo nonro ma Kenya e PO Box 54840-00200 Nairobi, +254 (020) 2722541, 0722205901, 0733400003, ERC@kemri.org; kata jogo motelo ne puodho nonro kamiluongoni 'the Institutional Review Board at the University of North Carolina' e namba ni +1 919-966-3113. Oyieni penjo, kendo yudo duoko, kaluregi penjo duto maingodo kuom nonroni. Ka ingi penjo moro a mora, tudri gi jok motelo ne nonroni, kata inyalo penja kapok achako penjo kata bang' penjo. Be ingi penjo moro a mora nyaka sani?

Consent
Yie

Now, can you tell me if you agree to participate in this research? If you say 'yes', it means that you have agreed to be part of the study *(interviewer – circle answer)*.

Koro inyalo nyisa ka iyie mondo ibed achiel kuom joma nitie e nonroni? Ka iwacho ni 'Eee', mano nyiso ni iyie bedo achiel kuom joma nitie e nonroni (interviewer – circle answer)

1.... Yes 2..... No

Would you like a copy of this document?

Be diher bedo gi oboke mar nonroni?

Signature of interviewer: _____

Date: _____

Service Provider Consent Form: Third party observation

Purpose of the study

Hello! My name is _____, I am part of a research team working under Tupange with technical assistance from the Measurement, Learning & Evaluation Project. We are doing a survey to find out about the services provided at this clinic. The clinic has given us permission to do this survey. Your participation in this study will help to improve family planning services in this city. We would like your permission to observe your session with a new family planning client.

Explanation of Procedures

During the family planning counseling session, I will be sitting a little apart from you and the client.
You can choose not to be observed. There will be no effect on your job or professional standing if you decide not to participate. If you agree to participate, you can change your mind at any time during the visit.

Confidentiality

The information collected during this observation will not be shared with anyone outside this project. Your name will not appear on the survey and everything that is observed will be kept strictly confidential. We will not share information collected during the family planning counseling session with your clients, colleagues, government officials or anyone else. At the end of the study, we will put all the answers together and make a report.

Who is taking part in this study?

We are conducting this study at 19 large health facilities in Kisumu.

Benefits

Research helps society by providing new knowledge. You may not benefit directly from this survey. However, your answers will be important for planning better programs to make sure women can access the health care they need.

Risks and Discomforts

There is the possibility the client will feel uncomfortable discussing her healthcare needs with you while I am in the room. If you feel the client is uncomfortable, you can ask me to leave your counseling session at any time.

Costs and Payment for Participation

There are no costs for being in this study. You will not receive any money for taking part in this study.

Questions

This study has been approved by the Kenya Medical Research Institute, and the University of North Carolina (USA). If you have any questions about this study or the results, you can contact the following: the study principal investigator at the Measurement, Learning & Evaluation Project, Ms. Tumlinson Kat at +254 0724 827 623, The Secretary, National Ethics Review Committee at Kenya Medical Research Institute, PO Box 54840-00200 Nairobi, Telephone numbers: +254 (020) 2722541, 0722205901, 0733400003, email: ERC@kemri.org; or the Institutional Review Board at the University of North Carolina at +1 919-966-3113. You have the right to ask, and have answered, any questions you may have about this research. If you have questions or concerns, you should contact the researchers listed above, or ask me before or after the interview. Do you have any questions now?

Consent

Now, can you tell me if you agree to participate in this research? If you say yes, it means that you have agreed to be part of the study.

1…. Yes 2….. No

Would you like a copy of this document?

Signature of the provider: _____

Date: _____

Signature of the interviewer: _____

BACKGROUND INFORMATION		
Source	**Questions**	**Coding**
Q1.	RECORD THE TIME (IN 24 HOUR FORMAT)	Hour …… ☐☐ …….. ☐☐
Q2.	SEX OF PROVIDER OBSERVED	MALE……..1 FEMALE……..2
CHOICE OF METHODS		
Q3.	Which methods did the provider mention to the client? **(Circle all that apply)**	DAILY PILL ……A MALE CONDOM . …….. B FEMALE CONDOM ……C IUD…….. D INJECTABLES……E IMPLANT……F NATURAL METHODS (STANDARD DAYS/CYCLE BEADS/ WITHDRAWAL) ……G BREASTFEEDING/LAM ……H MALE STERILIZATION……..I FEMALE STERILIZATION…….. ……J EMERGENCY CONTRACEPTION ……K SPERMICIDE……..L OTHER _____X (SPECIFY) NONE……..Y
Q4.	Did the provider ask about/discuss the client's preferred method or method of choice?	YES ……1 NO……...2
Q5.	Did the client receive her desired method?	YES ……1 **(SKIP TO Q8)** NO……...2 DON'T KNOW……8 **(SKIP TO Q8)**
Q6.	If no, why not?	PROVIDER REFUSED ……..1 **(SKIP TO Q8)** METHOD NOT AVAILABLE AT THIS FACILITY ……..2 OTHER _____6 **(SKIP TO Q8)** (SPECIFY)

Q7.	If desired method was not available at this facility, did the provider tell the client where she could go to get her desired method?	YES ……1 NO……..2 DON'T KNOW……8

INFORMATION GIVEN		
Q8.	Did the provider help the client select a method?	YES ……1 NO……..2
Q9.	What method was selected? **CIRCLE ONLY ONE**	DAILY PILL ……1 MALE CONDOM…… 2 FEMALE CONDOM……3 IUD…… 4 INJECTABLES……5 IMPLANT……6 NATURAL METHODS (STANDARD DAYS/CYCLE BEADS/ WITHDRAWAL) ……7 BREASTFEEDING/LAM……8 MALE STERILIZATION……9 FEMALE STERILIZATION…….. ……10 EMERGENCY CONTRACEPTION..... 11 OTHER _____96 (SPECIFY) NONE……12
Q10.	Did the provider tell the client what side effects to expect with her chosen method?	YES ……01 NO……..02 **(IF NO, SKIP TO Q12)**
Q11.	Which side effects were mentioned? (Circle all that apply)	NAUSEA ……A MILD HEADACHE……B SPOTTING OR BLEEDING BETWEEN PERIODS……..C HEAVY OR PROLONGED BLEEDING……..D BREAST TENDERNESS……..E SLIGHT WEIGHT GAIN……F MOOD CHANGE……G AMENORRHEA……H FATIGUE……I DIZZINESS……J DECREASED SEX DRIVE……..K MISSED PERIOD OR NO PERIOD……L DELAYED RETURN TO FERTILITY……..M OTHER _____X (SPECIFY)
Q12.	Did the provider suggest ways for the client to manage the side effects?	YES ……01 NO……..02 **(IF NO, SKIP TO Q14)**

Q13.	What suggestions about side effects did the provider make? **(Circle all that apply)**	TAKE THE PILL WITH MEALS OR AT BEDTIME……..A TAKE THE PILL AT THE SAME TIME EVERY DAY……..B TAKE IBUPROFEN……..C SIDE EFFECTS SHOULD DECLINE OVER TIME……..D OTHER_____ _____X (SPECIFY)
Q14.	Did the provider discuss warning signs?	YES ……01 NO……..02 **(IF NO, SKIP TO Q17)**
Q15.	What warning signs did the provider discuss? **(Circle all that apply)**	ABDOMINAL PAINS……..A CHEST PAIN OR SHORTNESS OF BREATH……..B HEADACHES……..C EYE PROBLEMS……D SEVERE CALF MUSCLE PAIN……E OTHER_____ _____X (SPECIFY) NONE……Y
Q16.	Did the provider tell the client what to do if they experience warning signs?	YES ……1 NO……..2
Q17.	Did the provider tell the client how to use her selected method?	YES ……1 NO……..2
CLIENT PROVIDER INTERACTION		
Q18.	Did the provider give the client a respectful and/or friendly greeting?	YES ……1 NO……..2

Q19.	Did the provider enquire about the client's reproductive goals and plans? (i.e.: did he or she ask how many children the client would like to have and when?)	YES ……1 NO……...2
Q20.	Did the provider ask the client if she had any questions?	YES ……1 NO……...2
Q21.	If the client had questions, did the provider answer all of the client's questions?	YES ……..…1 NO…….....2 THE CLIENT DID NOT HAVE ANY QUESTIONS..3 DON'T KNOW IF THE CLIENT HAD QUESTIONS.8
PROVIDER COMPETENCE		
Q22.	Was the client's medical history taken?	YES ……1 NO……...2
Q23.	If an exam or procedure was performed, did the provider wash his/her hands beforehand*? If no water is available at the facility, note if hand sanitizer was used.*	YES ……1 NO……...2 NO EXAM WAS PERFORMED……..3
Q24.	If a pelvic exam was performed, did the provider use a sterile speculum?	YES ……..……1 NO……..……...2 NO PELVIC EXAM WAS PERFORMED……..3
Q25.	If an exam or procedure was performed, did the provider use gloves?	YES ……1 NO……...2 NO EXAM WAS PERFORMED……..3
FOLLOW-UP MECHANISM		
Q26.	Did the provider inform the client when to return for a follow-up visit?	YES ……1 NO……...2 **(IF NO, SKIP TO Q28)**
Q27.	If yes, was the client given a reminder card or other memory prop?	YES ……1 NO……...2
Q28.	Was the client told what to do if she experienced problems before her next visit?	YES ……1 NO……...2
Q29.	Did the provider inform the client where to go for resupplies?	YES ……1 NO……...2 THE CLIENT WILL NOT NEED RESUPPLIES (SELECTED IUD, IMPLANT, STERILIZATION, NATURAL METHOD)……3
APPROPRIATE CONSTELLATION OF SERVICES		
Q30.	In addition to the family planning services, did the client receive any	YES ……1 NO……...2 **(SKIP TO**

	other health services from the service provider today?	**Q32)** DON'T KNOW……8 **(SKIP TO Q32)**
Q31.	If yes, indicate type of service. **(Circle all that apply)**	ANTENATAL CARE---------- A DELIVERY SERVICES ---------- B POSTNATAL CARE ---------- C POST-ABORTION CARE ----------D GROWTH MONITORING---------- E CHILD IMMUNIZATION ---------- F STI MANAGEMENT ----------G HIV/AIDS MANAGEMENT ---------- H CURATIVE SERVICES ---------- I HIV TESTING AND COUNSELLING ---- J OTHER _____ X (SPECIFY)

TO BE COMPLETED IMMEDIATELY AFTER OBSERVATION		
Q32.	What was the <u>main purpose</u> of the client coming for a family planning visit today?	RECEIVE FAMILY PLANNING FOR THE FIRST TIME EVER ……..…….1 RECEIVE FAMILY PLANNING FOR THE FIRST TIME AT THIS SITE ……..…..2 RESTART FAMILY PLANNING METHOD AFTER NON-USE OF 3+ MONTHS...3 SWITCH OR RESTART A DIFFERENT/NEW METHOD ……..……4 OTHER _____ _____6 (SPECIFY) DON'T KNOW…… ……8
Q33.	What type of staff is the provider?	PHYSICIAN/GYNO……..……. …..1 NURSE…….....…. ….4 COMMUNITY HEALTH EXTENSION WORKER (CHEW)……..5 VCT PROVIDER……7 OTHER _____96 (SPECIFY) DON'T KNOW……98
Q34.	Which, if any, method(s) did the provider refuse to offer to the client <u>when specifically requested</u> by the client? **(Circle all that apply)**	DAILY PILL …..……..……A MALE CONDOM……..…..…….. B FEMALE CONDOM……C IUD…….…… D INJECTABLES.....…….……E IMPLANT…….…….……F NATURAL METHODS (STANDARD DAYS/CYCLE BEADS/ WITHDRAWAL) ……..…..…G BREASTFEEDING/LAM .....……H MALE STERILIZATION…….……..I FEMALE STERILIZATION……..……J EMERGENCY CONTRACEPTION…..... K

		SPERMICIDE……L OTHER _____X (SPECIFY) NONE……Y
Q35.	RECORD THE TIME IN 24 HOUR FORMAT	Hour ……

COMMENTS

MLE Measurement, Learning & Evaluation Project for the Urban Reproductive Health Initiative

Simulated Client Checklist for Observing Counseling and Clinical Procedures – Kenya 2012

CITY NAME & CODE ___KISUMU_____ (Nairobi=1, Mombasa=2, Kisumu =3, Machakos=4, Kakamega=5)	**[3]**
FACILITY NAME AND CODE _____ (obtained from health facility survey)	[___|___|___|___|___| (City code+ fac type + Fac ID; [___|___|___|___|___|___|___] **(Facility ID + respondent #)**
QUESTIONNAIRE IDENTIFICATION (OFFICE USE ONLY) PROVIDER CODE FROM THE FACILITY AUDIT **– Q7D**	[___|___]

TYPE OF HEALTH FACILITY

PUBLIC SECTOR
- GOVT. NATIONAL/PROVINCIAL REFERAL HOSPITAL. ……11
- GOVT. DISTRICT HOSPITAL……12
- GOVT.SUB-DISTRICT HOSPITAL ……13
- GOVT. HEALTH CENTRE…… …….14
- GOVT. DISPENSARY ……..15
- OTHER PUBLIC_____ …….18 (SPECIFY)

PRIVATE SECTOR
- PRIVATE HOSPITAL……21
- PRIVATE CLINIC……..22
- NURSING/MATERNITY HOME……..23
- OTHER PRIVATE_____ …….24 (SPECIFY)

FBO
- MISSION HOSPITAL……31
- FAITH-BASED HOME/HEALTH CENTRE……..32

- OTHER NGO HOSPITAL…… ……..41
- OTHER NGO CLINIC…… ……. ….42
- **OTHER _____...96 (SPECIFY)**

KISW ENG DHOLUO KIKAMBA
LANGUAGE OF INTERVIEW 1 2 3 4

OBSERVER'S VISITS AND RESULTS

OBSERVER	OBSERVATION RESULT	OBSERVATION DATE
NAME _____ _____ ☐☐☐	Completed……..1 Incomplete……..2 Other _____6 (specify)	Day ☐☐ Month ☐☐ Year ☐☐☐☐

RECORD THE TIME IN 24 HOUR FORMAT

Hour …… Minutes....

☐☐ ☐☐

CHOICE OF METHODS
STATE PREFERRED METHOD: _____

<table>
<tr>
<td colspan="2">1. Which methods did the provider mention to you?
Check all that apply.
☐ PILLS
☐ CONDOMS
☐ IUD
☐ INJECTABLES
☐ IMPLANT
☐ NATURAL METHODS (CYCLE BEADS/WITHDRAWAL)
☐ BREASTFEEDING/LAM
☐ MALE STERILIZATION
☐ FEMALE STERILIZATION
☐ EMERGENCY CONTRACEPTION
☐ SPERMICIDE
☐ OTHER _____ (SPECIFY)
☐ NONE</td>
<td>2. Did the provider ask you which method you would prefer to use?
☐ YES
☐ NO</td>
</tr>
<tr>
<td>3. Did you receive/were you offered the method you asked for?
☐ YES
☐ NO</td>
<td>4. If you did not receive or were not offered the method you asked for, why not?
☐ THE PROVIDER REFUSED TO OFFER ME THE METHOD I ASKED FOR
☐ THE METHOD I ASKED FOR IS NOT AVAILABLE AT THIS FACILITY
☐ I <u>DID</u> RECEIVE THE METHOD I ASKED FOR
☐ OTHER_____(SPECIFY)</td>
<td>5. If the method you asked for was not available at this facility, did the provider tell you where to get it?
☐ YES
☐ NO
☐ THE METHOD I ASKED FOR <u>WAS</u> AVAILABLE AT THIS FACILITY</td>
</tr>
</table>

INFORMATION GIVEN TO USER

6. Did the provider try to help you select a method? For example, did the provider ask if you currently have children or are breastfeeding? Or, did the provider ask which version of the method you would like such as a 2 versus a 3-month injection? ☐ YES ☐ NO	7. Did the provider tell you what side effects to expect <u>for your chosen method</u>? ☐ YES ☐ NO	8. Check any side effects your provider mentioned <u>for your chosen method</u>. **Check all that apply.** ☐ NAUSEA OR VOMITING ☐ HEADACHE ☐ MISSED PERIODS OR NO PERIODS ☐ BLEEDING BETWEEN PERIODS/SPOTTING ☐ DELAYED FERTILITY ☐ HEAVY BLEEDING ☐ WEIGHT GAIN ☐ MOOD CHANGE ☐ FEELING TIRED ☐ FEELING DIZZY ☐ DECREASED SEXUAL APPETITE ☐ OTHER _____(SPECIFY) ☐ NONE
9. Did the provider suggest ways for you to handle side effects <u>for your chosen method</u>? ☐ YES ☐ NO	10. Check any suggestions your provider made for handling side effects <u>for your chosen method</u>. Check all that apply ☐ TAKE YOUR PILL WITH MEALS OR AT BEDTIME ☐ TAKE THE PILL AT THE SAME TIME EVERY DAY ☐ TAKE IBUPROFEN ☐ SIDE EFFECTS SHOULD DECLINE OVER TIME ☐ OTHER_____ ___ (SPECIFY) ☐ NONE	11. Did your provider discuss possible warning signs that might indicate the need to stop your method such as severe abdominal pain? ☐ YES ☐ NO
12. **Check any & all** warning	13. Did your provider tell you	14. Did your provider tell you how

signs your provider discussed with you. ☐ ABDOMINAL PAINS ☐ CHEST PAINS ☐ HEADACHES ☐ EYE PROBLEMS ☐ SEVERE LEG PAIN ☐ OTHER_____ (SPECIFY) ☐ NONE	what to do if you experience warning signs? ☐ YES ☐ NO ☐ PROVIDER DID NOT DISCUSS WARNING SIGNS	to use your method? For example, did she say how often to take the pill or when to receive your next injection? ☐ YES ☐ NO

CLIENT PROVIDER INTERACTION

15. Did your provider greet you in a respectful and/or friendly way? ☐ YES ☐ NO	16. Did your provider ask you about your reproductive goals and plans? (**For example, did he or she ask how many children you would like to have and when?**) ☐ YES ☐ NO
17. Did your provider ask you if you had any questions? ☐ YES ☐ NO	18. Did the provider answer all of your questions? **ALL MYSTERY CLIENTS MUST ASK A QUESTION!** ☐ YES ☐ NO

PROVIDER COMPETENCE

19. Did your provider take your medical history? ☐ YES ☐ NO

FOLLOW UP MECHANISM

20. Did the provider tell you when to return for a follow-up visit? ☐ YES ☐ NO	21. If the provider told you when to return for a follow-up visit, did he/she give you something to help you remember your appointment like a reminder card? ☐ YES ☐ NO ☐ THE PROVIDER DID NOT TELL ME WHEN TO RETURN
22. Did your provider tell you what to do if you experience problems before your next visit? ☐ YES ☐ NO	23. Did your provider tell you where to go for resupplies? ☐ YES ☐ NO ☐ MY PREFERRED/CHOSEN METHOD DOES **NOT** REQUIRE RESUPPLY (IMPLANT OR IUCD)

APPROPRIATE CONSTELLATION OF SERVICES

24. Did your provider offer you any services in addition to family planning?	25. Check all services that the provider offered you. **Check all that apply.**
☐ YES ☐ NO	☐ ANTENATAL CARE ☐ DELIVERY SERVICES ☐ POSTNATAL CARE ☐ POST-ABORTION CARE ☐ GROWTH MONITORING ☐ CHILD IMMUNIZATION ☐ STI MANAGEMENT ☐ HIV/AIDS MANAGEMENT ☐ CURATIVE SERVICES ☐ HIV TESTING AND COUNSELLING ☐ OTHER _____ (SPECIFY) ☐ NONE

ADDITIONAL INFORMATION

26. What type of staff was your provider?	27. RECORD THE TIME IN 24 HOUR FORMAT
☐ PHYSICIAN ☐ NURSE ☐ COMMUNITY HEALTH EXTENSION WORKER ☐ VCT PROVIDER ☐ OTHER _____ (SPECIFY) ☐ DON'T KNOW	Hour Minutes ... ☐☐ ☐☐

COMMENTS

APPENDIX III. SIMULATED CLIENT PAPER

ORIGINAL RESEARCH ARTICLE

Simulated clients reveal programmatic factors that may influence contraceptive use in Kisumu, Kenya

Key message

Family planning clients face programmatic barriers to contraceptive use upon arrival at health care facilities. Improved monitoring and oversight of facility practices and examination of provider needs and motivations may increase contraceptive use.

ABSTRACT

A better understanding of the factors influencing use of family planning has the potential to increase contraceptive prevalence and improve the ability of women and their partners to freely choose the number and spacing of their children. Investigations into factors contributing to unmet need frequently rely on data collected using household surveys or interviews with family planning clients and providers. This research utilizes qualitative information resulting from simulated client visits to investigate programmatic barriers to contraceptive use in a sample of 19 health care facilities in Kisumu East District, a city in Western Kenya. Simulated client reports indicate deficiencies in provider competence as well as tenuous relations between providers and clients. In addition, simulated client data reveal occasional absences of providers during normal facility hours of operation and requests of informal fees for services. Trainings that address specific gaps in provider medical knowledge and counseling skills as well as client-provider relations may reduce programmatic barriers to contraceptive use. In addition, improved supervision and oversight at facilities may increase physical and financial access to services. Future research investigating provider motivations may illuminate root causes of programmatic barriers.

BACKGROUND

The life-saving benefits of family planning to both mother and child are well-established.[1-5] In the past twenty years alone maternal deaths in developing countries have been reduced by 40 percent in response to increased access to contraceptive services.[6] Yet, despite the success of many family planning programs in Asia and Latin America over the past 60 years, fertility rates in sub-Saharan Africa remain high.[1] At 5.2, the total fertility rate (TFR) for sub-Saharan Africa is more than twice the global average.[7-9] Those women who prefer to space or limit births but are not using any method of contraception are considered to have an unmet need for family planning.[10] A better understanding of the programmatic factors influencing contraceptive use may help to address the persistent unmet need in numerous African countries.

The evaluation of family planning programs in developing countries is frequently guided by frameworks first developed in the 1980s and early 1990s.[11, 12] Quality of care, hypothesized to be a key determinant of contraceptive use, is defined by the Bruce-Jain framework and includes six aspects: method choice, information, client relations, provider competence, follow-up mechanisms, and integration.[12] Access to services, sometimes referred to as availability, can refer to geographic or financial accessibility as well as the ability of potential clients to gain contact with service providers at facilities where they are seeking services;[11] access has also been found to be related to use or non-use of family planning.[13] Access to family planning services can be inhibited by certain provider practices such as use of excessively restrictive medical criteria or provider bias against certain methods; these practices are often referred to as medical barriers to family planning;[11, 14, 15] addressing medical barriers may facilitate improvements in quality of care.[11]

The quality of nationally sponsored family planning programs in Kenya was first assessed in 1989.[16] These national programs were implemented in Kenya in 1967 in response to high fertility rates and rapid population growth.[17, 18] The first evaluation of these programs provided evidence that government sponsored family planning programs, long criticized for "poor performance",[17] were beginning to show improvement in critical areas of service quality such as method choice and client treatment; however progress was lacking in discussion and management of contraceptive side effects as well as wait time and inquiry into the client's reproductive goals.[16, 17, 19] Only a handful of studies since 1989 have used facility-level data to measure family planning service delivery quality in Kenya at a national level; a 1995 study found improvements in discussion of side

effects[19] and a study using data from 2004 to compare public and private facilities found no differences in the technical capacity of service providers by facility type.[20]

While most investigations of facility-level factors influencing contraceptive use rely on data collected through provider and client interviews, this paper takes a less common approach by describing interactions between health care providers and *simulated* family planning clients.[21-29] The simulated client approach provides an unobtrusive means of collecting data about service delivery and is likely to provide more accurate data than approaches using client or provider interviews or third party observations.[26] The data presented here are part of a larger study conducted in the Kenyan city of Kisumu, located in a region with a TFR of 5.4.[30] The study design uses the simulated client methodology to test the validity of standard data collection instruments typically employed to measure family planning service quality and infrastructure at service delivery points. These standard instruments, collectively known as the Situation Analysis, include a facility audit, an observation guide, and questionnaires for interviewing family planning clients and service providers.[31, 32] As part of our validation study these standard instruments were employed at the same facilities where the simulated client method was used. Analysis of validation data is on-going. The objective of this paper is to share information provided by the simulated client method that would have gone unobserved if data collection had relied solely on the standard instruments.

METHODS

Data for this study were collected in 19 public and private health care facilities of medium to high volume located in Kisumu East District, Kenya in 2012. In the simulated client approach to facility-level data collection, a trained female data collector pretends to be a new family planning client at a health facility and undergoes a family planning counseling session. Following the counseling session, the simulated client records or reports her observations. For this study, six simulated female clients were hired and trained. Simulated clients ranged in age from 23 to 30, with parity ranging from 0 to 3 children. All six clients were assigned a "preferred method" of contraception to request from the provider which allowed investigators to examine provider practices across a range of methods. Three of the six simulated clients were assigned a preferred method of oral contraceptive pills (OCP). One was assigned a preferred method of injectables, one the intrauterine device (IUD), and one the contraceptive implant. See the simulated client profiles (Table 1) for additional information on the background characteristics of each simulated client. In addition to visits from simulated clients, all 19

selected facilities participated in a facility audit, third party observations, and interviews with exiting family planning clients and service providers.

Simulated clients assigned to prefer OCPs were trained to accept 1-3 packs of pills when offered. Those clients assigned to prefer injectables, the IUD, or the implant were trained to conclude their counseling session before such methods could be administered in order to avoid receiving unwanted procedures. A list of culturally appropriate and credible reasons for concluding services prior to receiving commodities was determined with input from all data collectors during the one-week training period. Some examples of credible reasons include:

- *I need to ask my husband first*
- *Let me go think about it*
- *I changed my mind, I just want the condom*
- *I don't have the money, let me go and come back*
- *I want to compare with another facility*

There were an estimated 108 providers offering family planning services at the 19 participating facilities. This study was designed so that each of these providers would be visited by one of the six simulated clients; however, many facilities schedule only one provider to offer family planning each month or each quarter (three months). As a result, it was not possible to collect simulated client data on all family planning providers at the 19 facilities during the study period. Multiple attempts were made to collect data on different providers by sending different simulated clients back to participating facilities; these repeat visits often resulted in multiple observations of the same provider, as seen in Table 2. Of the 52 providers reached in the study, 21 providers were visited just once. In ten of the 19 facilities, simulated clients succeeded in visiting all family planning providers working at the facility; in another two facilities, clients were able to visit all but one of the family planning providers. In the remaining seven participating facilities, simulated clients visited between 14 and 44 percent of the family planning providers. Approximately 56 family planning providers within selected facilities, or 52 percent of all estimated providers, were not visited by a simulated client. However, a majority of providers not visited by a mystery client were not providing family planning services or were off-duty during the study period.

The sample of 19 facilities was selected to include all medium (11) and high volume[8] (eight) health care facilities currently providing family planning services within Kisumu East District. These included both public (14) and private (five) facilities and all of the selected facilities also offered maternal and child health services and/or HIV-related services in addition to family planning services. Data collection took place between August 1-17 and Sept 17-28, 2012. The service providers included in the study are those who were providing services on the day a simulated client attended their facility.

Simulated clients recorded their observations soon after their counseling session with a short user-friendly and objective checklist. The checklist, informed in part by MEASURE Evaluation's Quick Investigation of Quality,[32] was designed to capture quantitative data on aspects of family planning service delivery quality, according to the Bruce-Jain framework.[12] In addition to this quantitative data, all six mystery clients had the opportunity to provide any additional information they observed while at the selected facility. This additional information, provided in both written and verbal format to the study principal investigator (and first author) in an unsolicited manner at the end of each day of data collection, provides in-depth insights for this paper; where appropriate in the paper, this information is supplemented with quantitative data from the simulated client checklist. All six simulated clients volunteered additional information, which was not restricted to any specific topic and was subsequently entered into a word document and organized into four emergent themes: interpersonal relations, provider competence, provider accessibility, and inappropriate charges to clients. It is important to note that the quotes provided in the results section are all drawn from this informal feedback, which was not collected in a systematic manner, and are therefore not representative of high/medium volume facilities in Kisumu.

Confidentiality was a key component of the ethics training received by the simulated clients during training. Each simulated client was required to sign a pledge of confidentiality upon completion of the training. Facility managers were aware of and supportive of the study. The University of North Carolina at Chapel Hill (UNC-Chapel Hill) and the Kenya Medical Research Institute (KEMRI) reviewed and approved the study protocol and informed consent process for this study.

[8] The volume of facilities was determined through conversations with local NGO staff and by visiting the potential facilities to determine the number of family planning clients serviced in the preceding week, according to the official patient registration log. Those facilities serving more than 10 family planning clients in one week were considered medium volume. Those serving more than 25 family planning clients in a week were considered high volume.

RESULTS

The six simulated clients completed a total of 134 visits with 52 providers (88 percent of which were female) at the 19 participating facilities. To our knowledge, providers did not identify simulated clients during their visit, although they may have been made aware of the potential for a simulated client visit by their facility supervisor, who consented to participate in the study. In one instance, a simulated client reported she thought her provider became suspicious because the provider brought additional staff into the examination room to observe the consultation and questioned the client's motivation to use a contraceptive method. Outside of this one event, all simulated clients reported that they felt confident the observed providers did not identify their true purpose.

Client provider interactions

In five out of the 134 simulated client visits, the client volunteered unsolicited feedback characterizing their provider as "friendly", "respectful", or "nice". These five voluntary reports of positive client interaction reference four providers (one provider received two positive reports) working at two public and two private facilities. Clients volunteering positive reports had expressed a preference to their provider to use either pills or implants. One client provided an account of a provider who did a good job discussing the different family planning options. Another client reported that their provider was very encouraging of the client's desire to begin a contraceptive method. The following demonstrates a provider taking steps to ensure client access to a method not currently available at their facility: *"Despite the fact that the method I wanted was not available in the facility, the provider managed to tell me more about the method I had chosen and she even made a call to the family planning team which was going around in various facilities to provide family planning services which were not available in those facilities."*

However, not all accounts of interactions with providers were positive. According to quantitative checklist data, providers failed to greet simulated clients in a respectful or friendly manner at 18 percent of visits; these 24 visits were spread across 13 different facilities, two of which are private, and 17 different providers. Sixteen of the 17 providers with a reportedly unfriendly manner were visited by more than one simulated client. Four of the 16 providers with multiple visits received more than one negative report; and in only one case did all simulated clients report independently that the provider was lacking in respect. Half of the negative reports came from clients assigned to prefer OCPs; this is not surprising given that half of the six simulated clients had this assignment. Unfriendly behavior was rarely reported by the implant (eight percent of all negative reports)

or the IUD client (also eight percent of all negative reports). Thirty-eight percent of negative reports came from the simulated client assigned to prefer injectable contraception; it is possible this is more a reflection of this client's age (24 years) than her preferred method.

All six simulated clients voluntarily mentioned rude or disrespectful treatment at some point by one or more service providers visited during the study. According to informal feedback, in two public facilities, a provider reportedly stated "family planning is not an emergency" in an effort to explain long wait times or to appease clients who could not be seen on the same day that they arrived. As one client reported, *"The provider was so rude… arrogant. Women were really complaining. The provider yelled at the clients and told them no one can challenge her on family planning. If she wanted to, she could tell everyone to just go home and come back another day. She said, 'I'm tired of injecting your buttocks every day.'"*

While one in five providers displayed reportedly negative attitudes towards clients (according to the quantitative checklist tool), with one provider going so far as to engaging in such behavior as shouting at clients (according to informal feedback), one provider harbored unfounded suspicions that impacted client access to desired methods. In this case, a simulated client seeking injectable contraception was strongly accused of coming to the facility knowing that she was pregnant, in the hopes that receiving an injection would induce an abortion. Due to this suspicion on the part of this provider at a public facility, the simulated client was not offered any family planning method.

Technical competence of service providers

According to a combination of quantitative checklist data and informal feedback, in ten percent of all simulated client visits (13 visits with ten different providers at eight public facilities), the service provider refused to offer the client their preferred method of contraception unless the client was able to provide physical evidence of current menstruation or was willing to take a pregnancy test (at an additional cost of 100 to 150 Kenyan Shillings; equivalent 1.18-1.76 USD). In the remaining 90 percent of simulated client visits, all clients were offered their preferred method or were referred to a facility where their method could be obtained. Of the 13 instances where unnecessary menstrual requirements were imposed, nine occurred with clients requesting OCPs, three during requests for injectable contraception, and in one instance with a client requesting the implant. In explaining this medical barrier, one mystery client reported, "*The provider advised me to go back (to the clinic) when on menses or to do a pregnancy test so as to prove there was no pregnancy*." In no instance did

any of these ten providers attempt to rule out pregnancy by another means, such as inquiring about unprotected intercourse since the client's last menstrual period. Clients unable to meet these requirements were instructed to return at their next menses or when they had funds for a pregnancy test. In most cases, clients who were turned away were not offered an alternative method, such as condoms, for use in the meantime. Interestingly, among those providers imposing menstrual requirements and with multiple simulated client visits, some did not impose these requirements for all hormonal types or all simulated clients; for example, two providers imposed menstrual requirements for OCPs but no other hormonal method while another imposed requirements only for injectable clients. Two of the providers refused to offer OCPs to some, but not all, of the simulated clients requesting this method without proof of menstruation or pregnancy test.

In addition to medically unnecessary menstrual requirements,[15, 33] several providers reportedly dispersed misinformation to clients. For example, one simulated client volunteered feedback that she was sometimes discouraged from using injectable contraception due to concerns about excessive delays in the time it takes the average client to return to fertility; more than one provider stated average return to fertility for a client discontinuing injectable contraception is two years or greater. In refusing to offer injectable contraception to a simulated client, one provider at a public facility stated "*the injection can't be given to someone who has not had kids.*" In another instance, a client visiting a private facility was provided misinformation by her provider about the IUD: *"My provider told me… payment depends on the type (of IUD), for example, one for 5 years costs 1,000 KSH, one for 10 years costs 2,000 KSH, one for 15 years costs 3,000 KSH*[9]*."* These different versions of the copper-bearing IUD do not exist.[34]

Simulated clients also volunteered information suggesting that at least three of the 44 providers visited by a mystery client at a public facility may not have been trained to deliver family planning services. For example, in one public facility, all six simulated clients were offered family planning services by a person volunteering as a mentor for HIV patients. At another public facility, staff members performing patient registration or lab work also provide family planning counseling when the facility is short-staffed. It was unclear whether these personnel had adequate training in provision of family planning methods to step into this role.

[9] 1,000 Kenyan Shillings = 11.76 USD; 2,000 Kenyan Shillings = 23.53 USD; 3,000 Kenyan Shillings = 35.29

Provider accessibility

Simulated clients frequently mentioned excessively long wait times, often due to large numbers of clients and few providers, which resulted in their inability to make contact with the targeted provider in the first attempt. For example, two simulated clients arrived on the same day at the same public facility shortly before 9am, waited until 4pm without receiving services, and were then asked to return another day. Another client arrived at a different facility at 11am and waited until closing without receiving services; she was also told to come back another day. In total, four simulated clients were turned away at the end of the day without receiving services after waiting most of the day; this occurred at three different facilities, one of which was private. Of those visits for which they were not turned away at the end of the day, simulated clients waited an average of three hours between arrival and departure at the facility (according to the checklist instrument) and, in 19 percent of visits, simulated clients waited five or more hours at the facility. Furthermore, those seen after an acceptable amount of wait time sometimes felt the provider unable to offer the necessary time and attention. As one client reported, *"The provider was in a hurry. She wanted to go for lunch and just counseled me in the hallway."*

In other cases, simulated clients mentioned that care was delayed because providers arrived late to the facility (some arriving as late as 12pm despite official opening times of 8am in all 19 facilities), or the facility opened late, or the provider did not return to the facility after their lunch break. This type of delayed care occurred on seven occasions, at seven different facilities, two of which were private. In cases where the provider did not return after lunch, the clients waited until closing time without ever receiving services. In one case, a client arrived at 2pm on a Friday and found the provider promptly, but the provider informed the client that she was tired and asked her to come back on Monday. The provider did not offer the client any contraceptive method, such as condoms, for protection over the weekend. The official closing time on Fridays at this facility is 5pm. Provider accessibility was also sometimes compromised by competing duties; in a facility where no other provider was at the facility that day, a simulated client reported "*The provider did not complete the service because she received a phone call telling her to go somewhere*." The client had to leave the facility without completing the family planning counseling session and without receiving any method of contraception.

Inappropriate charges to clients

In every three out of four simulated client visits where the client received one or more packs of OCPs (a total of 57 visits), the client was charged a fee greater than the price reported by the facility manager. Often the client was charged 50 Kenyan Shillings (approximately 0.59 USD) in a facility where the manager indicated pills are provided for free, including patient registration. In some cases (12 visits), other simulated clients attending the same facility but seeing a different provider were charged a different price or were not charged at all, indicating inconsistencies in fee collection within facilities. On two occasions the service provider refused to provide the client with a receipt and was observed putting the fee directly into their pocket while still in the closed door counseling or examination room. Of the 14 facilities engaging in informal fee collection, three are private facilities. Because simulated clients were unable to accept invasive or unwanted procedures (such as an injection, IUD, or implant) for ethical reasons, we were unable to ascertain whether inappropriate fees are charged for methods other than OCPs.

DISCUSSION

These data, resulting from 134 simulated client visits with 52 providers in 19 public and private facilities, provide information on family planning service provision in Kisumu East District as it would occur in the absence of a data collection team. Simulated clients reported rude or disrespectful treatment by a number of providers, including shouting and unfounded accusations, and clients reported being provided services by three potentially untrained staff. Medical barriers were also observed, including unnecessary menstrual requirements and misinformation resulting from provider bias against injectable contraception for nulliparous women. Simulated clients sometimes waited at a facility for an entire day without receiving services and were often charged fees for services greater than the price reported in the corresponding facility audit. Much of the information shared in this paper is similar to other studies using the simulated client method that found frequent implementation of menstrual requirements[21] and disrespectful treatment by providers.[22, 27, 28] Some informal information volunteered by the simulated clients, such as the garnering of informal fees and waiting most of the day at a facility without receiving any services, has not been seen in previous results from simulated client studies. The implications of this study are that service quality deficiencies, medical barriers, and access issues related to provider availability and inappropriate client charges may limit clients' ability to obtain the family planning services for which they come to health facilities. In addition, women who are treated with disrespect

and given misinformation may spread the word to others who might subsequently decide to not visit those facilities.

Regarding consistency of findings, there was no overall discernible pattern in the aspects of poor delivery across the participating facilities or providers. The facilities where providers were unfriendly or rude were not always the facilities where menstrual requirements were imposed or providers were absent. Notably, a facility in which a provider was twice characterized as encouraging and friendly by simulated clients was also one of the five facilities in which none of the providers engaged in collection of inappropriate client fees.

In considering the rights of clients to have access to high quality family planning services, free of unnecessary medical barriers, it is important to first think carefully about the rights and needs of family planning service providers. The ability to provide services in a technically competent manner depends on adequate training, updated technical information, necessary equipment and supplies, and appropriate guidance.[35] Respectful treatment of clients and consistent accessibility can be better ensured by providers with a manageable workload, timely and adequate pay, and respectful workplace practices.[35] Efforts to better understand the perspective, needs, and motivations of the service providers are essential for identifying root causes of poor service quality and may help to address quality of care deficiencies and medical barriers identified in this paper. As other researchers have pointed out, findings from quality of care studies are not meant to "attack" providers, who are often "doing what they think best for their clients";[14] therefore studies designed to capture provider perspectives should be a priority in client-centered programs.

Programmatic implications

The disrespectful manner reported in the checklist appears widespread, while the shouting and unfounded suspicions were less commonly mentioned by the simulated clients. However, both the quantitative and qualitative information from simulated clients regarding their interactions with facility staff suggest the need for additional training in counseling skills to improve interactions with clients. Even those providers with an impressive knowledge base regarding a variety of available family planning methods may fail to meet the contraceptive needs of their clients if they are engaging with clients in a rude or dismissive manner.

The presence of medical barriers may also impede client access to family planning methods. Requiring evidence of menstruation or requiring a pregnancy test before proving family planning is a common barrier. Those women who cannot afford a pregnancy test and must wait until their next menses to receive a method are at risk

of an unintended pregnancy in the interim. According to the World Health Organization, hormonal methods pose no medical danger to women or their pregnancy if accidentally used while pregnant (with the exception of the intra-uterine device; this method should not be inserted during pregnancy).[36] Those providers wishing to be reasonably certain their client is not pregnant can use a simple job aid developed by FHI360: the Pregnancy Checklist.[37] Training providers on consistent and proper use of the pregnancy checklist, in facilities where pregnancy tests are not freely available, has the potential to increase contraceptive uptake.[38]

The provision of misinformation to clients resulting from provider bias is another medical barrier to accessing family planning methods revealed in this study. The average delay in return to fertility for women using Depo-Provera is nine months after their last injection.[39, 40] Providers who mistakenly believe that average return to fertility for injectable contraception is two or more years may deny or discourage use of this highly effective method in younger, childless, or low-parity women. This study also revealed the possibility of unqualified staff members providing family planning counseling on occasions where the volume of clients could not be met by available providers. Such practices could potentially result in harm to the client if these staff members have not been trained in family planning provision.

It is important to ensure that providers arrive on time and are committed to providing services during the facility's posted hours of operation. It may be beneficial to reduce the number of legitimately competing priorities that pull providers away from their facilities during peak hours of service delivery. In addition, creating a more rigorous system of management and supervision may help to ensure that providers are not frequently away on personal business during working hours.

Lastly, this study reveals an informal fee structure that suggests possibly corrupt behavior on the part of some providers which could create financial barriers to contraceptive services, particularly among low-income clients. Forty percent of Kenyans currently live on less than two US dollars per day.[41] Therefore even a small informal fee of 0.59 US dollars may constitute a significant portion of income for the average family planning client. The informal fee structure revealed in this study appears to be fairly widespread for OCPs among the facilities included in the study; implementing mechanisms such as receipt books or publicly displayed prices to help discourage corruption may lead to increased contraceptive use.

Limitations

The simulated client method allows the researcher to collect data on actual practice that would be difficult to obtain through other means. However, this method is not without limitations. First, there is the possibility of poor recall or subjective interpretation on the part of the simulated client. To address this concern, the six simulated clients who collected the data for this study participated in extensive training and pilot testing of their data collection instruments. All records and reports from each visit to a participating facility were submitted to the study principal investigator on the same day as the visit and opportunities for clarification or elucidation were provided as needed. A second challenge with this methodology is the recruitment of simulated clients who realistically represent different sections of the population including residents of areas with slum-like conditions. All six simulated clients were residents of Kisumu East District and resided in the catchment area of one or more of the facilities included in the study. An additional limitation of the simulated client method is the one-sided perspective of this approach to data collection. While the methodology allows for unobtrusive observation of provider performance, it does not consider the perspective of the provider or deficiencies in training, infrastructure, supervision, or other general areas of support that may be lacking in the provider's work environment.[35] Lastly, it is important to note that, given the design of the study, it's not possible to generalize these findings to all health care providers or facilities in Kisumu East District. However, many of the practices reported above are happening in one or more facilities and therefore warrant examination and further attention.

CONCLUSION

The simulated client method allows researchers to collect data on service delivery practices as they occur naturally, in the absence of data collectors and research staff, and therefore can provide critical insights into aspects of care that may limit contraceptive use. Much of the quantitative and qualitative information supplied by the simulated clients in this study would have been difficult or impossible to collect via facility audits, third party observations, or interviews with clients and staff. The results point to important issues around quality of care, medical barriers, and provider and financial access that may be impeding use of family planning services among potential clients. A larger and more systematic simulated client study would reveal whether some of the practices identified in this paper are widespread or isolated among a few providers or facilities. Increased training and heightened supervision of providers is one possible solution to the programmatic issues presented in this paper; however, a better understanding of provider needs and motivations will also be key to

understanding the root causes of barriers to contraceptive use. Addressing these barriers not only has the potential to reduce maternal and infant mortality, but also is an important step in safeguarding women's reproductive rights.

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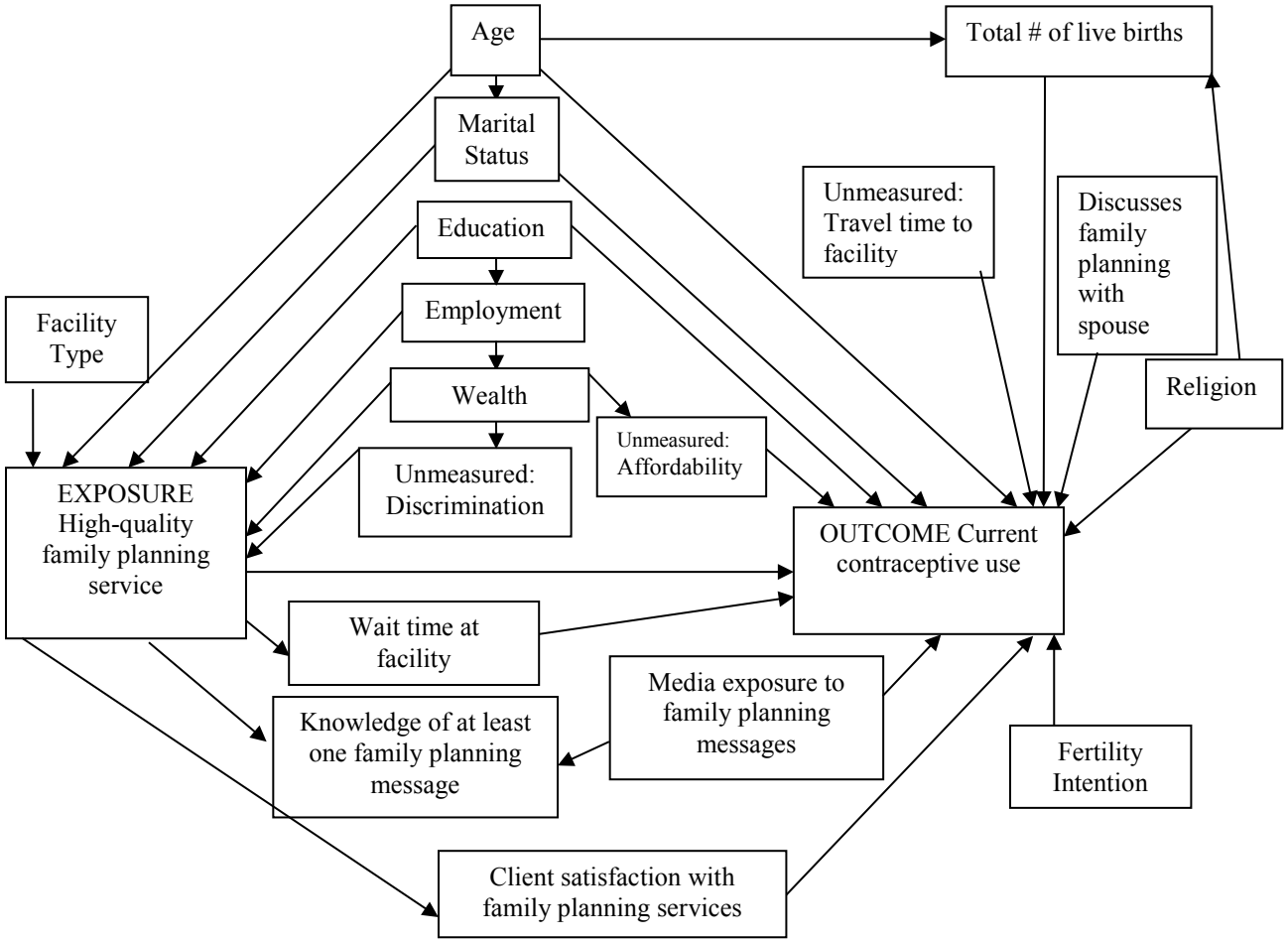
APPENDIX IV. FIGURES AND TABLES

Figure A1. Directed Acyclic Graph (DAG) for the relationship between quality of family planning services and contraceptive use among women of reproductive age (15-49) in urban Kenya, 2010



The *sensitivity* of a test or survey instrument relates information about the ability of the tool to accurately identify a true positive outcome (Fletcher and Fletcher, 2012). The *negative predictive value (NPV)* represents the proportion of providers not engaging in a specific behavior, out of all providers reporting that they do not do so (Fletcher and Fletcher, 2012).

Table A1.

Comparing Results of Simulated Client Visits and Provider Interviews in the Measurement of Quality-of-Care Indicators among 49 Family Planning Service Providers; data collected in 19 health facilities in Kisumu, Kenya 2012

	Simulated Clients	Provider Interviews	Percent Agreement (95% CI)		Sensitivity (95% CI)		Specificity (95% CI)		Predictive Value				Likelihood Ratio	
									+		-		+	-
CHOICE														
Provider discussed 2+ methods with client	96%	98%	94%	(83, 99)	98% (46/47)	(89, 100)	NA* (n=2)	---	96% (46/48)	(86, 100)	NA* (n=1)	---	NA*	NA*
Provider asked the client their preferred method	98%	61%	63%	(48, 77)	63% (30/48)	(47, 76)	NA* (n=1)	---	100% (30/30)	(88, 100)	5% (1/19)	(0, 26)	NA*	NA*
INFORMATION														
Provider helped the client select a method	67%	82%	53%	(38, 68)	76% (25/33)	(58, 89)	6% (1/16)	(0, 30)	63% (25/40)	(4, 77)	11% (1/9)	(0, 48)	0.8	4.0
Provider discussed side effects	67%	82%	61%	(46, 75)	82% (27/33)	(65, 93)	19% (3/16)	(4, 46)	68% (27/40)	(51, 81)	33% (3/9)	(8, 70)	1.0	0.9
Provider discussed warning signs	6%	18%	80%	(66, 90)	NA* (n=3)	---	83% (38/46)	(69, 92)	11% (1/9)	(0, 48)	95% (38/40)	(83, 99)	NA*	NA*
Provider told client how to use selected method	73%	51%	49%	(34, 64)	50% (18/36)	(33, 67)	46% (6/13)	(19, 75)	72% (18/25)	(51, 88)	25% (6/24)	(10, 47)	0.9	1.1
RELATIONS														
Provider asked the client their reproductive goals	6%	51%	51%	(36, 66)	NA* (n=3)	---	50% (23/46)	(35, 65)	8% (2/25)	(1, 26)	96% (23/24)	(79, 100)	NA*	NA*
FOLLOW-UP MECHANISM														
Provider told client when to return for resupply/follow-up	78%	59%	45%	(31, 60)	53% (20/38)	(36, 69)	18% (2/11)	(2, 52)	69% (20/29)	(49, 85)	10% (2/20)	(1, 32)	0.6	2.6

* Test characteristics not estimated if based on 5 or fewer observations

Table A2.

Comparing Results of Simulated Client Visits and Third-Party Observations in the Measurement of Quality-of-Care Indicators among 44 Family Planning Service Providers; data collected in 19 health facilities in Kisumu, Kenya, 2012

	Simulated Clients	Third Party Observations	Percent Agreement (95% CI)	Sensitivity (ratio) (95% CI)	Specificity (ratio) (95% CI)	Predictive Value (ratio) (95% CI)		Likelihood Ratio	
						+	-	+	-
CHOICE									
Provider discussed 2+ methods with client	95%	89%	84 % (70, 93)	88% (37/42) (74, 96)	NA* (n=2) ---	95% (37/39) (83, 99)	NA* (n=5) ---	NA *	NA *
Provider asked the client their preferred method	98%	98%	95 % (85, 99)	98% (42/43) (88, 100)	NA* (n=1) ---	98% (42/43) (88, 100)	NA* (n=1) ---	NA *	NA *
INFORMATION									
Provider helped the client select a method	64%	98%	61 % (46, 76)	96% (27/28) (82, 99)	0% (0/16) (0, 21)	63% (27/43) (47, 77)	NA* (n=1) ---	1.0	NA **
Provider discussed side effects	66%	80%	64 % (48, 78)	83% (24/29) (64, 94)	27% (4/15) (8, 55)	69% (24/35) (51, 83)	44% (4/9) (14, 79)	1.1	0.6
Provider discussed management of side effects	45%	52%	52 % (37, 68)	55% (11/20) (32, 77)	50% (12/24) (29, 71)	48% (11/23) (27, 69)	57% (12/21) (34, 78)	1.1	0.9
Provider discussed warning signs	2%	7%	95 % (85, 99)	NA* (n=1) ---	95% (41/43) (84, 99)	NA * (n=3) ---	100% (41/41) (91, 100)	NA *	NA *
Provider discussed what to do if warning signs occur	2%	7%	95 % (85, 99)	NA* (n=1) ---	95% (41/43) (84, 99)	NA * (n=3) ---	100% (41/41) (91, 100)	NA *	NA *
Provider told client how to use selected method	73%	73%	59 % (43, 74)	72% (23/32) (53, 86)	25% (3/12) (6, 57)	72% (23/32) (53, 86)	25% (3/12) (6, 57)	1.0	1.1
RELATIONS									
Provider treated client with respect	89%	100%	89 % (75, 96)	100% (39/39) (91, 100)	NA* (n=5) ---	89% (39/44) (75, 96)	NA* (n=0) ---	NA *	NA *
Provider asked the client their reproductive goals	2%	41%	57 % (41, 72)	NA* (n=1) ---	58% (25/43) (42, 73)	0% (0/18) (0, 19)	96% (25/26) (80, 100)	NA *	NA *
Provider asked the client if they have any questions	34%	61%	45 % (30, 61)	60% (9/15) (32, 84)	38% (11/29) (21, 58)	33% (9/27) (17, 54)	65% (11/17) (38, 86)	1.0	1.1
TECHNICAL COMPETENCE									
Provider took the client's medical history (n=43)	12%	12%	86 % (72, 95)	NA* (n=5) ---	92% (35/38) (79, 98)	NA* (n=5) ---	92% (35/38) (79, 98)	NA *	NA *
FOLLOW-UP MECHANISM									
Provider told client when to return for resupply/follow-up (n=43)	79%	74%	63 % (47, 77)	74% (25/34) (56, 87)	22% (2/9) (3, 60)	78% (25/32) (60, 91)	18% (2/11) (2, 52)	0.9	1.2
Provider gave client an appointment/reminder card	36%	66%	39 % (24, 55)	56% (9/16) (30, 80)	29% (8/28) (13, 49)	31% (9/29) (15, 51)	53% (8/15) (27, 79)	0.8	1.5

Provider told the client what to do if they experience problems (n=41)	27%	76%	37 %	(22, 53)	73% (8/11)	(39, 94)	23% (7/30)	(10, 42)	26% (8/31)	(12, 45)	70% (7/10)	(35, 93)	0.9	1.2
Provider told the client where to go for resupply (n=14)***	64%	79%	57 %	(29, 82)	78% (7/9)	(40, 97)	NA* (n=5)	---	64% (7/11)	(31, 89)	NA* (n=3)	---	NA *	NA *
INTEGRATATION														
Provider offered client services in addition to family planning	11%	61%	41 %	(26, 57)	NA* (n=5)	---	38% (15/39)	(23, 55)	11% (3/27)	(2, 29)	88% (15/17)	(64, 99)	NA *	NA *

* Test characteristics not estimated if based on 5 or fewer observations

** As specificity approaches zero, the negative likelihood ratio approaches infinity

*** Sample size is smaller for this indicator as long-acting methods do not require re-supply in the short-term and therefore are not included in the denominator

Table A3.

Comparing Results of Simulated Client Visits and New Client Exit Interviews in the Measurement of Quality-of-Care Indicators among 31 Family Planning Service Providers; data collected in 19 health facilities in Kisumu, Kenya, 2012

	Simulated clients	New Client Exit Interviews	Percent Agreement (95% CI)		Sensitivity (ratio) (95% CI)		Specificity (ratio) (95% CI)		Predictive Value (ratio) (95% CI)				Likelihood Ratio	
									+		-		+	-
CHOICE														
Provider discussed 2+ methods with client	97%	81%	77%	(59, 90)	80% (24/30)	(61, 92)	NA* (n=1)	---	96% (24/25)	(80, 100)	0% (0/6)	(0, 46)	NA*	NA*
Provider asked the client their preferred method	97%	97%	93%	(77, 99)	96% (27/28)	(82, 100)	NA* (n=1)	---	96% (27/28)	(82, 100)	NA* (n=1)	---	NA*	NA*
INFORMATION														
Provider helped the client select a method	61%	32%	45%	(27, 64)	32% (6/19)	(13, 57)	67% (8/12)	(35, 90)	60% (6/10)	(26, 88)	38% (8/21)	(18, 62)	1.0	1.0
Provider discussed side effects	61%	87%	61%	(42, 78)	89% (17/19)	(67, 99)	17% (2/12)	(2, 48)	63% (17/27)	(42, 81)	NA* (n=4)	---	1.1	0.6
Provider told client how to use selected method	68%	87%	68%	(49, 83)	90% (19/21)	(70, 99)	20% (2/10)	(3, 56)	70% (19/27)	(50, 86)	NA* (n=4)	---	1.1	0.5
RELATIONS														
Provider treated client with respect	87%	100%	87%	(70, 96)	100% (27/27)	(87, 100)	NA* (n=4)	---	87% (27/31)	(70, 96)	NA* (n=0)	---	NA*	NA*
Provider asked the client their reproductive goals	0%	77%	23%	(10, 41)	NA* (n=0)	---	23% (7/31)	(10, 41)	0% (0/24)	(0, 14)	100% (7/7)	(59, 100)	NA*	NA*
Provider asked the client if they have any questions	35%	84%	45%	(27, 64)	91% (10/11)	(59, 100)	20% (4/20)	(8, 44)	38% (10/26)	(20, 59)	NA* (n=5)	---	1.1	0.5
FOLLOW-UP MECHANISM														
Provider told client when to return for resupply/follow-up (n=30)	80%	93%	73%	(54, 88)	92% (22/24)	(73, 99)	0% (0/6)	(0, 46)	79% (22/28)	(59, 92)	NA* N=2)	---	0.9	NA**
Provider told the client what to do if they experience problems	32%	84%	35%	(19, 55)	80% (8/10)	(44, 98)	14% (3/21)	(3, 36)	31% (8/26)	(14, 52)	NA* (n=5)	---	0.9	1.4
INTEGRATE														
Provider offered client services in addition to family planning	13%	74%	32%	(17, 51)	NA* (n=4)	---	26% (7/27)	(11, 46)	13% (3/23)	(3, 34)	88% (7/8)	(47, 100)	NA*	NA*

* Test characteristics not estimated if based on 5 or fewer observations

** As specificity approaches zero, the negative likelihood ratio approaches infinity

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