



## The Prevalence and Knowledge of Emergency Contraceptive Pills (ECP's) among women in Kibera, Nairobi

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### SUMMARY

**Background:** Emergency contraception (EC) refers to the use of certain contraceptive methods by women and girls to prevent pregnancy after unprotected sexual intercourse. Many women who have a need for emergency contraception do not use it. Usually, women simply do not know that it exists or, if they know, they do not know where to get it or how or when to use it. Young and unmarried women constitute a high risk group for unsafe abortions. It has been estimated that widespread use of emergency contraception may significantly reduce the number of abortion-related morbidity and mortality. The Consortium for Emergency has set a goal of making emergency contraceptive pills a standard part of reproductive health care worldwide.

**Objectives:** The main objective of this study was to evaluate the prevalence, knowledge, attitudes and practises towards the uptake of emergency contraceptive pills by women in Kibera slum, Nairobi, Kenya

**Design:** A Cross-sectional survey was conducted in Kibera, Nairobi

**Method:** Multi stage sampling was used to determine the study population and 384 women were interviewed using a structured questionnaire. SPSS version 16 and STATA version 11 were used for statistical analyses.

**Results:** The results were that the mean age of the women was 26 years with a standard deviation of 7.4. Majority of the women were married (52%). More than half (58%) reported to use a method of contraception. The prevalence of emergency contraceptive pill was found to be (23%). The findings of this study show that knowledge of emergency contraceptive pills was high (74%) meaning many women have heard about it. The main source of information of Emergency Contraceptive Pills (ECPs) was from friends and family (34%).



However when it came to its usage, (37%) of the women thought that it would cause health problems if they used it, while (25%) were not familiar with the emergency contraceptive pill itself, hence were afraid of using it. The main reason for the women not using emergency contraceptives was because of misinformation (62%) followed by a lack of awareness (38%).

**Conclusion:** This study found the prevalence of ECP to be 23% and that knowledge on ECP was adequate with more than half the women reporting to have heard of ECP. However awareness does not lead to use of ECP's and the method is underused. The major constraint to ECP use was misinformation, with many women fearing that ECP might cause health problems or interfere with their fertility. Religion was also a constraint to ECP with only Protestants reporting its use.

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## **Introduction**

Emergency contraception (EC) is a contraception administered after unprotected intercourse to prevent pregnancy, also known as "post-coital contraception", and is less effective than regular contraception. Emergency Contraception is intended for occasional or emergency use only and not as a regular contraception and is associated with a failure rate of 0.2% to 3% [1]. There are various methods of emergency contraception. They include hormonal contraceptive pills (also called morning-after pills), intrauterine contraceptive devices and mifepristone. Emergency IUD insertion can be used up to five days after unprotected intercourse [2].

Situations of unprotected intercourse that demand the use of emergency contraception include failure of barrier methods such as slippage, breakage or misuse of condom, sexual assaults, failed coitus interruptus, two or more consecutive missed oral contraceptive pills, or simply because intercourse was unexpected and therefore contraception had not been used [3]. Although emergency contraception has been available in many countries for the last three decades, it remains

relatively unknown and underused in those countries [4].

The World Health Organization estimates that 84 million unwanted pregnancies occur annually worldwide [5]. On average, 46 million abortions take place every year, out of which 20 million are performed under unsafe conditions [5, 6]. Seventy thousand women die yearly as a consequence of unsafe abortion, while five million suffer permanent or temporary disability [5, 7]. Approximately 13% of pregnancy-related mortality worldwide is due to unsafe abortions and the majority of these deaths (and morbidity) occur in low-and-middle income countries [8].

Researchers have found that younger women consistently know more about the method than do older women, but their understanding is usually superficial [9]. Well-informed women may not use emergency contraception when they need it because they avoid thinking about the possibility of pregnancy. The tendency to overlook or underestimate the chance of becoming pregnant, particularly among younger women, can lead some women to gamble with the



possibility of pregnancy rather than to seek emergency contraception quickly [10].

Mistaken beliefs that emergency contraception will either cause abortion or harm health may discourage women from using it. Family Health International experts and others say emergency contraception does not terminate already established pregnancies and, thus, is not an abortifacient. The method prevents pregnancy in various ways: It can prevent or delay ovulation, the process by which the egg is released from the ovary. If taken after ovulation has occurred, it may prevent sperm from fertilizing the egg. It may also interfere with implantation of the egg in the uterus. Birth defects are no more common among babies born to women who accidentally took oral contraceptives after conceiving than among babies born to women who did not take these pills during pregnancy. An analysis of 12 studies conducted since 1969 showed no association between oral contraceptive pills and birth defects. Even use of high-dose oral contraceptives containing up to 150  $\mu\text{g}$  of estrogen per pill during pregnancy (a dose of emergency contraceptive pills contains 100  $\mu\text{g}$  of estrogen) was not associated with defects [11].

Routine use of emergency contraceptive pills, in place of regular contraception, is not recommended due to concerns other than safety. The pills are simply less effective than most other family planning methods. Many users also experience nausea. Only in rare cases do emergency contraceptive pills pose a health risk to the user taking them. Two studies found that short-term use of the combined hormonal regimen of emergency contraception did not increase risk of thromboembolism [12].

Emergency Contraceptive Pills are an important emergency contraceptive option for sexually active young people. Because of barriers surrounding the issue of youth sexuality and the confusion between ECPs and abortion, ECPs are underutilized. When ECPs are made available and accessible to youth, they are well accepted. They help reduce the incidence of unplanned pregnancies and abortions, especially with proper counselling. They can also help youth realize the significance of contraception and lead them to use a more reliable method on an on-going basis [13].

### **Materials and Methods**

The study was conducted in Kibera, a slum which is situated approximately 5 km south west of the city centre of Nairobi. Kibera is composed of thirteen main villages each varying in size, population density, topography, culture, ethnicity and religious makeup. Its population is 170,070. Kibera lacks basic infrastructure and services provided by the government, including water, electricity, health services, sanitation, and public schools [14]

A cross sectional study was undertaken in which a sampled population was interviewed using a structured questionnaire. The study population comprised of women of reproductive age (15–49) years residing in Kibera slum.

Multistage sampling was conducted. Kibera has thirteen villages. Randomly five villages were selected from the ten assuming there are no major differences in-between the villages, in terms of socio demographic characteristics. These villages were Lindi (15,613), Laini Saba (12,494), Gatwekera (11,411), Makina (12,277) and Silanga (7,165), (2009 Kenya Census



report). From chosen villages, the required number of women was sampled using probability proportion to size (PPS) after estimating the proportion of eligible women for each village. Therefore the number of women sampled per village was Lindi (102), Laini Saba (81), Silanga (47), Gatwikira (45) and Makina (80).

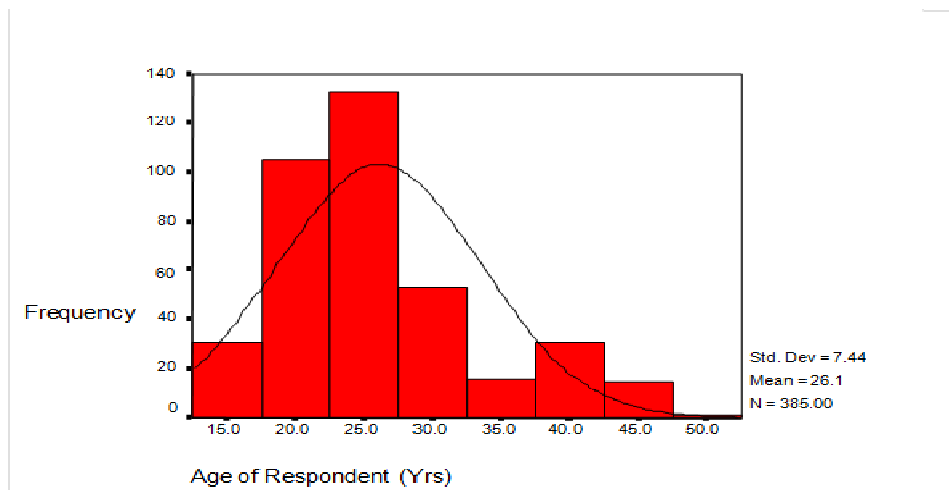
A central location within the village was selected. A bottle was placed in the center and spun and when it finally came to a halt, that direction was followed and every fifth household selected until the desired sample size was achieved. If the end of the direction chosen was reached without attaining the required sample size, the exercise was repeated by going back to the central location and spinning the bottle to select a different location. In each selected household, an

eligible woman was interviewed. In cases where a household has several eligible women, a maximum of two were considered. The two were selected by writing on pieces of paper two "Yes" and the rest "no". They were folded and those picking papers with "yes" included. For households with two eligible women, both were included.

Questionnaire data was entered into a Microsoft access database. Independent double data entry was carried out with a third party to act as a referee for validation. Analysis was done using SPSS version 16 (Predictive Analysis Software). Chi-square tests were used to determine whether emergency contraceptives use differed significantly by socio-demographic characteristics. STATA version 11 was also used for Linear (Tobit) regression.

## Results

**Figure 1:** Age distribution of respondents



The age of the women interviewed ranged between 15–49 years and the mean age was 26 years  $\pm$ 7.44 years. This is shown in figure 1.

One hundred and thirty nine (36%) of the women were single, two hundred (52%) were married, twenty three (6%) were widowed and separated. Majority of the women (46%) were Protestant, (32%) Catholic while



(20%) were Muslim. One hundred and fifty four (40%) of the women had primary level education, one hundred and thirty nine (36%) secondary education. Among those with Post-secondary education 31 (8%) had university level education. Sixty two (16%) of the

women had no formal education whatsoever. The main occupation of the women was self-employment with (46%). The rest were housewives, students and employed in that order. This is shown in table 1 below.

**Table 1:** Distribution of respondents by selected socio-demographic characteristics of study population

n=385

Characteristics	Frequency	%
<b>Marital status</b>		
Single	139	36
Married	200	52
Separated	23	6
Widowed	23	6
<b>Religious denomination</b>		
Catholic	123	32
Muslim	77	20
Protestant	177	46
<b>Level of education</b>		
None	62	16
Primary	154	40
Secondary	139	36
University/college	31	8
<b>Occupation</b>		
Self employed	177	46
Employed	31	8
Housewife	116	30
Student	54	14

**Table 2:** Prevalence of contraceptive use among women of reproductive age in Kibera

n=223

Method of Contraception	Frequency	Percent
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Condoms	69	31
Emergency Contraceptive pill	52	23
Daily pill	42	18
Injection	21	9
IUD	13	6
Female sterilization	13	6
Withdrawal	13	6
Total	223	100

The prevalence of contraceptive use is shown in table 2 above. Overall cumulative contraceptive prevalence was 58%. Of those who used a method of contraception, Sixty nine (31%) of the women used

condoms, fifty two (23%) used ECP's and (18%) used daily pills. The rest used Injections, IUD's, female sterilization and withdrawal in that order respectively.

**Table 3:** Sources of information for ECP's among women of reproductive age in Kibera

n=285

Source of ECP information	Frequency	Percent
Friends/Family	97	34
Clinic in slum	42	14
Women support group	39	13
News/magazines	31	11
Chemist	23	8
Community Health Worker	23	8
Seminar	15	5
Not sure	8	3
School/college	8	3
Total	285	100

Majority of the women two hundred and eighty five (74%) had heard of ECP while ninety two (24%) had not. In regard to the source of information two hundred and eight (54%) of the women first heard about ECP from informal networks of friends and family, one

hundred and eight (28%) from Clinic in the slum and thirty nine (10%) from Women support groups. The rest were news/magazines, chemist, community health worker, seminar workshops, school/college and not sure in that order respectively.

**Table 4:** Knowledge of recommended timing of ECP

n=285

	Frequency	Percent
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Recommended timing of ECP		
Immediately afterwards	41	12
Within 24 hours	49	17
Within 72 hours	143	50
Not sure	52	18
Total	285	100

The time window of the effectiveness of ECP (up to 72 hour after unprotected intercourse) was identified by

50 % of the women with 18% responding with 'don't know'.

**Table 5:** Attitudes and practises towards ECP among women of reproductive age in Kibera

n=385

Concern for not using ECP	Frequency	Percent
Not familiar	100	25
Cause health problems	146	37
Harm baby	15	4
Women Barren	69	18
Women get STD's/HIV	55	14
Why ECP use is low		
Lack of awareness	150	38
Misinformation	235	62

The attitudes of the women towards ECP are highlighted in the table above. The most important reason for not using ECP among the women was that it would cause health problems, one hundred and forty six (37%) reported this. One hundred (25%) said that the method was unfamiliar to them followed by unable to have children (18%). Getting more STD including

HIV came fourth with fifty five (14%) and harming the baby being the least concern (4%).The main reason for the women not using ECP was because of misinformation, two hundred and thirty five (62%) reported this followed by a lack of awareness, one hundred and fifty (38%).

**Table 6:** Relation between use of contraceptions and social/economic/demographic factors

	Social-Economic & Demographic Factors	Pearson chi square



Use of ECP	Age of Respondent (Yrs)	0.875
	Marital Status	0.000
	Religion affiliation	0.001
	Highest Level of Education	0.000
	Occupation	0.042

Chi square statistics showed that there was no significant correlation between emergency contraceptive use and age ( $P=0.875$ ). However there was strong correlation between emergency contraceptive use with marital status ( $P=0.0000$ ), religious affiliation ( $P=0.001$ ), education ( $P=0.000$ ) and occupation ( $P=0.042$ )

### Discussion

This study aimed at examining the prevalence, Knowledge attitude and practices of ECP among women in Kibera which is an important strategy in determining the gap in knowledge and its relationship with attitudes and practices. A total of 385 correctly completed questionnaires were analyzed giving a response rate of 100%.

Majority of the women in this study have used a method of contraception (58%) while (42%) have not. This is higher than the overall contraceptive prevalence of (14.5%) found in Makerere University students and (23.5%) found among women in Kakuma refugee camp [15]. The study results also revealed that of the women who use a method of contraception 31% use condoms, 23% Emergency contraceptive pills, 18% daily pills, 9% injection and 6% use IUD, withdrawal and female sterilization. This is in contrast to the Makerere University study, where the most common contraceptives used were condoms (49.8%) and withdrawal (23.4%) [16].

The knowledge of emergency contraception pill was generally high in this population (74%). This level of awareness was generally higher than that found among university students in Kenya (39%) [17], and also higher than that in Kakuma refugee camp (15%) [15]. Of the women who reported to use ECP's, twenty (38%) reported to use it once a month, ten (19%) reported to use it every 3 months, once a year and once every six months while only two (4%) used it after every sexual encounter.

The important source of ECP information was from informal networks of friends and Family (34%) followed by clinics in the slum (14%) and Women support groups (13%). This is in agreement to a study done among university students in Cameroon where the important source of ECP information was family and friends [16]

The women who were against ECP cited fear of possible interference with health as their reasons for disapproval and lack of use (37%), fertility was also a concern among the women (18%). Similar reasons have been cited by other authors [17, 18] for not using ECP's. More than half of the women (56%) said that their men (spouses) would object to them using emergency contraception. Such reasons have been cited as why sexually active women avoid contraception and prefer to opt for abortion when the need arises [19].





Contrary to general belief that ECP encourages promiscuity, studies have shown that emergency contraception does not encourage women to engage in sex indiscriminately [20, 21]. Misinformation was the main reason why ECP use is low (58%) followed by a lack of awareness (42%) and is consistent with other investigators [22]. Therefore despite the women having sufficient knowledge on the existence of ECP, there is a lack of awareness about its use among women as 37% of the women confused ECP with causing health problems. One explanation to this may be the fact that ECP is taken after intercourse. This is a misconception that may lead to negative attitudes towards an easy access to the method.

In addition, there was no significant correlation between emergency contraceptive use and age. However majority of the women in the (25–34) age group were the highest users followed by women in the (15–24) age group, women above 45 were the least. This is also consistent with other findings [22] where the teenage and middle aged group had used ECP more frequently than the older age group.

The results revealed also that education has a significant effect on ECP use. As level of education increases, ECP use decreases. Women with no education were ten times more likely to use ECP than women with university education. Other studies have shown that educated women may also have a greater incentive to obtain information on strategies to delay childbearing, and thus seek out information for themselves about other options of contraceptives [23, 24]

Occupation was found to be a predictor of ECP use. Self-employed women were twice as likely to use ECP compared to housewives.

Religion was also a significant predictor of ECP use. Catholics and Muslims reported no use of ECP. Of those who reported to use ECP all were protestant. This finding is similar to a study conducted among University students in Ethiopia where higher knowledge and favorable attitudes towards ECP were observed among Orthodox Christians than respondents in other categories [25].

### **Conclusion**

This study found the overall cumulative contraceptive prevalence to be 58%. Of those who reported to use a contraceptive method, 23% used ECP's. Knowledge on ECP was adequate with more than half the women reporting to have heard of ECP. The most common source of information was family and friends. However awareness does not lead to use of ECP's and the method is underused.

The major constraint to ECP use was misinformation, with many women fearing that ECP might cause health problems or interfere with their fertility. This could be attributed to the informal network source of gathering information regarding ECP. Fertility is an important issue in society and therefore is an important point to address. Religion was also a constraint to ECP use. We find that only Protestants reported to use it and none of the Catholics or Muslims did. This could be due to religious taboos or different teaching taught in the different sects.

The acceptance of ECP as an established and safe method for preventing unintended pregnancies after



intercourse seems to be a process that must occur over time among users towards a more pragmatic and tolerant attitude.

### **Recommendations**

In order to increase awareness and reduce the level of misinformation of ECP's, health managers and administrators should devise ways of strengthening the capacity of health facilities to provide essential reproductive health services by addressing the reasons given by the women that cause low usage of ECP.

There is a need to educate the women about emergency contraceptive pills. This can be done by proper dissemination of reliable information on its advantages, safety and efficacy by extensive advertising campaign through road shows, radio programs, health educators and printed media.

Making access to emergency contraception easier, such as providing emergency contraception through hospitals, chemists and private clinics where women are comfortable seeking health care services and products. This would help many women to avoid the trauma of an unplanned pregnancy and perhaps a subsequent illegal abortion.

There are many ethical issues pertaining to EC use. Some argue that it may increase promiscuity but on the flip side if women were empowered with ECP knowledge, it may lead to a decrease in the number of unsafe abortions and maternal morbidity. This will in turn control birth rates.

All stakeholders including health care providers, non-governmental organizations and private sector should be committed to improving the quality of reproductive health services. The acceptance of ECP as an

established and safe method for preventing unintended pregnancies after intercourse seems to be a process that must occur over time among users and health care providers.

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