# Qualitative study of reasons for discontinuation of injectable contraceptives among users and salient reference groups in Kenya

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#### Abstract

Discontinuation of contraception is a major problem in Kenya. Even though they want to space or limit their births, over a quarter of contraceptive injectable users discontinue use of the method within 12 months of beginning use. Fourteen focus group discussions were conducted in Nyando District, Kenya among current contraceptive injectable users and their salient reference groups (e.g. husbands, mothers-in-law, community leaders, service providers) to understand why women discontinue using contraceptives (with a focus on injectables). Thematic analysis was performed using NVivo 8 software. Discontinuation of contraceptives in Nyando District occurs for logistical, social and medical reasons. Common reasons for discontinuation include side effects, husbands' opposition, provider and/or clinic restrictions, misconceptions about injectables, stock outs, and lack of cash to pay for family planning services. This research expands the literature by examining social influences on discontinuation in this community and similar resource-poor settings.

#### Résumé

L'abandon de la contraception est un problème majeur au Kenya. Plus d'un quart des usagers d'injectables contraceptifs abandonnent l'emploi de la méthode moins de 12 mois après l'initiation. Nous avons mené quatorze discussions à groupe cible dans les districts de Nyando au Kenya, auprès des usagers courants d'injectables contraceptifs et leur groupes de référence saillants (par exemple les maris, les belles-mères, les leaders de la communauté, les dispensateurs de services) pour comprendre pourquoi les femmes abandonnent l'emploi de contraceptifs(en mettant l'accent sur les injectables). Nous avons fait une analyse thématique à l'aide de NVivo 8. L'abandon des contraceptifs dans le district de Nyando a lieu pour des raisons logistiques, sociales et sanitaire. Les raisons communes pour l'abandon comprennent les effets secondaires, l'opposition par les maris, les restrictions imposées par les dispensateurs et / ou les cliniques, les idées fausses, les stocks épuisés et le manque d'argent pour payer les services de la planification familiale. Cette recherche élargit la littérature en étudiant les influences sociales sur l'abandon en incorporant les perspectives des groupes de référence saillants. Les résultats suggèrent des points d'intervention pour la continuation dans cette communauté ainsi que dans des cadres pareils qui manquent de ressources.

Key words: Kenya; family planning; discontinuation; contraceptive injectables; focus group discussions

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#### **INTRODUCTION**

In the late 1970s, Kenya had the highest fertility rate in the world<sup>1</sup>. Through public health efforts, the country has since experienced one of the most dramatic fertility declines. This decrease has been attributed to the increase in contraceptive prevalence<sup>1</sup>. According to the 2008-09 Kenya Demographic and Health Survey (DHS), 39% of married women were using a modern method, but 36% of all contraception users discontinued within 12 months of beginning use<sup>2</sup>. Among married women, the predominant method used in 2008-09 was injectables (22% of currently married women), followed by the pill (7%). Despite the popularity of injectables, 29% of injectable users discontinue use of the method for any reason within 12 months of starting.<sup>2</sup>

Family planning (FP) service-related factors, including quality of care, have been thought to be associated with contraceptive discontinuation.<sup>3</sup> However, studies of quality of care have not been able to show large effects on discontinuation rates<sup>4</sup>. Consistent determinants of discontinuation include: type of method used, side effects, age (younger women are more likely to discontinue than older women), number of living children, fertility intentions (women wanting to space their children are more likely to discontinue compared with women who have completed childbearing), and a change in marital status<sup>5</sup>. Discontinuation appears to be less consistently associated with the number of methods available<sup>4</sup>, socio-economic factors including education<sup>5-7</sup>, urban-rural residence<sup>6</sup>, husband's disapproval<sup>8</sup>, and cost or lack of access to the method<sup>4-</sup> Service providers may also contribute to discontinuation. Recent research in the Eastern Cape of South Africa demonstrated that more than a third of contraceptive injectable clients arriving late at clinics for re-injection, but within the grace period, were denied re-injection by providers.<sup>9</sup>

In Kenya, side effects are the most common reason for discontinuation, predominantly side effects associated with pills and injectables.<sup>10</sup> Among discontinuations reported in the five years before the DHS, the percentage attributed to side effects increased from 20% in 1998 to 25% in 2003. In 2003, 13% of currently married women not currently using a method reported that they did not intend to use a

method in the future because of fear of side effects. The proportion increased to 20% for women under 30 years of age.

The term "side effects" encompasses the following two categories: clinical side effects/ health concerns and health-related fears. Clinical side effects and health concerns are defined here as those which have been evaluated through research studies and are found in published medical literature. The most common reason for discontinuation of hormonal methods is disruption of the menstrual cycle.<sup>11</sup> Menstrual irregularity (increased number of days of light bleeding or amenorrhea) is very common among injectable users.<sup>12</sup> Other clinical side effects and health concerns associated with injectable use include: weight gain, mood changes, reduced libido, headaches, dizziness, abdominal bloating/discomfort, nausea and reduced bone density.<sup>13-18</sup>

The second category include health-related fears not documented in the medical literature. Some call these fears myths; however, as a cause of discontinuation, these fears are as important as the clinical side effects listed above. Women may stop using injectables if they believe continued use of the method will lead to health problems. Some reported fears about injectables, many of which stem from menstrual changes associated with hormonal methods, include the fear of infertility, an accumulation of blood in the body, loss of balance, and fear of delivering a deformed child.<sup>12 14</sup>

While previous research has primarily focused on user and method-related characteristics associated with discontinuation, little attention has been paid to the influence of other people on discontinuation. This is a significant omission because women do not make family planning decisions in isolation. Rather, their contraceptive behavior is influenced by their social enviroment, including cultural norms. In an effort to identify target groups and appropriate messages for a communication campaign to increase contraceptive continuation among contraceptive injectable users, focus group discussions (FGDs) were conducted in Nyando District, Kenya in 2007. This research expands our understanding of discontinuation by examining social influences on discontinuation by incorporating the perspectives of salient reference

groups. The results of this analysis suggest points of intervention for increasing continuation of FP in this community and similar resource-poor settings.

## **METHODS**

Fourteen FGDs were conducted among current contraceptive injectable users and their salient reference groups, those people who influence women's use and discontinuation of contraception. First, four FGDs were conducted with current contraceptive injectable (depot medroxyprogesterone acetate or DMPA) users recruited from Ministry of Health Family Planning clinics in Nyando District, Kenya to determine why women discontinue using contraceptives (with a focus on injectables) and identify their salient references. FGD data from current users were analyzed and five salient reference groups identified for a second round of FGDs. Then two FGDs were conducted with each of the groups: husbands, mothers-in-law, community leaders, service providers and long-term contraceptive injectable users. Table 1 shows the number of participants in each FGD.

A local research company experienced in conducting social science research in the study area recruited participants and conducted the FGDs. The FGDs were led by experienced, trained moderators, fluent in the local language, Dholuo. Due to the sensitivity of the study topic, moderators were the same gender and roughly the same age as focus group participants. We used a semi-structured open-ended FGD guide. The same questions were asked in the same order of all participants and responses were inductively probed. Discussions were tape recorded and transcribed verbatim and then translated to English. **FGDs** consisted of 8-12 participants. Purposive sampling was used to ensure participants were homogenous with respect to gender and respondent type (i.e., current user, service provider, community leader). The discussions averaged 1.5 hours. This research was reviewed and approved by FHI's Protection of Human Subjects Committee and the Kenvatta National Hospital Ethical Review Committee. All participants provided written consent prior to participation.

A detailed codebook was developed by both authors where themes (reasons for discontinuation) were

identified and defined. Several codes were predetermined based on the FP literature, but most codes were created inductively, and therefore, generated from reading the transcripts.<sup>21 22</sup> This inductive thematic approach allowed themes to emerge from the data.<sup>23</sup>

Transcripts were coded by the first author using QSR's NVivo 8 software.<sup>24</sup> The cross tabulation reporting function ("matrix coding") was used to identify patterns in themes by respondent type. Based on these reports, both authors examined the evidence that supported each theme quantitatively (i.e., code application frequencies by type of participant generating the data) and qualitatively (i.e., context of code). To capitalize on the FGD enviroment, we looked for participant interactions (i.e., encouragement, disagreement) within groups.<sup>25</sup> The results section features quotations from FGD participants.

#### RESULTS

Sixty five themes were identified, of which 21 were predetermined based on the FP literature. We placed these themes into three higher-level conceptual constructs with regard to why women discontinue contraceptive injectables in Nyando District: logistical, social, and medical reasons. Logistical reasons include clinic restrictions and service providers' lack of knowledge about injectables which lead to premature discontinuation, difficulties getting to the clinic for injections, stock outs, and lack of cash to pay for clinic visit and/or injectables. Social reasons include salient reference group (i.e., husbands, mother-in-laws) opposition to contraceptive use, and religious and cultural beliefs that prohibit or thwart contraceptive use. Medical reasons encompassed clinical side effects and health concerns, and health-related fears about injectables. Participants used various names to describe contraceptive injectables including: the jab, injectables, Depo, and Depo Provera. Some just referred to the method as family planning. Table 2 provides a summary of the 56 codes which were expressed in at least two FGDs.

#### Logistical reasons

Logistical reasons were mostly given by service providers, and current and long-term

contraceptive injectable users. Clinic restrictions, lack of knowledge about injectables, stock outs, and lack of cash were the most common themes. Participants in both FGDs with husbands mentioned lack of cash and stock outs as a reasons for discontinuation. Common clinic restrictions include service providers only allowing women who already had multiple children to receive injections and requiring husbands' permission to receive an injection. One current injectable user explains who can use injectables in her community,

It depends on the number of children that you have. Maybe you sat down with your husband and you have agreed that you want to plan your family, so you can agree and go to the doctor. Doctors sometimes don't agree. Maybe if you have one child and you want to stop giving birth, he [the doctor] can't allow you because he knows that you will need another child. So in a house you can have three children. This one he [the doctor] can allow you to use injectable, especially if you have discussed with your husband because he will first ask you if you have discussed the issue with your husband. [CIU, FGD 1]

Some of the service providers agreed with a parity restriction, while others did not. When asked what types of women can receive FP injections in the clinics, three service providers [FGD 1] responded:

- R2: All women of child bearing age but there seems to be contraindication for women who have not given birth because if you open the [injectables] pack, it says that it should be used with women who have at least one child because it delays fertility. So they have written it clearly.
- R6: I would say the method would depend on the person who is to use it. Also, as my colleagues have said, about the age and the parity of the user.
- R4: I want to react to what [R2] said. To me it would appear misleading if we say women who have not given birth are contraindicated to injectables. What I say is that we give them information. They are the decision makers. Having let them know that it will delay the ovulation and they still want to use the method, you should just allow them to use.

A similar discussion emerged in the second FGD with service providers. When asked the same question about who receives injectables, a service provider responded, "Any mother who has started seeing her menses." Indeed, "mothers" was the most common answer in all FGDs to the question about who uses contraceptive injectables in this community, indicating that this method is primarily used by women who already have children.

As aluded to in the above quotation, another common clinic restriction is that women have to be menstruating to receive the initial injection. Often, if women are not menstruating on the day they visit the clinic, they are sent home and asked to come back when they are mentruating. In some clinics, women are also required to present their FP card to receive their next injection. A current injectable user [FGD 3] explains how this restriction can prevent contraceptive continuation in her community, "Sometimes if the man [husband] sees that the child has grown and the neighbor has a baby, he can even take your [family planning] card and hide it and that's your end with family planning."

Service providers identified several side effects of injectables which cause them to not re-inject clients. Many of these side effects are not supported by medical research, including hypertension, low body weight, and short menstrual cycles. When asked why women stop using injectables, a service provider [FGD 1] responded:

Due to side effects like hypertension, they come to the facility and after sometime, the [blood] pressure increases. Maybe she didn't have [high] blood pressure but after using it [injectables], she develops [it]. So you can advise her to stop.

Stock outs of injectables was a problem mentioned in over half of the FGDs. When a clinic runs out of injectables, they ask clients to buy the injectables at a pharamacy and return to the clinic for injection. In addition to the extra financial and time costs associated with traveling to the pharmacy, this solution poses an insurmountable financial constraint to many clients since the pharamacies charge a much higher price than FP clinics which often provide methods free or at a nominal charge. According to the service providers in the FGDs, many clients who leave the clinic without receiving their injection do not return. One long-term user [FGD 2] describes how injectable users can become discouraged when the method is out of stock at the clinics and not affordable at pharmacies and private hospitals:

It can reach a time when the injectables are not there [in the family planning clinics]. Even if we go to the places where we get them from, you can be discouraged until you stop because you go and you find that they are not there. There are some people who offer the same service but their price is high and sometimes you don't have the money.

Another long-term user [FGD 1] describes community health workers (CHWs) as a convenient source of injectables in her community when the clinic runs out of stock:

The hospital these days has no injectables for family planning, so you are sent to the clinic. Then you buy the drug. Then you can be injected because even if you go to the sub district or health centre, it's expensive. But the CHW will only charge you ten shillings [approximately 0.12 USD]. And even the distance to Pap Onditi [clinic] is too much and when you reach, there you find a very long line. But the CHWs are just around so you can go back and perform your duties.

Some of the service providers [FGD 1] suggest that the change in focus from FP to HIV/AIDS may be to blame for the stock outs as explained below.

... instead of concentrating on sustainability of supply of the same contraceptives, the idea [focus] is now based on HIV control and management. That now leads to the shortage of contraceptives and mothers stop using them because it is very expensive. Depo-Provera is about 80-90 shillings [approximately 1 USD] in some of the chemists which is of course if somebody is not having the money cannot purchase and in the end conceives.

#### Social reasons

Social reasons were mostly given by community leaders, husbands and current and long-term contraceptive injectable users. Husbands' opposition to contraceptive use was mentioned in all 14 FGDs. Specific reasons for husbands' opposition included (in decreasing frequency): concerns about decreased libido on the part of women (mentioned in all 14 FGDs), wants more children, preference for male children, changes in bleeding, and discovery of covert use. Participants explained that decreased libido may result in two situations. First, women are suspected of taking on a a new sexual partner, or second, husbands may take a new sexual partner or second wife. One husband [FGD 1] illustrates:

With me, the weakness that I see [in injectables] is that one for the bedroom. It removes appetite [libido] from women. They are not in the mood for sex. They are always tired. I also see that it can destroy one's marriage because if men are [sexually] active, men say that there is weakness for the garden and that one for bed. If the man is [sexually] active and the woman is not, it can lead the man to extramarital affairs. It can also make a man to marry another wife.

Covert use (women using contraception without their husband's knowledge) was described in all FGDs. However, in 11 FGDs participants also talked about both partners making contraceptive decisions together. Mother-in-law opposition was mentioned in five FGDs.

Religious opposition was mentioned in roughly half of the FGDs. Participants specifically cite the Catholic church as being opposed to contraceptive use. Participants in both FGDs with husbands and one with long-term users stated concern about FP reducing the population of the community. A long-term injectable user [FGD 1] explains,

There was a member of parliament who was complaining that Luos [the name of the predominate tribe residing in Nyando District] are practicing family planning and that is why the population of Luos has gone down while the Kalenjins [another tribe] are giving birth and don't even want to hear about family planning. So we should reflect back and go to our tradition. Before it us who were many and now we are few. So we should stop family planning and conceive and raise our population.

A belief that emerged in half of the FGDs and was distributed across all respondent types except mothers-in-lawwas that contraceptive injectable use is associated with prositution. When asked what category or type of women use injectables, community leaders [FGD 1] responded:

R5: Most of them that we see, you find that they are

women who had separated from their partners. Maybe she stays in Ahero [a nearby town] doing a business [prostitution]. She left her house. Most of those women use injectables. Young women who are widows at an early age also tend to use injectables.

- R1: Back when the idea of family planning came, we were being taught that if you are below thirty years, you can't be injected with injectable. But nowadays even school- going children from 18 years, 20 years and so on use injectable. That's why you hear people say that young girls use injectables. Even those who have not known whether they will one day become pregnant use injectable. And also that has made prostitution increase.
- R6: According to what as earlier said, I just want to say that they are business ladies [prostitutes].

R8: You see family planning started early, nowadays even children of 18 years or 16 years do it. But it's not good. So it's mostly from 18 to 45 [years]. Most of them are business ladies [prostitutes].

R2: ... another thing may be one was selling her 'tomatoes' [meaning selling her body or engaging in prostitution] and now she has got someone who has married her. She can decide to stop using injectables so that she can conceive because she has a husband.

# **Medical reasons**

Medical reasons for discontinuing injectables—both clinical side effects and health-related fears of injectables—were common across all groups. Beginning with clinical side effects, increased weight was mentioned in almost all of the FGDs. This side effect was primarlily viewed negatively although participants in five FGDs expressed favorable opinions about increased weight. Decreased bleeding or amennorhea was also mentioned in almost all of the FGDs, although similar to increased weight, a few injectable users in four different FGDs expressed happiness with this side effect. Below are perspectives from three current users:

There is something that I have observed about injection, I don't know if it is me alone? [Asking question of the group] Sometimes I take long before I attend [menstruate], until I worry that I am pregnant. I don't see any sign showing that I am pregnant. Do you know that has made me to worry so much! Because me "I am just seated that I am seated" [meaning that I am just there helpless], I do not see, sometimes it [period] comes a little and then disappears again. [Current user, FGD 2]

You know that when you are seeing blood then sex is back, or how is it? [seeks opinion of other participants] Secondly, if you are seeing blood then you still feel that you are in the league of younger women because those who don't have menses we call them 'bim' [translates to 'Chimpanzee'] in 'Dholuo', So if you are still seeing your menses, then that means that you are still young. [Long-term user, FGD 1]

I like it [amenorrhea] because the war with my husband during my periods is no more. [Current user, FGD 1]

Injectable users also talk about waiting for their menses to return before getting their next injection even if their current injection expires. A long-term user [FGD 2] describes her re-injection patterns to the moderator:

- M: You were supposed to go back on 7th. Why didn't you go back?
- R4: I wanted to see my periods because since I started using [injectables], I have not received them.
- M: You're waiting for periods?

R4: Yes

Another long-term user [FGD 2] describes how her concerns about amenorrhea lead her to discontinue using injectables while she waited for her period to return:

- R7: I had a break for one whole year without using it.
- M: Without using any [contraceptive method] and you did not conceive as well?
- R7: I did not use anything and after that whole year, I started using it again
- M: Why did you take a break?
- R7: I thought that since I was not seeing blood maybe they were getting collected somewhere in my body because since I began using the injectables, I had never seen blood.
- M: You thought the blood was being collected

somewhere?

- R7: I thought they were being collected somewhere and when I asked the sister [nurse], she told me that there is nothing like that. But according to me, they were somewhere.
- M: Mmm.
- R7: Mmm. So I said that I want to have a break and see if the blood will come out after some time without the use of the injectables. Then use it again.

Increased bleeding or spotting was mentioned in almost all the FGDs. Husbands did not comment on bleeding increases or spotting; however, in both FGDs with husbands some participants expressed dislike of amenorrhea. One husband [FGD 1] recounts:

> Injectables are good but it's also not very good. For example a woman always goes for her periods monthly. When she is using injectables, then they can inject her for one that lasts for three months. I can't talk about someone's wife. For those three months, a woman can miss her periods, after that she menstruates naturally... That makes them lack good health, even if she becomes fat, she is not very strong. Injectables make women unable to do other chores like going to the garden because they have no energy. They can only do office jobs. [Laughter] So you find that the woman cannot go to the garden. You know us --we go to the garden. You know the woman misses her periods but God put it that they should menstruate monthly. So that is where we don't understand. It [injectables] makes them tired; it doesn't want one to do heavy chores like going to the garden.

As indicated above, amenorrhea was associated with weakness and fatigue by some participants. Some associated amenorrhea with reduced libido. Backache was another common complaint. Backaches were mentioned in 10 out the 14 FGDs. In three FGDs, participants speculated that bleeding changes due to injectable use caused backaches among users. One husband [FGD 2] commented:

They [injectable users] mostly complain about backache, which is as a result of lack of

periods. Somebody stays [without periods] for quite a long time, even for three years consecutively without periods. This causes the back pain.

As mentioned under the social reasons for discontinuation, lower libido was a common theme in all FGDs. One mother-in-law [FGD 2] explained:

It [injectables] can sometimes bring problems in the house when it reduces your sexual libido, then when the husbands want their conjugal rights and you are not in a mood to respond. Now at that time, you know it is war. He will say that you have some people outside where you satisfy your sexual desires such that when he proposes to you, you do not accept him.

Interestingly, in two FGDs participants mentioned that reduced libidbo was a desirable side effect. Two service providers [FGD 1] recount:

- R2: Ok, I wouldn't said it's for the majority. But ... for almost half of the women who use it, the libido is reduced. I can also say that there are women who come specifically for the injectables (e.g. the widows). ... they don't want to conceive and also they don't want to get involved with other people, so if they use it their libido will be reduced.
- R7: I agree with her, some women say that if they are using the injectables, their libido is reduced, especially widows. They liked Depo.

Other common clinical side effects mentioned during the FGDs included: abdominal discomfort, headaches, and delayed return to fertility. Mood changes and nausea were mentioned in three FGDs. Changes in vaginal lubrication were mentioned in only two FGDs and was not a major theme. Injection site pain was mentioned by only one participant and concern about loss of bone density was not mentioned at all.

Health-related fears of contraceptive injectables were common in all FGDs. The most common fears were infertility, delivering a deformed baby, and high blood pressure. Infertility was mentioned in 13 of the 14 FGDs. Many of the participants recounted stories of people in their community who had used injectables in the past and as a result of this use, could no longer conceive. One community leader [FGD 2] declares, "Another major problem is that the use of injectables can cause permanent sterility." A belief in this community is if a person uses injectables for five or more years, they will become infertile and this belief leads to discontinuation as one current user [FGD 1] describes, "Me, I discontinued using injectables because I could hear people say that if you use injectable for five years, you wouldn't be able to give birth. Then I decided to discontinue and it is during that time that I conceived again." A mother-in-law [FGD 1] recounts:

R2: Some people stop using injectables depending with how she has used it so that she can get another baby. She may wait hoping to get another baby but she fails to conceive. This sometimes happen to people.

M: That means that she stops [giving birth] permanently?

R2: Yes

A mother-in-law in another FGD echos this belief, "On the use of injectable, they [current users] think that if they use injectables, then they won't give birth again in their lives, so they develop some fear." Service providers [FGD 1] provide further explanation of this belief:

- R3: They [family planning clients] have a belief that if you use Depo, you become infertile. So they fear using it.
- M: Is it a belief or is it the truth? In chorus: It's a belief.
- R2: It can delay fertility but it cannot make you infertile.
- R1: You know what they always expect that if they stop using Depo, then they want to see their menses immediately. So if they fail to see their menses, they relate it to infertility.

In the second FGD with service providers, infertility was mentioned only once by one provider who stated that a side effect of injectables was "secondary infertility." This same provider also said that injectables can lead to hypertension and varicose veins. None of the other service providers in that FGD spoke up to refute these claims. High blood pressure was considered a side effect of injectables by service providers in both FGDs.

Discussion about the fear of delivering a deformed baby as a result of using contraceptive injectables was common. However, the types of deformities mentioned varied and included: deformed, blind, one or no eyes; unproportionality, many or no legs; short or no limbs; small, big, malformed, multiple or no head; combined organs; facial deformity; paralysis; missing fingers; mark on skin; two babies joined together; weakness; and delivering an animal (mongoose, cow, chimpanzee, monkey). Some participants refuted these claims explaining that deformities existed before injectables were invented and people are now just blaming deformities on injectables.

Other participants believe that harm to the baby only results if the woman uses contraceptive injectables when she conceives. A community leader [FGD 2] explains:

It is at times true that injectables can cause deformation, but only if the mother started using this method after she conceived and she did not inform the health provider about this. ... for us to know that one has conceived, it is only if she attends... or if a pregnancy test is done on her ... otherwise contraceptives with hormones can cause someone to give birth to a child with deformity such as one with a finger missing, one eye, [and] combined vital organs.

Other fears related to the user herself were expressed in a little less half of the FGDs: death, decreased weight, and drowsiness or laziness. Drowsiness or laziness which results in trouble performing physical work was a major complaint of husbands in both FGDs and some current users, long-term users and mothers-in-laws. One husband laments, "What I dislike about it [injectables] is that it makes women lazy. Because they take something that does not suit their bodies from Depo-Provera injection. This is what it brings, and again she cannot do any difficult work." Another husband in that same FGD explains his view on the situation:

It looks like this people [who use injectables] sleep a lot because of their weight [gained by using injectables]. If there could be any way through which this weight could be reduced, then I think it would really help them [injectable users] because for sure those who use Depo tend to add weight extremely making them very lazy. She cannot do anything, she can only sit and watch. So it's you the husband who will be working for her. And this is the reason they [injectable users] become weak.

## Suggestions for improving continuation

Participants in all FGDs were asked for their advice to improve contraceptive continuation in their community. The groups containing male participants (husbands and community leaders) had many more suggestions than the groups containing female participants. Service providers had very few suggestions other than the provision of a constant supply of injectables to the clinics and a reduction in the cost of injectables. Providers may be unaware of the low level of knowledge about injectables in their communities and their potential contribution to increased knowledge.

The most common suggestion across all groups (13 out of the 14 FGDs) was to disseminate correct information about injectables or family planning in general to the community. Six groups specifically suggested that efforts focus on disseminating information about the advantages and disadvantages of injectables. Three groups suggested that only the advantages of injectables be discussed. And two groups suggested that efforts focus on dispeling myths about injectables. The following people or places were mentioned as ideal sources to disseminate this information: chief barazas (community-wide meetings), health providers and facilities, mass media channels (especially radio), community health workers, and other community gathering places (church, funerals). Participants from seven FGDs suggested that current injectable users could serve as role models to foster continuation in their community.

Male involvement was suggested to improve contraceptive continuation in five FGDs. Participants recommended that men be involved during the decision making process of starting FP and selecting a method so that they would know about the advantages and potential side effects of injectables. A husband describes how men in this community sometimes prevent women from continuing contraception:

...even if you stop or even if they are still using [injectables], it's the men who stop them [women] from using and also stopping them from going to the family planning. So expect that women have not refused to use family planning, they really want it. But it's their husbands that make them not to go for it. Husbands should be taught more than what should be taught to the women about family planning methods.

#### One community leader [FGD 2] advises:

Men also should be invited so that they are taught about the advantages of the injectables or family planning in general because in most cases women are taught about these things as men are left behind. This is also a problem. So those who have the ability to organize trainings should also invite men so that they also get the information required. Especially on the advantages of family planning or using the injectable, so that these men, who say there is a problem they can come and get to know the real advantages and disadvantages.

Governmental involvement in terms of disseminating family planning information, training providers, and maintaining a constant supply of injectables was suggested in four FGDs. Participants in four FGDs suggested that encouragement be provided to current users to help them continue using injectables. Some of the participants in the FGDs with husbands and mothers-in-laws recognized their influential role in contraceptive continuation. One mother-in-law [FGD 1] noted, "Yes, we can educate them, we as parents who have given birth and we have experienced dificulties in this world we can encourage them to use injectables because of high economic standards which have increased rapidly."

# DISCUSSION

Numerous reasons influence whether women who want to space or limit births discontinue using injectables in Nyando District. They can be described as logistical, social, medical or a combination of all three. A salient logistical reason uncovered in these data was the pervasive problem of commodity stock outs. If injectables are not available at the FP clinics,

women in this community discontinue because they can not afford to purchase the product elsewhere. Other major logistical barriers lie within the clinics themselves. Unnecessary and sometimes incorrect provider and/or clinic restrictions inhibit women from receiving injections. Three clinic restrictions for injection and re-injection found in these FGD data are particularly worrisome and include parity, hypertension and menstruation requirements. The World Health Organization (WHO)'s medical eligibility criteria for contraceptive use do not restrict contraceptive injectables for nulliparious women, adolescents or those with hypertension.<sup>26</sup> Progestinonly injectables, which are the predominant injectables used in Kenya, do not contain estrogen and therefore do not cause any of the cardiovascular complications associated with pill use. Women with adequately controlled hypertension or mild to moderately elevated blood pressure can continue using progestin-only injectables.<sup>27</sup> Finally, a simple checklist has been found to be effective at ruling out pregnancy and would allow non-menstruating women immediate access to contraception.<sup>28</sup> This checklist has been endorsed by both the WHO and the Kenyan Ministry of Health Division of Reproductive Health.<sup>29</sup>

Social reasons also lead to premature discontinuation of injectables. Women in Nyando District do not always have control over the starte and continued used of contraception because such decisions are often made by their husbands or other influential people in their community and household. Much of the opposition husbands hold towards the use of injectables or other methods appears to stem from a low level of knowledge regarding side effects. Cultural beliefs about gender, sex and fertility also have an important role in discontinuation behavior. In this patriarchical society, polygamy and ritual sex surrounding social and agricultural events is practised.<sup>30 31</sup> Fulfilling "conjugal duties" and bearing multiple children are critical parts of a married woman's duty. Contraception that reduces a woman's libido and willingness to be an active sexual partner puts strain on marriages in the Luo community. Male and female FGD participants were well aware of this constraint of injectables, but offered numerous solutions to the problem, too. Participants suggest involving men in FP educational efforts might make

them understand the advantages of FP, the potential side effects of injectables, and be more understanding if their wife experiences a side effect such as lowered libido.

Not surprisingly, medical reasons for discontinuation in this study were numerous. Similar to previous research, common side effects of injectables reported included weight gain and menstural changes. What is more interesting are the common side effects and health-related fears that the participants reported that are not found in medical literature on injectables such as back aches, infertility, delivering a deformed baby, high blood pressure and drowziness. Educational and counseling efforts in this community should be tailored to address these community-specific concerns.

The findings from this study are generalizable to women who utilize services from MOH clinics, primarily serving the extremely poor of Kenya. Another limitation is that discontinuers were not included as a specific subgroup. Many of the participants in the long-term user group had discontinued using injectables in the past. However, the analysis would have been strengthened had we been able to include discontinuers as their own category.

These qualitative findings support previous research on contraceptive discontinuation, yet while previous research on this topic has primarily focused on user and method-related characteristics associated with discontinuation, few studies describe the influence of other people on discontinuation. This paper contributes to our understanding of discontinuation by examining social influences on discontinuation by incorporating the perspectives of salient reference groups, and demonstrating the influence of such groups.

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