Introduction

The overall interest of this paper is to document personal experiences of unsafe abortion and related repercussions among women and position the issue as a public health problem in Kenya. Unsafe abortion may be defined as, for the purposes of this paper, procedures used for terminating an unwanted pregnancy, legally or illegally [1], performed either by unqualified persons using inappropriate tools or in an environment lacking the minimal medical standards or both [2]. Unsafe abortions may also be self-induced using crude techniques or by use of herbal and pharmaceutical abortifacients without the involvement of a skilled or semi-skilled provider or the necessary support [3]. Unsafe abortion also applies when complications resulting from a miscarriage are inappropriately managed [4]. It also means that women's health and safety are compromised leading to unnecessarily high rates of maternal morbidity and mortality [5].

The term abortion refers to pregnancies that have been voluntarily or involuntarily terminated before reaching foetal viability. The World Health Organisation (WHO) recommends that a foetus is viable when the gestation period has reached 22 weeks or more, or when the foetus weighs 500g or more [6]. However, for the general public in Kenya the term 'abortion' is unhesitatingly associated with voluntary clandestine operations carried out in squalid conditions.

The current Kenyan constitution allows abortion only for medical reasons. Under the current law, a woman found guilty of performing an abortion is sentenced to seven years imprisonment while the attending doctor is jailed for 14 years [7]. Nonetheless, this law is not a major deterrent as many women continue to procure abortions and many abortionists risk providing the services surreptitiously to meet the high demand. Unfortunately, many of these abortions are unsafely induced as evidenced in this study.

Sufficient scientific evidence from hospital-based studies exists to show that unsafe abortion is a public health risk in Kenya and sustains high rates of maternal morbidity and mortality [8]. The actual magnitude is, however, unknown. This is because service seeking in communities is clandestine, therefore largely undocumented. This study of communities in Mombasa and Kilifi districts, Coast Province of Kenya attempts to fill in this gap. The inhabitants of the two districts are largely from the 'Mijikenda' (a composition of nine ethnic groups) communities. Kilifi, the rural site, is one of the poorest districts in Kenya with more than half its inhabitants living below absolute poverty. It is a region of high infant (85/1000) and maternal mortality (423/100,000) rate. This is normally attributed to the high prevalence of malaria. Accessibility to health services is poor with long distances between clinics. Over 90% deliveries are attended by traditional midwives and contraceptive prevalence is less than 2% [9]. Mombasa, a cosmopolitan port city of the Indian Ocean is composed of the 'Mijikenda' and Swahili-speaking people and economic migrants from upcountry and of eclectic ethnic backgrounds. Study participants were from low/medium income residential areas within close proximity to well-equipped public and private health facilities.

Methodology

Between April-July 2005 in-depth discussions were held with women in households and women presenting with incomplete abortions in the obstetric wards at the CPGH. The eligibility criteria targeted women with a pregnancy or birth history in households and women suffering post-abortion complications and admitted in public health facilities. An attempt was made to have a mix of women from various socioeconomic

and demographic characteristics[a] to help collate diverse experiences. Recruitment of eligible women was first done with the help of a carefully selected team of men and women known and trusted within the communities and the health sector, and those who hold a moderate view on abortion. After recruitment by our point nurse and in full knowledge of study objective and risks, a woman volunteer for the study was then introduced to the interviewer and verbal informed consent was sought for a second time before recorded interview commenced.

At the health facilities interviews were held in the Family Planning Counseling Room within the obstetric ward while the venues for household interviews were flexible and of the woman's own choice to ensure her comfort. These included the woman's house, the interviewer's house, community hall, beach front and private medical practitioner's clinic. Due to abortion restriction in the country and the sensitive and private nature of the subject, our discussions in households were of broader reproductive health experiences. In some cases the interviewer had prior information from the recruiting team that a woman booked for interview had an induced abortion history. However, the interviewer never made this known to the woman and only relied on her obstetric history to obtain this information. Only when a woman disclosed an induced abortion experience did discussions narrow and probe this issue. Disclosure was one of the greatest challenges in the study, more so at health facilities than at household level. This could be partly because hospital cases were very current experiences and the women were still in a delicate emotional state and had fear of being reproached and/or reported to the police by hospital authorities as was done in the past.

Empathetic dialogue [10] was used to probe the experiences of all women carefully and sensitively. Women disclosed to the study their experiences of induced abortion voluntarily and we feel greatly privileged to have been privy to such personal and sensitive experiences. The identity of all the women interviewed is protected by use of pseudonyms.

Using the above methodology, four women were interviewed at the CPGH while they were on treatment, 14 in urban households and 10 in rural households. In the urban site 12 of the unsafe procedures were said to be 'successful', meaning they did not result in any noticeable injuries, but 10 were unsuccessful. Six of these complications were treated in private hospitals while four were managed at the CPGH. In the rural site, four out of the nine unsafe procedures were unsuccessful. Two were treated at the Kilifi District Hospital (KDH) one at the private abortionist's 'clinic' and one by use of 'kienyeji' (local) herbs at home.

Findings

a. Characteristics of women at the time of unsafe abortion (see fig. 1 and 2)
Forty-nine women reported having had at least one personal experience of abortion with a total of 64 abortions. A total 28 women reported 31 terminations by unsafe means. At the time of unsafe abortion experience, most urban women were aged between 16-25 years, single and childless. Similarly, three of the rural women who were unmarried at the time they experienced unsafe abortion were aged below 18 years. The rest of the rural women were spread over an older age range 20 -32 years and were either married, separated, or widowed. Some of the women were in low paying occupations while most were unemployed, housewives or students from poor economic backgrounds. None of the women were using any reliable means of

[a] These include age, marital status, occupation and religion.

pregnancy prevention at the time they conceived the aborted pregnancy. This study found that all women who lacked financial support, or were in geographically isolated areas where private health facilities with good quality of care were limited, regardless of their age, marital status and years of schooling, tended to be exposed to the risk of unsafe abortion and related repercussions.

b. Accessing unsafe abortion services

Due to the legal restrictions on abortion in Kenya, there were obviously no guidelines for the prevention of unsafe abortion but only for management of complications that may arise as a result thereof. This left an open window for individual women and willing abortionists to fill in the huge gap left of tackling the challenge of unwanted pregnancy that they did not desire to carry to term. Different methods of terminating a pregnancy were well known in the communities and womenfolk assisted one another in the process. Access to a method to terminate a pregnancy was largely determined by availability of finance. The '*Kienyeji*' (traditional) abortive products were widely and cheaply available, sometimes free because women know the bushes with abortive herbs and the recipes, therefore did not always involve the abortionist. The '*shubiri*'[b] rocks were readily and cheaply available in the local shops and market.

I just spent five shillings to buy the 'shubiri'. Asha

If you have money you'll go to hospital if not you will abort using 'kienyeji' Nadia.

Even when the *'kienyeji'* abortionist's services were utilized, the cost was still relatively less than that of safe abortion services due to their less formal structure, were negotiable and could be paid by installments or in kind as happened in the rural area where money was often scarce.

I didn't pay at once in fact I didn't have enough (money) *and I had to give him a goat instead*. Rehema

He (private clinical officer) *asked me for Kes 1,500. I told him I only had half of that and he said he will help me but I must take the other money to him later so I was going to pay him slowly.* Rukia

c. The typology of the unskilled abortionist (refer to figures 3 & 4)

The study found two categories of unsafe abortionists and techniques can be categorized in to i) household based and ii) 'clinic' based. In the household based abortion, either the woman herself, or her female relatives or friends procured the abortion, while the clinic based abortion involved other neighbourhood private 'clinic' proprietors such as the '*Mkunga*[c]' (the traditional midwife), the '*mganga*' (the traditional medicine-man), and the 'doctor'. Some private clinics were situated in the neighbouring shopping centres of the suburbs while others operated from the private home of the 'clinic' owner. Where self –induced attempts and home remedies failed the majority of the women resorted to seeking services from surreptitiously-known modern and traditional clinics.

d. Levels of experiences with abortion services

i. at the household level

Most abortifacients were commonly used to cure minor ailments at home by self prescription. Literature has it that although abortifacients were purportedly used from

[b] Black shiny herbal gum, very bitter and popular home remedy for stomach problems

[c] Mkunga (sng.) is a Kiswahili word for traditional birth attendant (pl.: wakunga)

time immemorial to precipitate abortion they were ineffective and deadly poisons debilitating the woman at best [11]. Women in this study ingested these self-prescribed substances in noxious concentrations and sometimes repeatedly to induce the foetal expulsion process. Yet most of these attempts were reported to have remarkable success especially *when you just discover pregnancy, that is when you just miss your periods, then it works but from eight weeks it's hard*, says Tina. This is not to say that these herbal potions were safe but that they were simply reliable in aborting a pregnancy.

Financially I was not ok so I had to use 'shubiri'. I put in a cup, stirred and drank since it was still small, just a month; that was at daytime. By night it did the job -Asha.

Separated women like Zena managed to secure financial support from their sexual partners without difficulty because culture imposed a heavy fine, '*malu*', on a man found to have had coital relations with another man's wife.

I took only six tablets, but I thought if I continue I can kill myself so I stopped. I thought, "what will I do?" I had to go to the man responsible and explained. He said "no problem the decision is yours. I'll give you money to go look for someone who can terminate it". Zena

The abortifacients were sometimes obtained and prepared by a female relative-mother, maternal aunt, and sister or a friend, often with previous abortion experience and friends working in chemists. The collaborators were generally persons close and trusted by the woman.

It is my mother who looked for the herbal medicine. There is a friend of hers who told her about 'shubiri'. She boiled and gave me to drink. Dora (2nd abortion)

She (maternal aunt) *told me, "Nafisa, since now things are the way they are, pray to God, we look for a way out, we abort it, and do not go to hospital because if you do, it will be a big issue". She went and looked for these 'kienyeji'. She boiled some for me and gave me to drink.* Nafisa

There was empathetic support for the woman and the need for disposing of the unwanted pregnancy was largely understood. It may seem ironical but women prayed to God for safety because they were aware of the high risk of these self-induced procedures. Other ingestives used were such as the *passion fruit leaves*, *sisal-looking plants, quinine,* 'fansidar[d]' (anti-malaria drugs) family planning pills. Metallic salts from *boiled razor blades* were also used as abortifacient. One case of an intrusive method was found in the household. Mercy, a rural young woman, provides this study with more evidence that women chose unsafe means with high risk not because they do not understand the dangers, but because they have no finances but yet feel very strongly that they must terminate an unwanted pregnancy.

ii. at the private 'clinic' level

These included paramedical practitioners and the 'doctors'. Women relied on what others had to say from their own or others' experience with regards to the skill of the abortionist. The type of abortionist consulted also depended on affordability. The '*Mkunga'* and '*Mganga wa kienyeji*' (traditional doctor) were cheaper than the 'doctors' who tended to charge more. While the herbalist made use of herbal abortifacients the 'Mkunga' and the 'doctors' utilized techniques that were intrusive involving insertion of an instrument through the cervix into the uterus to trigger the

[d] Fansidar is a brand name of an anti-malaria drug with a sulfur base.

abortion process for example the catheter. The Kiswahili term '*chokora*' (with no English equivalent, but could literally mean disturbance or causing turbulence) commonly used to describe the procedure was telling of the unskilful and risky business. Women repeatedly described the excruciating pain caused as worse than the normal labour pains. Most of the unskilled abortionists lacked the infrastructure and general capacity to offer abortion services yet continued to exploit many desperate women on a daily basis who readily risked their lives to have their unwanted pregnancies terminated and be spared the social disgrace and insufferable economic burden that comes with unwanted childbearing

iii. At the traditional herbalist (the '*Mganga wa kienyeji'*) **level**

The traditional herbalists mentioned in the study were men who had good knowledge of herbal abortive methods. These potions characterized by their extreme bitterness, were portent in pregnancy termination with minimal or no observable injuries or poisoning. Fatma began her career as a commercial sex worker in an attempt to raise money for termination of her first pregnancy.

So you know how I got that Kes 1, 000? I just would get a man and negotiate and if its using 'Trust' (condom brand) *we just go and I save little by little, I would rather stay hungry and get that money so that I can take it to that place* (herbalist's) *and get that service. In my heart I knew what I was doing. You can't believe it life can be so tough.* Fatma

It was Amina's second abortion in less than a year and the traditional herbalist did some bizarre procedure that this study perceives as coital abuse. Certainly, there were proper tools that could aid in inserting abortive medicines in to the vagina or the woman could have been advised to self-insert the same.

He said 'before I give you this water I have to take some 'dawa' (medicine) *and apply on my 'mdudu'* (referring to penis) *and then insert it inside of you'. I saw him apply something for sure and then he entered me and pushed. For a long time I used to be worried that maybe I contracted some disease because he entered me just like that without any protection.* Amina

iv. At the '*Mkunga*' (Traditional midwife) **level**

The '*Mkunga'*, always a woman, was located in the rural area several kilometres from the Mombasa city and was an alternative after self-abortion attempts failed. The pregnancy by this time was often in mid-trimester of pregnancy (sixteen weeks) thus women always suffered severe, debilitating injuries. The typical long crotchet needle was the characteristic tool the '*Mkunga*' inserted in to the uterus to puncture the amniotic sac. Either the 'Mkunga' had some idea of the anatomy of the woman's reproductive system or it was simply by guess work as she claimed to know exactly where to puncture.

*She (*the *'Mkunga') took me to the room where she does the deliveries. She oiled me with coconut oil. She then told me to stay calm because she was going to insert her hand and poke the pregnancy with the crotchet needle until the placenta breaks and you know for her she really puts it in because she is used to that job of deliveries. She told me "be calm I will poke you where I know I am poking". So I stayed calm and as I did so I felt 'chwiiii', she poked. "I have finished" she said. She told me to put on cotton wool before leaving because it may start bleeding on the way as I go. I went back home and the following day at night I started having stomach pains. It pained a lot, so much and then blood clots started coming out. It aborted but with a lot of problems.* Farida

Endurance was the advice given to women visiting the '*Mkunga*' by their friends who had been on that path before. *I was told to go to that 'mama' but I must be prepared to endure* -Saida.

v. At the 'doctors' level

The 'doctors' referred to in this study were people who had had exposure working in health care facilities and included mortuary attendants, clinical officers and other cadres of retired hospital staff. They had no abortion skills but continued to handle the largest number of women experiencing unsafe abortion at 'clinic' level. Although both male and female 'doctors' were mentioned in the study, more male 'doctors' performed abortions. To the patients and the general public, any person working in a clinic or hospital was referred to as 'doctor', more so if they were wearing the white coat. Women described the procedures used as *an inhuman act* due to the excessive handling and intrusion into the woman's private parts and by male 'doctors'. For many women the abortion at the 'doctor's was the first obstetric procedure they were going through therefore traumatizing. Public health officials informed this study that their only primary concern was to rout clinics that provided unsafe abortion services as they destroyed the health of many young women and increased the workload at the health facilities due to due to resulting complications. However, they turned a blind eye on safe abortion providers.

e. Experiences with complications

Following the above induced abortion experiences women reported complications that ranged from temporary to permanent injuries and comprise sporadic bleeding; excessive bleeding; irregular periods; backache; chronic uterine pain; weight loss and paleness due to excessive haemorrhage (perhaps anaemia); incomplete abortion; delay in conceiving in the future (temporary infecundity); cervical incompetence; ulcers; sepsis and from study observation two women, one of whom we had recruited for interview, relapsed in to a coma and later died. Cervical incompetence, a condition of overstretched cervix often associated with previous dilatation of the cervix for uterine curettage or suction aspiration, was widely reported. Most women described it using the expression '*kizazi kiko chini*' (literally meaning *uterus is low or dropped uterus*). A damaged cervix is liable to infection and more importantly leads to permanent damage of the internal cervical sphincter so that spontaneous late abortion or premature delivery occurs in subsequent pregnancies. The most frequently reported complications of unsafe abortions were incomplete abortion.

Women who procured abortions at household level reported the least suffering while those who visited 'clinics', in particular the 'doctor' and the '*Mkunga*' suffered the most complications. It was not easy to maintain secrecy owing to the severity of the pains and the weak condition of the woman as the products of conception expelled subjecting women to indignity and embarrassment sometimes before the very people they feared the most to disappoint.

Now at home while I was seated I felt like passing urine then something fell and my mother saw it because it was a big fleshy clot of blood. My mother was shocked and asked whether I was aborting a pregnancy! It was chaos because I am Muslim, my parents were so angry. I had to be taken to the hospital because things were just falling and they were worried that I would die in their house. Saida

of course I gave birth, that pain is not like the labour pains at delivery and I was emitting another stench you just could not sit with me like this. The wastes that were inside were causing all the problems. Until my mother asked me what is the matter with you so I had to tell the truth. You feel general ache in the whole body and you

think you got malaria; the bleeding is excessive and inside it is like you are rotting; is that not death? Chao

The traditional design of the 'swahili' house found in Mombasa has one main front entrance with several rooms inside, which may be rented by different tenants. As Rukia wailed in pain in her boyfriend's room she attracted the attention of neighbours who luckily intervened taking her to hospital.

So I was just alone there without anybody to assist me to the road and where I live to get to the road it is a bit of a distance. When I get up I fall because I was so dizzy. Aaah! I was crying. The neighbours carried me at night, around 10pm or so, they had to get a wheelbarrow and take me to hospital. Rukia

i. Living with abortion-related morbidities

All women who reported living with morbidities were from the urban site. Women were faced with social misery as they encountered temporary infecundity and habitual miscarriages later in marriage when a pregnancy was most desirable.

After that I took very long to conceive because after getting married I stayed for two years. I was not getting pregnant until I was being told "you are not giving birth what is wrong with you?" Farida

Flashbacks of '*the woman with the long crotchet needle'* haunt these women. Salma lives with chronic uterine pain and her productive and reproductive life is severely curtailed. The women learn to cope with their suffering and keep it confidential. This may hamper efforts to seek appropriate treatment. Most women wish to have gynaecological examinations and advice but lack someone to provide it. Specialized gynaecological treatment in private clinics is not affordable.

I aborted the second pregnancy, and it is the one that has given me problems until now. I am married I am staying well but now my uterus only it disturbs me. The uterus ('uzazi') pains me. I cannot sit for too long, I cannot cope with much work; sometimes even making love with my husband is difficult because the uterus pains, do you see and now I cannot tell at home (marital home) *because he* (husband) *does not know that I did that business*. Salma

Almost all married women from the rural site did not experience injuries resulting from unsafe abortion. This can be largely explained by the relatively early intervention after discovery of unwanted pregnancy among married women compared to the unmarried, spousal support in the process, and the fact that the rural abortionist was skilled in post-abortion care, reduced risk considerably despite dismal sanitary conditions. This means that unmarried women disproportionately suffered morbidities. Thus the phenomenon seen in health facilities of young unmarried women suffering complications resulting from unsafe abortion does offer a reflection of the reality in the communities. Hospital studies have also reported that adolescents are often overrepresented in public health facilities since they typically have greater than average difficulty in obtaining a safe abortion [12].

ii. Post-abortion care (PAC) Services

Women experiencing complications of unsafe abortion were in a precarious health condition that required emergency attention. Rarely did women seek treatment by themselves but were brought in unconscious state or at best in helpless conditions. There was still stigma and fear of retribution by health providers that made unmarried women reticent to seek obstetric services. Unmarried women tended to refer to Good Samaritans who escorted them to hospital as well as relatives, such as cousins. At

the CPGH unmarried Muslim women brought to hospital by their family often had a male relative who posed as the husband of the woman. However, medical staff informed the study that it was not in their interest to investigate whether the cause of incomplete abortion was a result of induced or spontaneous abortion. Furthermore, it was not always easy to distinguish between the two as fewer women used invasive methods of abortion.

On average it took about one week or longer from the time of unsafe induced abortion to finally get to hospital for treatment of complications arising. A renowned obstetrician/gynaecologist at the Nelson Mandela School of Medicine, University of KwaZulu-Natal, Prof. Moodley notes that it is the delay in seeking professional assistance after an unsafe abortion that aggravates the problem such as infections and anemia due to excessive bleeding (personal communication: 2006). However, even on admission at the CPGH, women were booked for the manual vacuum aspiration (MVA) only after the mandatory fees of Kenya Shillings 1 500 (US$ 21) had been paid and the payment voucher produced as evidence. This was the cost-sharing policy at the CPGH meant to ensure sustainability of services. Majority of these women were the urban poor, and many were there by secret after being escorted by Good Samaritans. They lingered in the obstetric ward sometimes for longer than five days before MVA was finally done. Although the hospital administration did occasionally review and waiver what they considered 'genuine' cases of women who had stayed for long due to inability to pay, it defeated the basic purpose of PAC.

This study found that all urban women who had experienced unsafe abortion, including those treated for injuries at the CPGH and other renowned private hospitals, did not receive family planning counselling and methods useful for informed decision making. This contributed to repeat unwanted pregnancy and consequent unsafe abortion.

I did not use. I did not even stay a year, I got another one (boyfriend) *and continued with him like that without using protection and I conceived another one* (pregnancy) Amina (First abortion)

No, (name of private hospital) *told me nothing about family planning. They just 'washed' me and told me "had you come to us we would have done a safe abortion*". Saida

Conventional wisdom in the community, including some providers, had it that use of hormonal contraceptives threatened future fertility [13].

Some people say they mess up the uterus and you will not give birth again. So myself since I have not given birth yet I cannot use. (Rukia)

The social desire to prove fertility after abortion also made sustained contraceptive usage a complex decision. Therefore most women reported non-use of reliable pregnancy prevention methods before and after pregnancy [13]. Women who had experienced contraceptive failure need special counselling to restore their confidence in family planning methods [13]. Medical staff informed the study that much as they have the skills and willingness to provide comprehensive management of post abortion care, shortage of staff and competing health demands in the ward made the intervention a less urgent task. This was in sharp contrast to the high acceptability rate expressed by providers in favour of new responsibilities created by providing post abortion family planning services in the ward by ward staff model during the feasibility study [4].

Discussion and recommendations

The proliferation of unsafe abortion services in the communities was a result of the demands by women desperate to terminate unwanted pregnancy at low cost. This therefore placed them in a vulnerable position. Unmarried and financially disadvantaged out-of-school women and schoolgirls were the hardest hit victims of unsafe abortion in communities. Strategies to improve the socio-economic status of women for gainful employment should be promoted.

Strengthening comprehensive management of the post-abortion care model is crucial to the reduction of repeat unwanted pregnancies and consequent abortions. The intervention has been proved in this study and in the feasibility study by Solo et al [4] to have the tremendous potential to increase receptivity and acceptability of family planning methods and further obstetric care. There is therefore need to have a fulltime professional nurse, for the provision of PAC services, in the gynaecological ward in both public and private health facilities. Although the feasibility study showed that majority (89 per cent) of providers found the new responsibilities acceptable while only seven felt overwhelmed [4], this study shows implementation of post-abortion care was a challenge. The seven providers who said they felt overworked provided the real picture of the current situation.

MVA services at the CPGH should be free as in the rural Health Centres to cater for the large numbers of urban poor women and others from rural areas who seek PAC services in this referral facility.

Registered clinic owners who are usually clinical officers and midwives (mid-level health service providers) should be trained in PAC including the use of MVA in treating complications of incomplete abortion. This would ensure that PAC services were easily accessible to women and at reduced cost.

Herbal abortion in early pregnancy did not present with complications and women quickly resumed menstruation. Research institutes like KEMRI (Kenya Medical Research Institute) and IPR (Institute of Primate Research) and pharmaceutical firms should put in place research protocols to scientifically investigate and establish the chemical compositions of these popular herbal abortifacients so that the public can be informed of potential dangers and benefits, if any. In particular the *shubiri* (herbal gum), *muharubaini* (neem) and the *sisal-looking plant* were popular and effective local remedies with 'successful' outcomes. Scientific research in India has shown the neem oil to have contraceptive and abortifacients properties. [14]

In this revolutionary age of medication abortion the woman should be empowered to take full control of her reproductive health care in privacy, dignity, and with reduced morbidity [15]. The decision to carry a pregnancy to term or not is absolutely personal and private to the woman or the couple so the public has no right to interfere and enforce their choice. This however requires an enabling legal environment that is in keeping with new knowledge. This study therefore supports other studies done in Kenya that call for the revision of abortion legislation [16, 17, and 18]. Studies in countries where abortion has been legalized have consistently demonstrated the public health benefits that accrue to women and communities. Harrison et al [19] and Moodley and Akinsooto [20] show that following implementation of the Choice on Termination of Pregnancy Act 92 of 1996 in South Africa, the numbers of unsafe abortions are presumed to have declined. For example at the King Edward's Hospital, a public health facility in KwaZulu-Natal Province, the incidence of incomplete abortion in gynaecological admissions had dropped from 24.5% to 4.5% [20]. Berer exhibited a clear pattern in more than 160 countries demonstrating low

unsafe abortion incidence and much reduced mortality related to unsafe abortion where legislation permits abortion on broad medical, social and economic grounds or on request as compared to legislation that greatly restricts abortion [21]. This goes to demonstrate that there lacks political will to prevent these deaths as Dr. Mahmoud Fathalla regrets that

"*women are not dying of diseases we can not treat, they are dying because societies have yet to make the decision that their lives are worth saving*" [22]

Acknowledgement
The paper is part of my doctoral unpublished thesis titled: "Unsafe termination of pregnancy: choices and opportunities in Kenya". The investigation received financial support from the Special Programme of Research, Development and Research Training in Human Reproduction, World Health Organization. To them I am truly indebted. Special thanks to all the women volunteers who boldly shared their private life experiences. Many thanks to Prof. J. Moodley, Department of Obstetrics & Gynaecology, Nelson R Mandela School of Medicine, University of KwaZulu-Natal, Durban South Africa for our discussions on this subject; and to my promoter Prof. Eleanor Preston-Whyte, University of KwaZulu-Natal who read through the later version of this paper and provided useful insight. This paper was presented at the 8th Postgraduate Conference, Faculty of Humanities, Development and Social Sciences October 28, 2006 at University of KwaZulu-Natal, was shortened and further revised for RHM, many thanks to Marge Berer, RHM Editor, for her contribution that led to this later version.

REFERENCES

1. Grimes DA. Unsafe abortion: the silent scourge. British Medical Bulletin 2003; 67:99-113.
2. World Health Organization. Unsafe Abortion: A tabulation of available information, 3rd edition ed. Geneva, 1997.
3. Shah I, Ahman E, Age patterns of unsafe abortion in developing country regions. Reproductive Health Matters 2004; 12(24):9-17.
4. Solo J, Billings LD, Aloo-Obunga C, et al. Creating linkages between incomplete abortion treatment and family planning services in Kenya. Studies in Family Planning 1999; 30[1]:17-27.
5. Population Reports. Maternal deaths can be prevented; injuries avoided. *XXV* (1): 4 (1997).
6. Oats J, Abraham S. Miscarriage and abortion. In: Oats J, Abraham S (editors) Fundamentals of obstetrics and gynecology, eight ed. London, Elsevier Limited, 2005, pp. 103-110.
7. Lema VM & Kabebri-Macharia J, A review of abortion in Kenya. The Centre for the Study of Adolescence; English Press Ltd., Nairobi, Kenya, 1992; p.35-39
8. Gebreselassie H, Gallo FM, Monyo A, et al. The magnitude of abortion complications in Kenya an International Journal of Obstetrics and Gynaecology September 2005; Vol. 112, pp. 1229-1235
9 Ministry of Planning and National Development, District Development Plan 2002-2008 Government of Kenya, 2003
10. Rasch V Muhammad H, Bergstrom ES. Self-reports of induced abortion: an empathetic setting can improve the quality of data. American Journal of Public Health 2000; 90: 1141-1144.
11. Dellapenna JW, Dispelling the myths of abortion history. Carolina Academic Press, Durham North Carolina 2005:43)
12. Bankole A, Singh S, Haas T, Characteristics of women who obtained induced abortion: A worldwide review. International Family Planning Perspectives 1999; 25[2]:68-77.
13. Ndunyu LN. Unsafe termination of pregnancy: choices and opportunities in Kenya. School of Development Studies, University of KwaZulu-Natal, Durban unpublished thesis, Chapter 4 (2007)
14. http://www.national-academies.org/legal National Academy of Sciences NW Washington, DC 2006 accessed 21/08/06
15. Okonofua, F.E. Misoprostol and women's health in Africa. African Journal of Reproductive Health 9 (1): 7-9 (2005).
16. Onyango-Ouma et al. Health policy and planning -Ministry of Health, 2001.
17. Katini NO. Alternative access to abortion services under restrictive law: The Kenyan Experience. In: Klugman B, Budlender D (editors). Advocating for abortion access, eleven country studies. Witwatersrand University Press, Johannesburg, 2001; 173-197.
18 Lema VM, Rogo KO, Kamau RK. Induced abortion in Kenya: its determinants and associated factors. East Africa Medical Journal 1996 March; 73[3]:164-8.
19 Harrison, A, Montgomery TE, Lurie M, et al, Barriers to implementing South Africa's Termination of Pregnancy Act in rural KwaZulu-Natal. Health Policy and Planning 15(4): 424-31 (2000).
20. Moodley J, Akinsooto VS, Unsafe abortions in a developing country: Has liberalization of laws on abortions made a difference? African Journal of Reproductive Health 7 (2): 34-38 (2003).
21. Berer, M. National Laws and Unsafe Abortion: The Parameters of Change. Reproductive Health Matters 2004; 12(24):1-8.

22. Wolf, M. Unsafe Abortion in Africa: Introduction and Background. In: Action to reduce maternal mortality in Africa. A regional consultation on unsafe abortion Addis Ababa, Ethiopia, March 5-7 2003

Figure 1: Characteristics of the 18 urban women at the time of unsafe abortion

Name	Age at abortion	Marital status	Years school	Occupation	Religion	Family planning method	Obstetric history
Nafisa	18	single	8	Student > dropped-out	Muslim	none	1 abortion
Asha	25	single	7	hairdresser	Muslim	Injection stopped	1 child > 1 abortion
Nadia	26	married	8	hairdresser	Muslim	none	2 children > 1 abortion
Ebi	18	single	12	Student continued	Christian	none	1 abortion > 1 child
Linda	17	Single	8	Student > dropped-out	Christian	none	2 abortions > expectant
Francie	17	single	11	Student continued	Christian	none	1 abortion[a]
Farida	18	single	8	Student > dropped out	Muslim	none	1 abortion > 1 miscarriage > 1 child
Salma	18	single	7	Student > dropped-out	Muslim	none	2 abortions > 1 child
Chao	24	single	12	Casual hotelier	Christian	Misused pills	1 child > 1 abortion
Amina	17	single	7	School-drop-out	Muslim	none	2 abortions > 1 child > 1 miscarriage
Dora	16; 20	single	12	Student > continued	Christian	none	2 abortions
Saida	21	single	14	Student continued	Muslim	none	1 abortion > 1 miscarriage > 1 child
Dina	21	single	12	unemployed	Christian	none	1 abortion > 1 child
Tina	20	single	14	unemployed	Christian	none	1 abortion > 1 child
Rukia[b]	17	single	8	unemployed	Muslim	none	1 abortion
Riziki[b]	20	single	8	Casual factory worker	Christian	attempted pills a few days	1 abortion[c]
Kadzo[b]	20	single	7	unemployed	Traditional	none	1 abortion[c]
Kamene[b]	24	single	8	Casual factory worker	Christian	none	1 abortion

[a] Francie had 3 abortions in total but only the first one was unsafe and therefore of interest in this paper.
[b] Women interviewed at the CPGH with complications of unsafe abortion; all had post-abortion contraceptive counseling and received injection method
[c] Riziki and Kadzo had each 2 abortions; the second one in each case was unsafe

Figure 2: Characteristics of the 10 rural women at the time of unsafe abortion

Name	Age at abortion	Marital status at abortion	Years school	Occupation at abortion	Religion	Family planning method	Current Obstetric history
Mercy	18	Unmarried	13	Student	Christian	none	Nulliparous 1 abortion
Rehema	20	Married	12	Self-employed	Traditional	Injection failure	2 children > 1 abortion
Anita	22	Married	00	Housewife	Christian	none	4 children > 1 abortion > 1 child
Sandra	13	Unmarried	05	Student dropped out	Christian	none	1 abortion > 4 children
Fatma	27	Widowed	10	Commercial sex worker	Muslim	Stopped pills, stopped injection	2 children > 2 abortions > 1 child
Neema	30	Separated	12	Farmer	Christian	Stopped pills	7 children > 1 abortion
Munira	32	Married	06	housewife	Muslim	Stopped pills	1 child > 3 miscarriages > 4 children > 1 abortion
Zena	30	Separated	00	Self-employed	Muslim	none	5 miscarriages > 2 children > 1 abortion
Pendo	32	Married	08	Housewife	Christian	Injection failure	4 children > 1 abortions
Halima*	15	Unmarried	05	Nursing mother, casual labourer	Muslim	none	1 child > 1 abortion > 3 children > 1 miscarriage

* Halima had 4 abortions in total but only the first one reported here was unsafe.

Figure 3: Unsafe abortion methods, provider type, morbidities, and post-abortion care- urban women

Name	Length of pregnancy (weeks)	Abortifacient/ abortion method	Provider type	injuries	Post abortion treatment	Post abortion contraceptive
Nafisa	12	'Muharubaini'/neem barks; sisal-looking plant	aunt	Incomplete abortion, Ulcers; temporary infecundity	Private clinic given medicine only	none
Asha	8	Shubiri	self	none	none	Condom/ calendar
Nadia	8	Shubiri	self	none	none	injection
Ebi	16	Metals	Clinical officer ('*mama*')	none	none	none
Linda	8	Fansidar Small pipe	Friend; Friend	none	none	none
Francie	16	Metals	Clinical officer	Incomplete abortion, Chronic abdominal pains; temporary infecundity	CPGH- MVA antibiotics, analgesics	none
Farida	16	'Muharubaini' + malaria tab; toxic tea; Long crotchet needle for knitting sweaters	Friend then later '*Mkunga*'/midwife	Temporary infecundity; cervical incompetence; pre-term delivery; obstructed labour	Private clinic- MVA, antibiotics, analgesics	none
Salma	8; 20	Shubiri; Solution from boiled razor blades > 'muharubaini' barks,	Friend; Friend	None; Cervical incompetence, Obstructed labour, uterine pains	none	None
Chao	8	catheter	'doctor'	Incomplete abortion	Private clinic- MVA	Norplant in public facility
Amina	8	Long crotchet needle for knitting sweaters; Solution from sisal-looking plant ('*vyaa*')	'doctor'; '*mganga wa kienyeji*'/local medicine-man	Incomplete abortion; chronic pain, weight loss	none	None; injection
Dora	8; 16	'muharubaini'; 'Shubiri'	Self; Mother	none	none	none
Saida	16	Toxic black tea, 'muharubaini', 'muharubaini' plus quinine, Long crotchet needle for	Friends, '*Mkunga*'	Incomplete abortion; chronic pain; irregular periods	Private clinic- MVA, antibiotics, analgesics	none

		knitting sweaters				
Dina	12	metals	Retired nurse Private doctor	no abortion; safe abortion	Not required	Injection after delivery
Tina	8	'Shubir', toxic tea, Long crotchet needle for knitting sweaters	Self, Retired 'doctor'	chronic pain, weight loss	none	abstinence
Rukia[b]	16	catheter	Private 'doctor'	Incomplete abortion	CPGH	injection
Riziki[b]	7	Fell while carrying water; Unknown medication	self	Incomplete abortion	CPGH	injection
Kadzo[b]	12	Seriously sick- malaria; qunine medication	self	Incomplete abortion	CPGH	injection
Kamene[b]	12	Seriously sick- stomach-ache, malaria; unknown drugs; clinic induced	Self, 'Doctor'	Incomplete abortion; septicaemia	Port-Reitz district hospital; CPGH	none

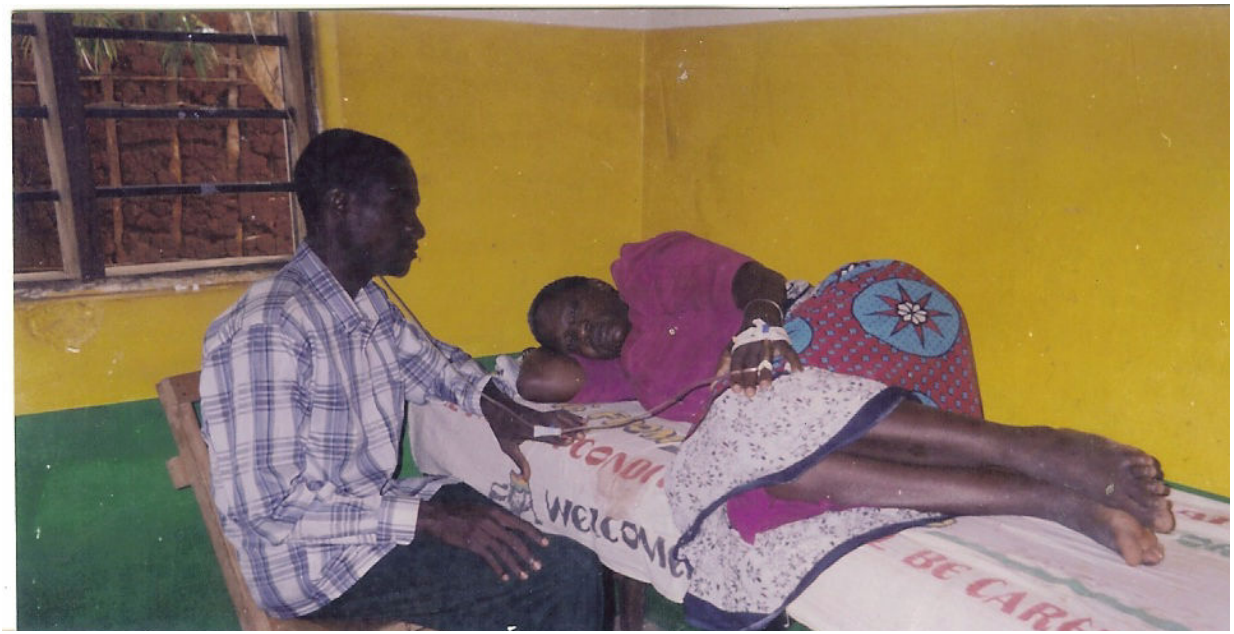
[a] Francie had 3 abortions in total but only the first one was unsafe and therefore of interest in this paper.
[b] Women interviewed at the CPGH with complications of unsafe abortion; all had post-abortion contraceptive counseling and 3 received injection method
[c] Riziki and Kadzo had each 2 abortions; the second one in each case was unsafe

Figure 4: Unsafe abortion methods, provider type, morbidities, and post-abortion care - rural women

Name	Length of pregnancy (weeks)	Abortifacient/ abortion method	Provider type	injuries	Post abortion treatment	Post-abortion contraceptive
Mercy[a]	12	Solution from roots, 24 pills, then later safe abortion	Self, friend at chemist, medical doctor	none	none	none
Rehema	unknown	Local clinic induced	'Doctor' (clinical officer)	none	none	Norplant
Anita	12	Local clinic induced	Clinical officer	none	none	none
Sandra	16	Metals, scissors	'doctor', nurse (boy's aunt)	none	none	abstinence
Fatma	16; 10	Herbal solution; Herbal solution and overdose of contraceptive pills	Mombasa herbalist; self	Incomplete abortion; incomplete abortion	1st abortion: Kilifi district hospital; 2nd abortion: self herbal treatment ('*dawa za shango*')	Stopped injection; stopped pills
Neema	8	Malaria drugs and other unknown drugs	self	Incomplete abortion	Private 'doctor' (Clinical officer) MVA	injection
Munira[a]	10	'shubiri', mkilifi, toxic tea, (later had safe abortion in private clinic)	Self; Private Clinical officer	None	none	pills
Zena	8	'shubiri', malaria tablets, abortion in local clinic	Self, private clinical officer	none	none	None yet
Pendo	12	Abortion in local clinic	Private 'Doctor' (Clinical officer)	infection	Private 'doctor' (clinical officer) IV fluids, antibiotics	None
Halima[b]	12	Wooden stick	Mortuary attendant	Incomplete abortion	Kilifi district hospital	None but uses injection erratically

[a] These two women initially attempted unsafe methods but failed to abort then resorted to safe abortion in private clinic.
[b] Halima had 4 abortions in total but only the first one reported here was unsafe.

Visual



Pendo 32 years is a rural housewife and Christian of primary level education. Seated next to the bed is her husband. They have four children and conceived a fifth pregnancy while on injection method but terminated at 12 weeks because the "*baby was still very young*".