

REACHING PROVIDERS IS NOT ENOUGH TO INCREASE IUD USE: A FACTORIAL EXPERIMENT OF ‘ACADEMIC DETAILING’ IN KENYA

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Summary. Although the IUD is an extremely effective and low-cost contraceptive method, its use has declined sharply in Kenya in the past 20 years. A study tested the effectiveness of an outreach intervention to family planning providers and community-based distribution (CBD) agents in promoting use of the IUD in western Kenya. Forty-five public health clinics were randomized to receive the intervention for providers only, for CBD agents only, for both providers and CBD agents, or no detailing at all. The intervention is based on pharmaceutical companies’ ‘detailing’ models and included education/motivation visits to providers and CBD programmes, as well as provision of educational and promotional materials. District health supervisors were given updates on contraceptives, including the IUD, and were trained in communication and message development prior to making their detailing visits. Detailing only modestly increased the provision of IUDs, and only when both providers and CBD agents were targeted. The two detailing visits do not appear sufficient to sustain the effect of the intervention or to address poor provider attitudes and lack of technical skills. The cost per 3·5 years of pregnancy protection was US\$49·57 for the detailing intervention including the cost of the IUD, compared with US\$15·19 for the commodity costs of the current standard of care – provision of the injectable contraceptive depot-medroxyprogesterone acetate (DMPA). The effectiveness of provider-based activities is amplified when concurrent demand creation activities are carried out. However, the cost of the detailing in comparison to the small number of IUDs inserted indicates that this intervention is not cost-effective.

Introduction

Intra-uterine device (IUD) use (in this paper, the Copper T380A) remains low in many countries, particularly sub-Saharan Africa, despite its effectiveness and high

rates of satisfaction among users (Sekadde-Kigundu *et al.*, 1996; Grimes & Hubacher, 1998). Because of its long-term effectiveness, the cost of the IUD to the health care system is lower than any other method, including permanent sterilization (Trussell *et al.*, 1995). One of the main obstacles to IUD use seems to be provider attitudes and practices. Research in several countries has demonstrated that while providers generally are positive about the method in theory, in practice they do not mention the IUD to clients as frequently as they do other methods. In addition, myths about the IUD continue to circulate in communities, causing mistrust of the method among many potential clients (Shelton *et al.*, 1992; Stanback & Omondi-Odhiambo, 1995; Gaffikin *et al.*, 1998; Katz *et al.*, 2002; Brambila & Taracena, 2003; Gyapong *et al.*, 2003; Nguer & Reynolds, forthcoming).

Although IUD use comprised 31% of total modern contraceptive use in Kenya in 1984, in 2003 only 8% of modern contraceptive users in Kenya used this method (NCPD-CBS & MI, 1985, 1999, 2004). The Kenyan Ministry of Health (MOH) initiated a programme to reintroduce the IUD in an effort to expand client contraceptive choice and improve the financial sustainability of its family planning programme. As part of the IUD Reintroduction Initiative, the MOH and Family Health International (FHI), along with other partners, designed an operations research study to test an intervention for increasing the uptake of the IUD in Kenya.

The objectives of the study were: (1) to determine whether an educational outreach intervention ('detailing') for clinic-based providers and community-based distribution (CBD) agents had a positive impact on (a) provider and CBD agent knowledge, attitudes and self-efficacy regarding the IUD and (b) IUD use in study sites; and (2) to determine the costs and cost-effectiveness of implementing the intervention. The term 'detailing' describes an intervention wherein a role model or 'champion' makes outreach visits to service delivery points to educate, motivate and facilitate a desired activity (in this case, increased promotion of the IUD) (Soumerai & Avorn, 1990). First used as a marketing tool in the pharmaceutical industry, detailing has shown promise as a means of improving provider practices in public health interventions (Davis *et al.*, 1995; Fender *et al.*, 1999; Goldstein *et al.*, 2003; O'Brien *et al.*, 2003; Simon *et al.*, 2005). This study's hypothesis was that individual provider and CBD agent knowledge and attitudes about the IUD would improve as a result of the detailing intervention and that this would lead to an increase in IUD uptake in the study sites.

Methods

The intervention and study took place in Western Province, Kenya. Western Province is an underserved area of the country, where a large, integrated reproductive health intervention – the AMKENI project – is currently taking place in some facilities. Some study sites are included in the AMKENI project, but participation was controlled for in the analysis.

Study procedures

The study used an experimental pre/post-test factorial design to test the effectiveness of the 'detailing' intervention among both clinic-based providers and

Table 1. Number of sites by factorial study design intervention assignments

	AMKENI sites			Non-AMKENI sites		
	CBD detailing	No CBD detailing	Total	CBD detailing	No CBD detailing	Total
Provider detailing	5	5	10	6	6	12
No provider detailing	5	5	10	7	6	13
Total	10	10	20	13	12	25

CBD agents. A factorial experiment tests ‘the effect of more than one treatment (factor) using a design that permits an assessment of interactions between the treatments,’ (D’Agostino & Russell, 1998). In this case the two treatments were the two target populations within the study sites: clinic providers and CBD agents.

Study sites were public sector rural health facilities with family planning programmes in five districts. Contraceptive methods are provided free of cost at public sector facilities. Forty-five facilities were selected using the following criteria: (1) family planning staff trained in IUD insertion and removal, and (2) MOH/GTZ (Gesellschaft für Technische Zusammenarbeit) CBD programme attached to the facility. Facilities were screened for eligibility, stratified based on whether they were AMKENI sites or not and then randomly assigned to four study arms, receiving the intervention in neither, one or both target groups (Table 1). The planned sample size of 20 clinics per study arm was selected to have at least 80% power to detect a 5% difference in IUD use between arms under type I error rate $\alpha=0.05$ with the assumption of at least 0.5 correlation between outcomes at the pre- and post-intervention and no interaction between factors.

Research assistants visited each facility twice, at baseline and follow-up, and collected monthly service statistics for 12 months (Jan–Dec 2004) using the daily family planning (FP) activity logs routinely kept in each study site. All clinic-based FP providers were interviewed regarding their knowledge and attitudes about the IUD during baseline and follow-up surveys. Due to their larger numbers, the study interviewed a random sample of CBD agents at each facility. The sample was selected from a complete list of CBD agents assigned to each facility using a random numbers table. The target number of CBD agents to be interviewed in each facility was fifteen, based on time constraints; however, not all study sites had fifteen active CBD agents. The CBD agents selected to participate in the study were requested to report to the facility on one of the two days that research assistants were there to interview the FP providers.

This study was reviewed and approved by the Protection of Human Subjects Committee at FHI and by the Kenyatta National Hospital Ethics and Research Committee in Nairobi. None of the participants in the intervention (providers or CBD agents) received incentives to participate in this study; however, CBD agents did receive a small transportation allowance since they were asked to come to the facility specifically to answer a questionnaire.

Design of the intervention

The detailing intervention included education/motivation visits to clinic providers and CBD agents, as well as provision of information, education and communication (IEC) and promotional materials (key rings, badges and pens). By addressing provider and CBD agent concerns and questions, the intervention was designed to encourage these target groups to spend more time talking to clients about IUDs and consequently increase the number of clients choosing the IUD as their contraceptive method.

The intervention was created in collaboration with the MOH to utilize existing systems and facilitate replicability and sustainability. One 'detailer' was selected by the District Health Management Teams in the five participating districts. Detailers were district public health nurses or their deputies, who are responsible for supervising the quality of care in all health facilities in their districts. During a five-day training workshop, detailers were updated on family planning methods, emphasizing new evidence and eligibility criteria for the IUD (TCu-380A), and were trained in the communication and targeted messaging techniques they were expected to use when detailing about the IUD. On the fifth day of the workshop, detailers visited non-study facilities to practise their detailing messages in front of providers and CBD agents.

Detailers made two visits to FP providers in health clinics and to CBD agents engaged in community-based distribution programmes to educate and motivate them about the IUD. The short duration of the intervention was chosen to more easily fit into the already crowded work activities of district public health nurses and in the hopes that a small push on IUD promotion would translate into larger gains. The detailers held group discussions with all providers and CBD agents in intervention clinics to discuss issues related to the IUD: for example, obstacles to its use, its advantages and disadvantages, myths and misconceptions held by clients and its use in HIV-positive clients. Detailers also distributed two MOH-created pamphlets (one on all FP methods and one specifically on the IUD) to providers and CBD agents to use to educate their clients and promotional items such as key chains, badges and pens, embossed with the IUD Reintroduction Initiative motto: 'A new look at IUDs'.

Outcome measures

Intra-uterine device uptake was the primary outcome measure and was collected from daily FP logs in the study sites. Research assistants collected both the total number of IUDs provided per month in each clinic, as well as the proportion of IUDs relative to the total number of FP clients served each month. Because FP service provision numbers tend to vary from month to month, three-month averages were used in the analyses. The baseline average was taken from January–March 2004 and the follow-up period was October–December 2004. Condom clients were excluded from the denominator of the proportion as most of them also received another FP method and so would have been double-counted. Exposure to the intervention at the individual respondent level was measured by asking providers and CBD agents in all facilities at follow-up if they had heard a detailing presentation about the IUD.

To measure the effects of the detailing intervention on individuals in the target groups, provider and CBD respondents were read a series of statements designed to evaluate their knowledge about and attitudes towards the IUD during interviewer-administered face-to-face interviews. For example, one of the attitude statements was, 'I would recommend the IUD to a friend or family member'. An example of a knowledge statement is 'After an IUD is removed, a woman can get pregnant again right away'. Several statements were also posed to determine the respondents' sense of self-efficacy with regard to counselling about and providing the IUD. For each statement, respondents were asked to respond either true/false or agree/disagree. In some cases, providers and CBD agents were given different statements, based on the assumed level of their knowledge and specific issues that applied to one target group but not the other. Altogether, CBD agents responded to eight knowledge and eleven attitude statements and providers responded to eleven knowledge, ten attitude and nine self-efficacy questions.

All financial costs were collected during the project. No study-related or start-up costs were considered in the cost-effectiveness analysis, since they would not be necessary for a replication of the detailing intervention. Regular salary costs were excluded from the calculations, since it was assumed that current MOH staff members would perform the detailing intervention as part of their normal supervisory duties, incurring little additional staff time.

Statistical analysis

To analyse the effect of the detailing intervention, multivariate ordinary least squares (OLS) models were created which allowed the differential effects of the intervention to be examined while holding other effects constant. Both the proportion of all FP clients who received the IUD and the total numbers of IUDs provided were tested as outcome measures. The interaction effect of detailing at a study site for both target groups and the main effects of detailing at study sites were examined for either providers or CBD agents. Statistical significance was considered $p < 0.05$. A confounding factor was defined as any variable that, by its exclusion from the model, resulted in a change in the primary estimates of effect of 10% or greater.

Primary analyses used intention-to-treat principles. All study sites, providers and CBD agents attached to study sites that were assigned to an active intervention arm were assumed to have been exposed to detailing, regardless of whether they attended the talks or not. A post-hoc sensitivity analysis was also conducted using participant responses as evidence of whether the respondents in each facility were exposed to the detailing intervention.

Cost-effectiveness analyses compare the gains associated with a health intervention with the costs and cost savings associated with implementing the intervention. The cost-effectiveness ratio was calculated as the cost of each projected additional IUD provided associated with the detailing intervention. In order to put this ratio in context, a cost-effectiveness ratio was calculated for the 'standard of care' – the injectable contraceptive depot-medroxyprogesterone acetate (DMPA). This was chosen as the comparison because it is the most commonly used modern contraceptive in Kenya (NCPD-CBS & MI, 2004). The assumption was made that the IUD will be

used for 3·5 years, the standard conversion factor for this method, and therefore that one IUD provides the same protection as fourteen injections of DMPA. The costs associated with provider time were ignored as provision of the IUD and provision of DMPA are likely to require similar amounts of time over the 3·5-year time period; while it takes a relatively longer time to insert the IUD, providers will attend to DMPA clients at many more clinic visits.

Results

During baseline data collection research assistants conducted interviews with 131 clinic-based FP providers and 480 CBD agents. At follow-up, 120 providers and 402 CBD agents were interviewed. Every attempt was made to speak to the same providers and CBD agents at the follow-up interviews, and the interviewers succeeded in re-interviewing 83·8% of the CBD agents at follow-up. The CBD agents had pre-existing code numbers that could be used to match their responses at pre- and post-test data collection. It was not possible to match identities of providers between baseline and follow-up. However, 10% of provider respondents at follow-up said they had been working in that facility for less than a year, so it is certain that at least some providers were interviewed at follow-up who did not contribute information at baseline.

IUD uptake

In all, the 45 health facilities in the study provided 281 IUDs during the baseline period (Jan–Mar 2004) and 234 in the three months of follow-up data collection (Oct–Dec 2004). The median total number of FP clients per month per facility increased slightly from 151 (mean: 206; range: 208–3052) to 154 (233; 117–3631). This comparison does not take into account the different number of working days in each month; December is generally a month with at least one week of holiday. Overall, the provision of IUDs was highly variable from facility to facility. At baseline, 48·9% of facilities reported no IUD insertions and at follow-up 35·6% of facilities reported no IUD insertions. The average percentage of all family planning clients who accepted IUDs in each month increased from 0·1% at baseline to 0·4% at follow-up.

Both participation in the AMKENI project and the level of baseline provision of IUDs contributed significant confounding and were retained in the multivariate model. When controlling for these confounders in a linear multivariate regression model, the detailing intervention resulted in a small increase in the number of IUDs provided when both clinic-based providers and CBD agents were targeted. There was no significant change in IUD provision when only one target group received the detailing intervention, as compared with study sites where no detailing took place (Table 2). The effect of targeting both clinic-based providers and CBD agents was estimated to increase IUD provision by 1·0% per quarter per facility, or by 6·5 IUDs per quarter per facility. The estimates of effect for the change in the number of IUDs provided when both target groups received detailing was statistically significant ($p < 0·05$). However, the change in percentage was not statistically significant and did not achieve the 5% increase defined as programmatically significant in the sample size

Table 2. Factors associated with change in number and proportion of IUD users by intervention arm, Jan–Mar 2004 to Oct–Dec 2004^a

	Change in percentage of all FP clients receiving IUD per quarter (n=45)		Change in number of IUDs provided per quarter (n=45)	
	Estimate	95% CI ^b	Estimate	95% CI ^b
No detailing	0.2	−0.6, 1.0	0.9	−3.8, 5.7
Providers only received detailing	0.0	−1.0, 1.1	−0.5	−6.7, 5.8
CBD agents only received detailing	−0.2	−1.1, 0.8	−0.1	−6.1, 5.9
Both providers and CBD agents received detailing	1.0**	−0.0, 2.0	6.5*	0.3, 12.7

^aAdjusted for baseline level of IUD provision and participation in AMKENI project.

^bConfidence interval.

* $p < 0.05$; ** $p < 0.10$.

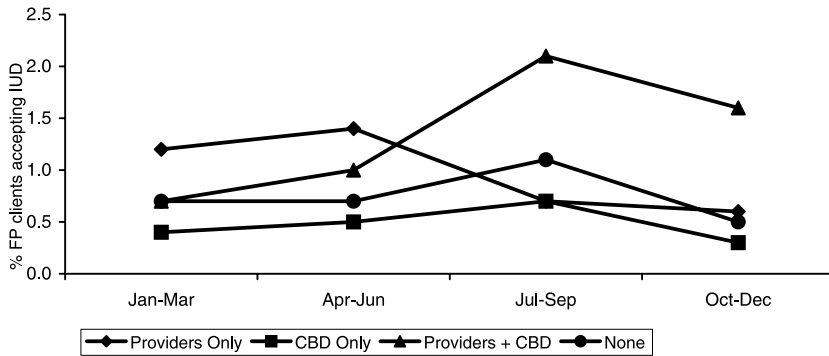


Fig. 1. Average quarterly percentage of all family planning clients accepting IUD by intervention arm (unadjusted), 2004.

calculations. Differences among districts and the effects of access to essential supplies were not important predictors of IUD or statistically significant confounders and so were excluded from the model (data not shown).

Figure 1 shows the unadjusted proportions of IUD uptake among all family planning clients for each study arm. The detailing visits took place in June and July. Immediately thereafter, the proportion of FP clients initiating IUD use increased in clinics receiving detailing among both clinic-based providers and CBD agents. This increase declined after the intervention although it remained elevated compared with baseline. Data after December 2004 have not yet been collected to determine if any increase was sustained over a longer period of time.

Table 3. Exposure to detailing intervention by intervention arm assignment

Heard detailing intervention?	Providers (n=120)				CBD agents (n=402)			
	Assigned to receive detailing		Not assigned to receive detailing		Assigned to receive detailing		Not assigned to receive detailing	
	No.	%	No.	%	No.	%	No.	%
Yes	44	50.6	10	30.3	186	87.7	32	16.8
No	43	49.4	23	69.7	26	12.3	158	83.2
Total	87	100	33	100	212	100	190	100

Note: intervention contamination in bold.

Exposure to the intervention

Among those providers who were in facilities assigned to receive the detailing intervention, only 50.6% (44/120) reported having heard the detailing presentation. Among targeted CBD agents, the exposure was higher at 87.7% (186/212). Among those providers *not* assigned to receive the detailing intervention, 30.3% said that they had heard the detailer and among CBD agents *not* assigned the intervention, 16.8% said they heard the detailer's presentation (Table 3). Thus some respondents who were meant to serve as controls were unexpectedly exposed to the intervention while some in the intervention study arms reported not receiving the intervention. When the analysis was repeated with the intervention arms reassigned by reported exposure to the intervention, no significant change in the results was found (data not shown).

The nationwide IUD Reintroduction Initiative took place at the same time as the study and approximately 30% of all respondents (33/120 providers, 128/402 CBD agents) reported that they had received training or education about the IUD from a source other than the detailer in the past six months. Exposure to other sources of information about the IUD did not differ by study arm.

Knowledge, attitudes and self-efficacy

Knowledge about specific aspects related to the IUD at baseline was relatively high – over 60% on average for both providers and CBDs (Table 4). Even starting at a high baseline level, knowledge increased among both providers and CBD agents who received the detailing intervention but remained fairly stagnant in the control arm. Positive attitudes also increased in the intervention study arm, but by smaller amounts. At baseline only half of respondents agreed that unmarried women could use IUDs and most respondents were strongly opposed to nulliparous women using IUDs. These attitudes grew more positive following the intervention, but generally remained negative.

Providers were asked questions about their comfort level in counselling about, inserting and removing IUDs. At baseline, positive self-efficacy for IUD provision was nearly 75% (data not shown). However, there appeared to be almost no additional

Table 4. Change in percentage of correct/favourable responses to knowledge statements and positive responses to attitude statements by intervention arm, including illustrative examples

	Detailing study arm		Control study arm	
	Providers (n=72 base; 67 f/u)	CBD agents (n=248 base; 212 f/u)	Providers (n=59 base; 53 f/u)	CBD agents (n=230 base; 190 f/u)
All knowledge statements^a				
Baseline	67.7	61.5	67.0	62.7
Follow-up	76.5	70.6	66.7	66.4
Change	+8.8	+9.1	-0.3	+3.4
<i>'The IUD is more effective at preventing pregnancy than oral contraceptives'</i>				
Baseline	81.9	73.6	81.4	78.6
Follow-up	89.6	90.0	75.5	90.0
Change	+7.7	+16.4	-5.9	+11.4
<i>'An IUD is a good contraceptive method for a woman who is HIV positive'</i>				
Baseline	67.7	47.8	67.9	45.3
Follow-up	83.1	51.4	76.0	43.9
Change	+15.4	+3.6	+8.1	-1.4
All attitude statements^b				
Baseline	61.8	63.9	64.9	63.8
Follow-up	65.7	68.7	63.6	65.3
Change	+3.9	+4.8	-1.3	+1.5
<i>'The IUD is a good contraceptive method for women who are not married'</i>				
Baseline	52.1	54.3	47.5	44.1
Follow-up	58.5	63.5	54.9	47.1
Change	+6.4	+9.2	+7.4	+3.0
<i>'The IUD is an appropriate contraceptive method for women who do not have children'</i>				
Baseline	25.7	22.0	28.8	23.7
Follow-up	28.8	28.1	26.9	29.3
Change	+3.1	+6.1	-1.9	+5.6
<i>'There are many days when I am too busy to insert IUDs'</i>				
Baseline	61.1	na	72.4	na
Follow-up	44.8	na	54.7	na
Change	-16.3		-17.7	

^aAverage of eleven statements for providers and eight statements for CBD agents.

^bAverage of ten statements for providers and eleven statements for CBD agents.

na: not applicable; f/u: follow-up.

increase in self-efficacy among those providers who received the detailing intervention as compared with those providers who did not. At follow-up, nearly half of providers in both study arms continued to say that they were often too busy to insert IUDs, although perceptions of their available time did grow more positive in both arms (Table 4).

Cost-effectiveness

Not all of the 34 study sites receiving the detailing intervention received detailing in both target groups, therefore a per-facility cost was calculated for implementing detailing in both target groups following the two-visit model utilized in the study. This cost was US\$623.00. Intervention costs include a 5-day workshop for five detailers, utilizing the curriculum written for the study, IEC materials and the detailers' transportation costs.

In order to determine the cost-effectiveness of the detailing intervention relative to DMPA provision, first a numeric indicator of the effect of the intervention was identified. The observed effect of the detailing intervention targeting both providers and CBD agents was an increase of 6.5 IUDs per facility per quarter. If it is assumed that the two-visit model of detailing is effective over a six-month period, a total of 13.0 additional IUDs (6.5 IUDs \times 2 quarters) would be expected to be inserted per facility for a cost of US\$623, or an intervention cost per IUD of US\$47.92.

The detailing intervention costs plus the commodity costs of the IUD were then compared with the commodity cost of providing DMPA. Commodity costs reported for the US Agency for International Development (USAID) were used (USAID, 2004). For the IUD, a commodity cost of US\$1.65 per IUD was used, and an average continuation rate of 3.5 years. Adding \$1.65 to the \$47.92 per IUD cost of the intervention produced a cost of \$49.57 for each 3.5 years of contraceptive protection following a detailing intervention. In comparison, DMPA has a per-unit commodity cost of \$1.09. Since clients using DMPA must return to the clinic every 3 months for a new injection, the total cost of providing DMPA for 3.5 years is US\$15.26 (fourteen injections \times \$1.09 each). For the detailing intervention to equal the cost of DMPA provision, it would have to result in 23 additional IUDs inserted per quarter (23 IUDs \times 2 quarters, programme cost of \$623; per IUD cost of \$13.54 + commodity cost of \$1.65 = \$15.19) as compared with the 6.5 IUDs per quarter observed in this study.

Discussion

Intra-uterine device provision was low in the participating facilities at baseline and remained low 6 months after the detailing intervention. Clients using the IUD made up an average of less than 1% of all FP clients at follow-up in all facilities. The intervention had a statistically significant effect in increasing IUD provision only among facilities that received detailing for both providers and CBD agents, but the effect was still very small and did not meet the study's definition of programmatically significant (5% increase).

In facilities where only one target group received the detailing intervention, no increase in IUD provision was observed. This leads to the study's first conclusion that in order to increase uptake of the IUD, efforts must be made on both the supply side (e.g. providers) and the demand side (e.g. clients). The inclusion of CBD agents as one of the target groups was intended to serve the purpose of increasing client demand and appears to be important to achieving the goals of IUD promotion. Without a community-oriented demand creation element, clients may arrive at the clinic with their minds already made up to request the 'typical' contraceptive which providers

will then feel obliged to supply, regardless of its appropriateness to the woman's reproductive needs.

An immediate drop-off of IUD provision was seen after the detailing intervention ceased, indicating that two detailing visits is probably not sufficient to sustain increases. The intervention was specifically designed to have only two visits so that it might be realistically replicable for the MOH. A more intensive intervention might produce stronger results, but at the expense of any likelihood that the intervention would be scaled up after the research was completed.

Why wasn't the intervention more successful in significantly increasing IUD provision in any meaningful way? Several factors were examined, and it was found that facility type, access to essential supplies and district were not significant determinants of success. The sensitivity analysis suggests that the contamination among study arms did not significantly change the results. It is worth noting that implants were out of stock for much of the study period. They were back on the shelves of clinics in September 2004 and implant provision increased at the same time that IUD provision was decreasing following the post-intervention bump. The re-stocking of implants cannot be directly linked to the lack of success of the detailing intervention, but implants appear to be popular with both providers and clients.

It was hoped that by improving knowledge and attitudes about the IUD among providers and CBD agents, more clients would receive positive information about the method and its use would increase. The intervention appears to have been successful in increasing knowledge and improving attitudes overall, but on some key issues such as nulliparity respondents' negative attitudes remained unchanged. The detailing training focused considerable attention on finding messages to convince providers that increasing IUD uptake would decrease their workload in the long run. However, post-intervention half the respondents, whether they were subject to the intervention or not, still agreed that they are often too busy to insert IUDs. This indicates that providers were not convinced by the intervention's messages and are still not enthusiastic about offering this service to clients.

It was also noted that the promotional detailing visits did little to improve self-efficacy among providers. Although providers at both baseline and follow-up reported relatively high levels of self-efficacy about inserting and removing IUDs, key informants in a data interpretation workshop confirmed the researchers' impressions that technical proficiency is still a major obstacle to IUD provision.

Among the strengths of this study is its experimental design including a control group and random assignment to intervention study arms. On the other hand, there was a large amount of intervention contamination. The contamination points to the difficulties inherent in conducting research in a real-life field setting. Only half of clinic providers in sites assigned to receive the detailing intervention reported that they actually heard the detailer's presentation. This may be due to staff transfers between job duties or facilities, or due to providers simply not having been available on the day the detailer came. The CBD agents assigned to the intervention were more likely to report receiving it than the clinic providers, which makes sense given that they are more stable members of the community than clinic providers.

In addition, many providers and CBD agents who were *not* assigned to receive the intervention reported having heard the detailing presentation. This may have taken

place since some providers not assigned to receive the detailing intervention may also have been CBD supervisors, and may have been present during a detailing session with CBD agents. Furthermore, since the detailers are district supervisors they may have given messages about the IUD to non-intervention groups, despite requests that they refrain from doing so until the study was over. Or, the respondents may simply have been mistaken about whether the source of IUD information was the detailer since several other IUD initiatives were happening in Kenya at the same time.

The cost-effectiveness of the detailing intervention was examined to determine if it could spur enough IUD use to save the family planning programme money in commodity costs and contribute to its overall sustainability. It was found that if replicated exactly as done during the study, detailing is not cost-effective. To make the detailing intervention comparable to DMPA provision, it would have to improve its effectiveness three-fold. Thus it is concluded that although the effectiveness of provider-based activities was somewhat amplified when concurrent demand creation activities were carried out, the expansion of the detailing intervention cannot be recommended due to its high cost and modest outcome.

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