

## ORIGINAL RESEARCH ARTICLE

# Social Networks and Decision Making for Clandestine Unsafe Abortions: Evidence from Kenya

<sup>1</sup>\*Joachim Osur, <sup>2</sup>Alloys Orago, <sup>3</sup>Isaac Mwanzo and <sup>4</sup>Elizabeth Bukusi

<sup>1</sup>Amref Health Africa Headquarters, Nairobi; <sup>2</sup>Department of Community Health, Kenyatta University <sup>3</sup>Department of Community Health, Kenyatta University; <sup>4</sup>Kenya Medical Research Institute

\*For Correspondence: E-mail: osurj@yahoo.com; Phone: +254 733 753458

### Abstract

Little is known about the role of social networks in promoting clandestine abortions. This study investigated the role social networks play in decision making for and facilitation of clandestine abortions. It was a mixed method study in which 320 women treated for complications of unsafe abortions were interviewed in a cross sectional survey to determine their consultation with social networks and how this ended up in clandestine abortions. Information obtained was supplemented with information from focus group discussions, case studies and key informant interviews. It was found that 95% of women consulted their social networks as part of decision making before aborting clandestinely and unsafely. The man responsible for pregnancy, friend of same sex and woman's mother were the most consulted at 64%, 32% and 23% respectively. 92% of advice was for the woman to abort. The man responsible for pregnancy and the woman's mother were the most influential advisors ( $p<0.05$ ). Intermediaries linked the woman to clandestine and unsafe abortion and included agents and previous clients of clandestine abortion providers and the woman's friends and relatives. Decision making and seeking for clandestine abortion were therefore found to be shared responsibilities. It is recommended that programs for reducing unsafe abortions be designed with this fact in mind. (*Afr J Reprod Health 2013 (Special Edition); 19[1]: 34-43*).

---

**Keywords:** abortion decisions, social influence, health seeking behavior

---

### Résumé

On connaît mal le rôle des réseaux sociaux dans la promotion des avortements clandestins. Cette étude a examiné les rôles que jouent les réseaux sociaux dans la prise de décision pour la facilitation et d'avortements clandestins. C'était une étude à l'aide d'une méthode mixte dans lequel 320 femmes qui ont été traitées pour des complications des avortements non médicalisés ont été interrogées dans une enquête transversale pour déterminer leur consultation avec les réseaux sociaux et comment cela s'est terminé dans les avortements clandestins. L'information obtenue a été complétée avec les informations tirées de groupes de discussion, des études de cas et des entretiens avec des informateurs clés. Il a été constaté que 95% des femmes ont consulté leurs réseaux sociaux dans le cadre de la prise de décision avant de procurer l'avortement clandestin et dans des conditions dangereuses. L'homme responsable de la grossesse, amie de même sexe et la mère de la femme ont été les plus consultés à 64%, 32% et 23% respectivement. 92% des conseils ont été pour la femme de se faire avorter. L'homme responsable de la grossesse et la mère de la femme étaient les conseillers les plus influents (de  $p<0.05$ ). Les intermédiaires ont lié la femme aux avortements clandestins et dangereux et y compris les agents et les clients précédents de prestataires des services de l'avortement clandestin ainsi que les amis de la femme et sa famille. On a donc découvert que la prise de décision et la recherche de l'avortement clandestin ont été des responsabilités partagées. Il est recommandé que les programmes de réduction des avortements non médicalisés soient conçus avec ce fait à l'esprit. (*Afr J Reprod Health 2013 (Special Edition); 19[1]: 34-43*).

---

**Mots-clés:** avortement décisions, influence sociale, comportement de recherche de santé

---

### Introduction

It is estimated that the maternal mortality ratio in Kenya is 488 per 100,000 live births<sup>1</sup>. As much as 18-35% of these deaths are attributable to unsafe abortions done clandestinely<sup>2-4</sup>.

Like in other countries with high rates of unsafe abortion, availability of safe services in

Kenya has been hampered by restrictive abortion laws and unwillingness of the health system to implement services even where legal<sup>5-8</sup>. Unsafe abortion thrives in Kenya and other countries with restrictive abortion laws as a way of bypassing legal obstacles thereby being done clandestinely. The practice poses severe health and legal risks to those involved.

Given the mortality and morbidity that results from unsafe abortion as well as the legal risks to practitioners and accomplices in clandestine abortions, it would be expected that communities would advise against it and that a woman with unwanted pregnancy would possibly be told not to do it by her social contacts should she consult them. This is especially because social networks do influence individual actions in various spheres including health seeking<sup>9</sup>. Little has however been done to determine the decision making process for unsafe abortion in Kenya and the role that social networks play. This is despite the fact that such information would greatly help in designing community programs to reduce incidences of unsafe abortions done clandestinely.

**Study Objectives**

**General Objective:**

To understand the role that social networks play in facilitating access to unsafe abortions done clandestinely at community level.

**Specific Objectives:**

1. To trace the network that a woman consults when unwanted pregnancy happens
2. To find out how the people consulted influence the final decision a woman makes on how to deal with unwanted pregnancy
3. To find out how a woman who decides to abort ends up in the hands of clandestine unsafe abortion providers

**Table 1:** Likelihood of induced/spontaneous abortion

Clinical Findings	Diagnosis	Conclusion
Temp <=37.2°C And no clinical signs of infection And no system or organ failure And no suspicious findings on evacuation	Unlikely to be induced abortion	Consider as spontaneous abortion unless the history suggests otherwise
Temp 37.3 - 37.9°C Or offensive products Or Localized peritonitis	Likely to be induced abortion	Consider as induced abortion unless history suggests otherwise
Temp >=38°C; Or organ or system failure Or generalized peritonitis Or pulse >=120 beats/min; Or shock Or foreign body or mechanical injury on evacuation	Highly likely to be induced abortion	Treat as induced abortion

**Methods**

This study was carried out in three districts of Siaya County in the southwestern part of Kenya. It was a mixed method study. The quantitative arm was a cross-sectional survey in which 320 women with complications of unsafe abortion treated in six health facilities were interviewed using structured questionnaires (See Table 1 for checklist for identifying women undergoing unsafe abortion). The women were consecutively recruited into the study as they got treated in the health facilities over a thirteen month period between June 2011 and July 2012. Three women opted out of the study for personal reasons.

Participants were interviewed only after they completed treatment for the unsafe abortion complications. Consent and confidentiality were observed. Qualitative techniques included key informant interviews with six community health workers, three pharmacy workers and two clinicians all of them staff of the six health facilities in which the study was done. Other key informants were two teachers and two women leaders who were community representatives in the governance structures of the health facilities. Important key informants were the eight unsafe abortion providers who were the most identified for having provided the service by women treated for unsafe abortion. Six out of these eight accepted

to be interviewed after being assured of their safety and confidentiality. Two focus group discussions (FGDs) were done for community health workers attached to the six health facilities, each FGD having eight participants. Finally two of the 320 women who had undergone unsafe abortion underwent case studies to trace events leading to the unsafe abortions. Interview guides with open ended questions were used for qualitative interviews as an entry to exploring the subject with participants.

## Results

### *Social Context that Makes Unsafe Abortions Thrive Clandestinely*

The school system was found to be a fertile ground for girls seeking unsafe abortions. Clandestine abortion providers acknowledged this and reported that they put systems in place for girls in need to reach them. One provider had the following to say:

*"I realized that I could help the many school girls who get unwanted pregnancies..... I have a cousin in XX secondary school. The school is close to my home and my cousin who is a student there has been instrumental in referring pregnant schoolmates to me. My neighbor also has a daughter who goes to YY, another nearby school and has been referring school girls from that school to me." Source: clandestine unsafe abortion provider.*

Teachers did not play a role in preventing clandestine abortions. Some instead ended up impregnating the girls. This was described by key informants as a perennial problem.

*"The problem of errant teachers is very common. I know two who were interdicted last year for sleeping with pupils. Many times they get transferred.....Parents tolerate errant teachers. In fact there are instances when the head teachers have reported errant teachers to Teachers Service Commission but parents of the girl come out strongly to defend the teacher and he is let scot free. Poor parents see such relationships as a source of income and encourage their daughters to get involved." Source: Teacher key informant.*

One girl who had been impregnated by a teacher and ended up with unsafe abortion had this to say:

*"Last month I missed my periods and decided to do a pregnancy test. It was positive. The first person I discussed with was the teacher. He said there was a lot at stake and advised me not to talk to anybody else about it. He also advised me not to talk to any medical people in the town as they could leak the news. I got scared and called my sister. She advised me to have abortion but I did not have money. The teacher told me not to worry..... He took me to his friend who did it." Source: secondary school student treated for unsafe abortion complications.*

Other than the school system, social relationships were important in directing women to unsafe abortion. Pregnant women consulted with their friends and those who had aborted before became the key sources of information and referral. Clandestine abortion providers indicated that their former clients were important sources of clients:

*"I get at least 3 cases per month, mostly 1 per week. They are mostly school girls. They are referred by those I have treated before....." Source: Clandestine unsafe abortion provider.*

A number of clandestine abortion providers provided other health services as well. This helped them in getting clients for abortion. The contraceptive service was especially an important link to abortion services. When a contraceptive method failed or if a woman wanted to start on a contraceptive and she realized that she was already pregnant, she requested the provider for abortion. Clandestine abortion providers knew each other. When one failed to terminate a pregnancy, they referred the woman to other providers. Community health workers (CHWs) and community based distributors of contraceptive (CBDs) clandestine providers of unsafe abortion considered themselves superior to herbalists whom they called *bush doctors*. They themselves were called *nyamrerwa*— people who have been trained by the Ministry of Health or non-governmental organizations and who provided modern health services at community level. They said the *bush*

doctors referred patients to them after failing to terminate pregnancies:

*“A number of my patients are referred by people who know me and those I have previously helped. Other patients are referred by bush doctors when they fail to terminate the pregnancies. You know their methods are crude and many times they fail.” Source: clandestine provider of abortion.*

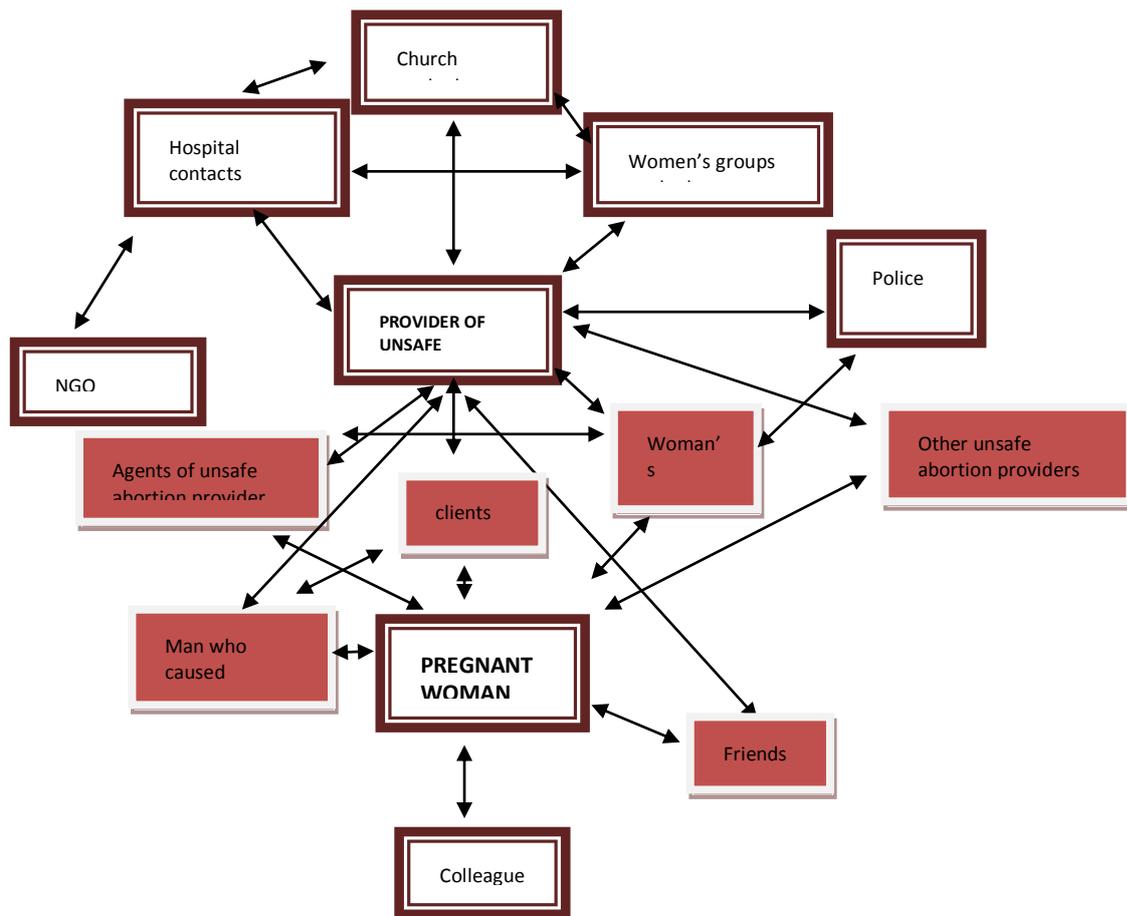
Because of their training in aspects of community healthcare, CBDs and CHWs had connections with the church, women’s groups, CBOs and NGOs. These organizations referred patients to them for healthcare but that care was not specified. As a result, patients asked for abortions as part of the care and some got it.

In a number of incidents, the man responsible for pregnancy and the mother of the girl took lead

in identifying unsafe abortion providers in addition to providing resources for the procedure.

Overall, decision making on how to handle unwanted pregnancy was a big role of social contacts with over 95% of women reporting that they consulted with their networks before making decisions. The other role was referral or linking the woman up with the clandestine provider of abortion.

A few social contacts were reported to be against abortion though. In one case, a clandestine abortion provider was taken to the police by the father of a girl she was treating. Two clandestine providers also indicated that they had been reported to the police at different times. They had however learnt to negotiate with the police and always went scot free. The provider and the police appeared to sort the cases *out of court*.



**Figure 1:** Social contacts’ reasons for advising on abortion

The kite network (Figure 1) summarizes the social interactions around clandestine abortions in the community which are often unsafe, showing the existence of an established social structure that supports the practice.

The nodes highlighted in red are key in sustaining the practice. They are the links between the pregnant woman and the clandestine provider of abortion. Without them the outreach of the provider would be highly curtailed.

### ***Individual Women's Social Interactions and Experiences With Unsafe Abortion***

#### ***Characteristics of Survivors of Unsafe Abortion***

Following are the characteristics of women who were treated for unsafe abortion:

#### ***Age of patients***

Young women were disproportionately affected by unsafe abortion. Out of the 320 patients interviewed, 110 (34.4%) were below the age of 18 years and another 133 (41.6%) between 18 and 24 years.

#### ***Previous pregnancies and live births***

The majority of patients (62.2%; N = 199) were nulliparous. As parity increased, the number of women aborting unsafely tended to reduce so that 17.2%, 8.4%, 9.2%, and 2.5% had 1, 2, 3 and 4 children respectively. Seventeen patients had had a previous miscarriage. Four others had had previous pregnancy terminations and were having repeat termination of pregnancies.

#### ***Gestation***

Over three quarters of the pregnancies being terminated (85%; N = 272) were in the first trimester.

### ***Clinical findings in women undergoing unsafe abortion at the time of admission***

The commonest type of abortion at admission was incomplete abortion (87.5%) followed by septic abortion (8.8%), complete abortion (2.2%) and missed abortion (1.6%).

#### ***Women's desire for pregnancy***

The majority of women (84.1%) did not desire the pregnancy from the start. Only 2.2% had desired the pregnancy while the rest (13.8%) were not sure. It is notable that although unsafe abortion did happen among women who did not desire to be pregnant, it occasionally occurred in those who either desired or were unsure about their desire for pregnancy.

Desire for pregnancy did not depend on the age of the woman ( $\chi^2 = 7.26$ ;  $df = 4$ ;  $p = 0.12$ ).

#### ***Consultation with the social network***

Almost all women treated for complications of unsafe abortions reported talking to one or more people either directly (88.4%) or indirectly (6.9%) about the pregnancy seeking advice.

The pregnant woman was likely to discuss the pregnancy with the man who caused it (64.1% of the time), friend of the same sex (32.8% of the time) and her mother (21.6% of the time). The variety of people consulted was higher among younger women and reduced as age increased.

The type of person consulted did not however depend on the previous deliveries that a woman had had ( $\chi^2 = 19.6$ ;  $df = 12$ ;  $p = 0.07$ ).

#### ***Influence of Social Network on Decision Making for Clandestine Unsafe Abortions***

In 92% of the time, the person consulted advised the woman to terminate the pregnancy as shown in Table 2.

**Table 2:** Summary of Advise<sup>x</sup> from People the Pregnant Women Undergoing Unsafe Abortion Talked to:

Person talked to	Advice from the person on what to do with the pregnancy				Total
	Terminate	Keep it	Decide for yourself	Other	
Man who caused pregnancy	193	5	13	1	212
Friend of the same sex	105	0	0	0	105
Sister	30	0	0	0	30
Mother	66	3	0	0	69
Health worker	30	2	10	0	42
Non health worker provider of abortion	20	0	0	0	20
Other persons	25	1	5	0	27
Total	469	11	28	1	509

X = multiple responses allowed

Women reported a number of reasons why their social contacts advised on abortion. In 45% of the cases, advisors, especially men causing the pregnancy, feared being embarrassed in the community. Another 40% feared financial responsibility while 10% were concerned of the woman's welfare if the pregnancy continued. Financial gain by those providing abortions was

noted in some providers of abortion making 3% of overall total advice.

There was a significant difference among advisors on the reasons for advising on abortion ( $\chi^2 = 96.4$ ;  $df = 20$ ,  $p < 0.05$ ). The difference arose mainly from whether the advisor had the main reason as avoiding embarrassment or whether it was fear of financial responsibility compared to other reasons as shown in [Table 3](#).

**Table 3:** Reasons why social network advised woman to abort

Person Who Influenced the Woman Most to Terminate Pregnancy	Reasons why advisor told woman to abort				Total
	Pregnancy would embarrass the advisor	Advisor feared financial responsibility	Advisor concerned about welfare of the woman	Other reasons	
Man who caused pregnancy	92	77	15	3	187
Sister	2	13	5	6	26
Father	13	10	1	0	24
Mother	6	1	1	1	9
Non-medical provider of abortion	3	2	3	0	8
Others	6	5	2	3	16
Total	123	108	28	13	270

### ***Greatest predictor for clandestine unsafe abortion***

A logistic regression analysis was conducted to determine the greatest predictor for unsafe abortion and examined desire for pregnancy as an independent variable compared to the woman's age, number of previous deliveries and the person influencing the woman abort. A test of the full model against a constant only model was statistically significant, indicating that the

predictors as a set had a significant relationship with the independent variable ( $\chi^2 = 54.84$ ,  $p < 0.05$  with  $df = 26$ ). Parameter estimates demonstrated that only the type of person influencing the woman to abort clandestinely and unsafely made a significant contribution to the prediction ( $p < 0.05$ ). Both age and the number of previous deliveries were not significant predictors.

The Wald criterion showed that the significant relationship arose when women who had desire for pregnancy were compared to those who did not.

The significant relationship arose from advice to the groups by the man who caused pregnancy or by the mother of the woman. The Odds ratios show that the women who had desire for pregnancy was highly likely to end up aborting after advice from the man/mother as compared to those who did not have desire for the pregnancy, showing that these two advisors greatly influence the decision of the woman.

### ***Ownership of decision to abort clandestinely and unsafely***

Although 66.6% of women indicated that the decision to abort was personal, 33.4% said they were either not sure (10.6%) or that they were coerced into aborting by their social networks (22.8%).

Multinomial logistic regression analysis was done to examine the relationship between the woman's ownership of the decision to abort unsafely and her desire for pregnancy, her age, number of previous deliveries, abortions and previous miscarriages.

A test of the model with the independent variables against a constant only model was statistically significant, showing that the independent variables as a set had a significant relationship with the woman's ownership of the decision to abort unsafely (chi square = 51.43, df= 24,  $p < 0.05$ ).

The significance of the relationship was brought about by ownership of decision in relation to age and previous deliveries. Compared to those who were unsure of owning the decision to abort, those who owned the decision were 60% more likely to own the decision as age increased. Further, their odds of owning the decision increased with increasing number of previous births from 1.7 in those with no previous deliveries to 2.3, 3.6 and 18.3 in those with 1, 2 and 3 children respectively. Hence, the higher the number of children one had the higher the possibility she had of owning decisions for abortion. Compared with those who were unsure of their decision to abort, those who did not own the decision had strikingly opposite findings in relation to age and previous number of deliveries, the regressions being negative.

## **Discussion**

### ***Existence of Social Structures Support Provision of Clandestine Unsafe Abortions***

In one study done in Uganda, Nyanzi *et al*<sup>10</sup> conclude that abortion is a private matter that is socially scripted and collectively determined by wider social networks, peers, the community, religion and the law. The social dynamics in our study proved this fact. The study found that 95.3% of women undergoing unsafe abortions discussed their problem with a social contact either directly or indirectly and in the process got meshed in a well knit network that led them to the clandestine unsafe abortion provider. The study showed that there are structures within the community which have been laid to support access to clandestine abortions as characterized by positioning of agents in schools by providers of the service, referral by former clients, men and mother of the girl taking the role of identifying information and referral sources, and clandestine providers themselves having a referral relationship. The existence of social structures that support unsafe abortion may be the result of recognition that some pregnancies are not acceptable to the community. In one study in Tanzania, Plummer *et al* noted the belief that inopportune pregnancies could be suspended for months or years using traditional medicine. This of course is abortion using herbs and may mean that some pregnancies become unacceptable to the community when the timing is inappropriate. In another study in Ivory Coast, young women often chose abortion because they could not count on economic and practical assistance from parents in feeding and raising the child. For the same reason, parents also often pushed their children to have an abortion<sup>11</sup>.

More importantly, the norms that have been promoted by the community may be the reason for clandestine abortions. In a study done in Nigeria, it was found that social gatekeepers (parents, mass media, peers, teachers and others), local gender norms, and cultural narratives about sex, sexuality, and sexual expectations exert considerable influence on adolescents' ideas of sex, sexuality, and relationships<sup>12</sup>. It would appear that

communities do have escape paths if norms are not adhered to. Structures for accessing clandestine abortions may be one such escape route.

In our study, almost all social networks contacted advised on abortion. The man causing pregnancy and the mother of the pregnant woman were the most influential causing women with desired pregnancy to go for abortion. These two may be the appointed agents on behalf of the community to deal with the crisis of unacceptable pregnancy. The importance of the man in decision making for abortion has previously been noted in a Tanzania study where most informants opposed abortion as illegal, immoral, dangerous, or unacceptable without the man's consent, and many reported that ancestral spirits killed women who aborted clan descendants, passing a strong message that authorization of abortion by the man is the more appropriate thing<sup>13</sup>.

Looking at it from another perspective, the findings of this study are in line with the theories of health seeking behavior. They are coherent with the socio-behavioral theory or the Anderson model<sup>14</sup>, the theory of reasoned action<sup>15,16</sup> and the pathway model<sup>17</sup>. All these theories stipulate that people turn to their 'significant other', friends, relatives and other social contacts for direction and advice whenever a health condition occurs.

### ***Experiences of Individual Women Undergoing Unsafe Abortion***

Unsafe abortion was found to affect young women disproportionately in this community. Out of the 320 women treated with complications of unsafe abortion, 243 (75.9%) were below the age of 24 years.

It is important to note that the younger a woman was, the higher the variety of people she was likely to consult for advice on the pregnancy and the less the likelihood she had of owning the decision to abort. Further, most of the women having a desired pregnancy and ending up aborting unsafely were likely to be of the younger age. It may appear that the effect of social networks was greater the younger the age of the woman was. This finding is in agreement with previous studies on pregnancies among adolescents and young

people. In one study, young people were found to choose to either abort or carry on with the pregnancy based on either direct advice or pressure by peers and friends, or if they knew of their age mates who had taken similar actions within their communities<sup>18</sup>.

According to Matyasticket *al*<sup>19</sup>, the inner circle of an adolescent has a great influence on sexual behavior, pregnancy and abortion. In fact the beliefs of the associates of an adolescent can be used to predict sexual behavior outcomes in a community.

In terms of the demographic and reproductive profiles of the study area, the findings are in tandem with those of the Kenya Demographic and Health Survey of 2008 which found communities in Siaya County to have the lowest age at first sexual debut<sup>1</sup>. The average age at first sexual exposure was found to be 16.5 years. The same DHS also found that 73% of women aged 15 to 19 years and 37% of those aged 20 to 24 years who were sexually active did not use contraceptives.

The fact that almost all people contacted by the woman advised on abortion is an important point to note. It is possible that women chose to seek advice from people they thought would favor or side with their desire to abort. Colman and Harries in their studies in Texas and South Africa respectively found that women with unwanted pregnancies avoided talking to people they thought could stop them from having abortions and only sought advice from people with similar thinking as theirs<sup>20-21</sup>. The additional finding in this study however is that the person did not just advise but also connected the woman to the community structures that supported provision of unsafe abortion.

This study found that most women (85%) had termination of pregnancy in the first trimester. This is higher than findings by Gebreselessiet *al*<sup>22</sup> who found women presenting with first trimester incomplete abortions to hospitals to be 66%. His study however combined those terminating pregnancies with those having miscarriages. Just like in the study by Gebreselessie however where 80% of women presented with incomplete abortion, 87% of women in this study had incomplete abortion at admission.

## Conclusions

Social structures that support access to clandestine unsafe abortions existed in the communities of study and made unsafe abortions thrive.

The social structures were more beneficial to younger women who depended more on social networks for support.

Intermediaries existed and linked the woman to unsafe abortion provider.

It is recommended that:

1. Interventions to reduce unsafe abortions target social structures which support access to clandestine abortion services.
2. Special attention is given to young women who depend more on social structures for abortion decisions and access.
3. Support to individual women with complications of unsafe abortions considers involving social networks who have a stake in decisions for abortion.

## Contribution of Authors

Joachim Osuri conceptualized and led the study and writing of the paper.

Elizabeth Bukusi provided content expertise oversight in the subject area of study.

Isaac Mwanzo and Alloys Orago reviewed the methodology, data collection tools and data analysis and ensured accuracy and soundness of the study.

All the authors have approved the study and the publication of this paper.

## References

1. Kenya National Bureau of Statistics and ICF Macro. (2010) Kenya Demographic and Health Survey: 2008-09. Calverton, Maryland: KNBS and ICF Macro
2. World Health Organization. (2010) Trends in maternal mortality: 1990 to 2008. Geneva: WHO Press.
3. World Health Organization. (2011) Unsafe abortion. Global and regional estimates of the incidence of unsafe abortion and associated mortality in 2008. 6<sup>th</sup>ed. Geneva: WHO Press.
4. Singh S. (2006) Hospital admissions resulting from unsafe abortion: estimates from 13 developing countries. *Lancet* 368:1887-92.
5. Grimes A. (2003) Unsafe abortion: The silent scourge. *Br Med Bull* 67:99-113.
6. Singh S, Wulf D, Hussain R, Bankole A and Sedgh G. (2009) *Abortion worldwide: A decade of uneven progress*. New York: Guttmacher Institute.
7. Kenya Penal Code. (1973) Sections 158-160, 214 and 240.
8. Kenya Constitution (2010). Chapter 4 part 2 Art. 26(4). Available at: <http://www.kenyaembassy.com/pdfs/The%20Constitution%20of%20Kenya.pdf>. Accessed 19 April 2012.
9. Cross R., Borgatti S., Parker A., (2001) *Beyond answers: dimensions of the advice network*, *Social Networks* 23 (2001) 215-235
10. Nyanzi S., Nyanzi B. and Bessie K. (2005); "Abortion? That's for Women!" *Narratives and Experiences of Commercial Motorbike Riders in South-Western Uganda*; *African Journal of Reproductive Health* Vol. 9, No. 1 (Apr., 2005), pp. 142-161
11. Svanemyr J., Sundby J. (2007); The social context of induced abortions among young couples in Côte d'Ivoire, accessed online at [http://reference.sabinet.co.za/sa\\_publication\\_article/ajrh\\_v11\\_n2\\_a2](http://reference.sabinet.co.za/sa_publication_article/ajrh_v11_n2_a2)
12. Izgbara C. (2005), The Socio-Cultural Context of Adolescents' Notions of Sex and Sexuality in Rural South-Eastern Nigeria Accessed online at <http://sexualities.sagepub.com/content/8/5/600.short>
13. Plummer M., Wamoyi J., Nyalali K., Mshana G., (2008); *Aborting and Suspending Pregnancy in Rural Tanzania: An Ethnography of Young People's Beliefs and Practices*, Accessed online at <http://onlinelibrary.wiley.com/doi/10.1111/j.17284465.2008.00175.x/abstract>
14. Anderson R. and Neuman J. F., (1975), Societal and Individual Determinants of Medical Care in the United States, *Milbank Memorial Fund Quarterly/Health and Society* 51:95-124
15. Ajzen, I. (1991), The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, p. 179-211.
16. Good C. M., (1987), *Ethnomedical Systems in Africa*, New York; the Guilford Press
17. Colman S., Ted J. (2009), *Minor's behavioral responses to parental involvement laws: delaying abortions until age 18*, *Perspectives on Sexual and Reproductive Health*, Vol 41, No. 2 Jun 2009
18. Kumar U., Baraitser P., Morton S., Massil H. (2004), *Decision making and referral prior to abortion: a qualitative study of women's experiences*, *Journal of Family Planning and Reproductive Healthcare* 2004, 30(1): 51-54
19. Gebreselessie H., Levondsky B., Hawa P., (2010), *Abortion in Malawi: Results of a study of incidence and magnitude of complications*, Draft report presented to the Ministry of Health.
20. Cross R., Borgatti S., Parker A., (2001) *Beyond answers: dimensions of the advice network*, *Social Networks* 23 (2001) 215-235
21. Arai L., (2007), Peer and neighborhood influences on teenage pregnancy and fertility: Qualitative findings from research in English communities, *Health & Place* 13 (2007) 87-98.

*Osur et al.*

Social Networks and Unsafe Abortion

22. Matyastik B., Karen S., Wampler (2008): Daughters' attitudes toward sexuality; a qualitative study of

southern baptist mothers' and their daughters *Journal of Adolescent Research* 2008; 23; 31