

*Full Length Research Paper*

# Factors Influencing Contraceptive Uptake Among Women With Induced Abortion Presenting At Kath, Kumasi-Ghana

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Induced Abortion which constitutes 10% of maternal mortality in Ghana presents a serious health problem particularly among women presenting at KATH. To accelerate progress towards achieving MDG 5 there must be substantial reduction in induced abortion alongside an increased contraceptive uptake, PAC. Cross-sectional study design was used to assess factors influencing contraceptive uptake among women within the age range of 15-49 years presenting with abortion in KATH from June to August. Systematic sampling technique was used to select 420 samples for the study ensuring that attributes being studied were randomly distributed. The data gathered through telephone conversation (follow-up interview) for almost 3 months were analysed using SPSS version 16. Majority, 252 (60%) of women who had induced abortion were younger than 30, single, unemployed with low education and socio-economic status. Out of this 60%, only 21.4% used contraceptive after the induced abortion, only 10.3% were married in addition to 35.3% cohabiting with their partners depicting high unmet FP needs among respondents since a large number of women wished to postpone or desired to delay childbearing for economic reasons. Thus, majority, 339 (80.7%) of the respondents had the desire to use contraceptives. Barriers to contraceptive use were a result of gender inequality, economical factors, social prescripts and poor service delivery. The output, unintended pregnancies ended in induced abortions. Contraception is an essential element of PAC. The desire to delay, space and end childbirth are reasons giving for having an induced abortion suggesting unmet need for FP. There is the need to match findings from contraceptive and induced abortion studies to develop strategies to address both.

**Keywords:** Contraception, Induced abortion, pregnancy, maternal mortality in Ghana

## INTRODUCTION

Promoting post-abortion contraceptive uptake is a key intervention for improving the health of all women and children. Contraceptive uptake plays an important role in reducing fertility. Contraceptive use, however, is the consequence of contraceptive acceptance, method choice, continuation, switching and failure. The use of contraceptive methods to prevent unintended pregnancies is one of the most effective strategies to reducing induced abortion rates, maternal morbidity and mortality. Thus, the provision of post-abortion family planning services that include counselling with easy access to

contraceptive methods are suitable to determine the acceptance and selection of contraceptive methods by women who have had induced abortion.

According to WHO and Guttmacher, some 35 million induced abortions occur in developing countries each year. Approximately 20 million of these are unsafe abortions, which claim the lives of 67,000 women as a result of related complications. These deaths represent 13% of all pregnancy-related mortality, and in some countries as much as 25% of maternal deaths. In developing countries, one of every 75 women die of pregnancy or

childbirth-related causes, compared to one of every 7,300 women in developed countries.

If contraception were accessible and used consistently and correctly by women wanting to avoid pregnancy, maternal deaths would decline by an estimated 25–35%. Fifty-five million unintended pregnancies in developing countries occur every year to women not using a contraceptive method. Another 25 million occur as a consequence of incorrect or inconsistent use of a contraceptive method and method failure (Bongaarts J and Westoff CF, 2008).

These statistics provide firm evidence that family planning reduces abortion, thus decreasing the risk of maternal death. In addition, over the last two decades, there has been increasing evidence that family planning interventions have a role to play not only before a woman has become pregnant, but after she has had an abortion or miscarriage.

In 1994, the international health community identified Post-abortion Care (PAC) as an important strategy to reduce maternal mortality by treating complications related to unsafe abortion and miscarriage, and by providing post-abortion family planning counselling and services to prevent repeat unplanned pregnancies and abortions. Although post-abortion family planning counselling and service delivery is part of all post-abortion care models, PAC services have historically sought to reduce maternal mortality by treating the symptoms of haemorrhage and sepsis rather than by treating women's unmet need for family planning thus overlooking the potential of Post-abortion care to interrupt the cycle of repeat unplanned pregnancy, abortion and complications leading to maternal death.

For many post-abortion patients, the lack of family planning counselling and services quickly leads to another induced abortion, because fertility returns within four to six weeks after miscarriage or induced abortion. This makes it essential to ensure that Post-abortion family planning counseling and service delivery are offered to all women who present for emergency obstetric or Post-abortion care, regardless of the method of treatment (sharp curettage, electric or manual evacuation) or place of treatment (operating theatre or PAC treatment room) as well as to all postpartum women (Guttmacher Institute, March 2010).

Many factors contribute to the gap between access to, and use of, contraceptive methods or services. These include logistic, social and behavioural barriers to meeting the contraceptive needs and wishes of individuals and couples, as well as obstacles that stem from the way the services are organised. Successful delivery of family planning services requires proper coordination of activities that are involved at the various steps of the service

delivery chain: counselling, provision of a wide choice of contraceptives, follow-up and appropriate referral, supervision, monitoring and evaluation and a functional logistics system.

Counselling is an important prerequisite for the initiation and continuation of a family planning method. The attitude, behaviour and competency of the service providers could determine whether a client would accept and use contraceptive method or not. Family planning is also an important component of reproductive health thus; quality family planning is recognised as a human right. All individuals have the right to access, choice and the benefits of scientific progress in the selection of family planning methods. A rights-based approach to the provision of contraceptives assumes a holistic view, which includes taking into account clients' sexual, and reproductive health care needs and considering all appropriate eligibility criteria and practice recommendations in helping clients choose and use a family planning method.

The concept of the right to contraceptive choice, as an essential component of reproductive and sexual rights, has been endorsed by several landmark global consensus documents and international institutions: thus, there should be no incentives or coercion to adopt family planning or any particular method of contraception; contraceptive uptake results from proper understanding of issues at stake and free choice. Contraceptives should be provided to clients in accordance with the approved method-specific guidelines and by providers who have been trained in provision of that method.

Maternal mortality reduction has been a focus of major international initiatives for the past two decades. Widespread provision of Emergency Obstetric Care (EmOC) has been shown to be an important strategy for addressing many of the complications that might otherwise lead to maternal death. However, unsafe abortion is one of the major causes of pregnancy-related deaths and will be only partially addressed by EmOC.

Safe Abortion Care (SAC) is comprised of three elements that will contribute to reductions in maternal mortality:

**i. Safe induced abortion for all legal indications**

In countries with ready access to safe, legal abortion, complications and deaths from unsafe abortion are reduced drastically. Romania offers a well-known example of this transformation: when the country's abortion law was liberalised in 1989 to allow women to secure safe abortion procedures, maternal mortality fell by 65% in the next three years, a decline primarily attributable to the decrease in abortion-related deaths. Similar findings

have been reported for South Africa.

## ii. Treatment of abortion complications

Offering safe, accessible treatment of abortion-related complications means that fewer women will suffer or die as a result of those complications.

## iii. Provision of post-abortion contraception

Improved access to post-abortion contraception is one avenue to reduce the risk of repeat unintended pregnancies and unsafe abortion. Thus, a woman who has had induced abortion and has been counselled on contraceptive use, is supposed to be on contraceptive to avoid unwanted pregnancies. Once a woman has adopted a contraceptive method, she will ideally continue to use it or switch to and continue using another method for as long as she wishes to avert pregnancy. Helping women to continue contraception safely and effectively is desirable both from an ethical and public health perspective. Improving contraceptive uptake among women with induced abortion does not only help women achieve their reproductive intentions, but it reduces unintended pregnancies, as well as related abortions, maternal mortality and morbidity.

Yet, contraceptive uptake can be tenuous. Many factors can lead a woman to abandon her means of preventing unintended pregnancy. These factors reflect needs and preferences unique to the individual woman; her relationship with her partner, friends, and extended family; her experience with health services; her community, society, and culture; policy and service delivery environment; political, societal, and economic conditions, and characteristics unique to a particular method.

Unintended pregnancy is both a fundamental notion underlying the rationale for contraception and a measure of a fundamental public health need in today's world. In developing countries, the risks of death following complications of unsafe abortion procedures is several hundred times higher than that of an abortion performed professionally under safe conditions. Complications resulting from unsafe abortion contribute to serious other health problems for women health such as infertility and pelvic inflammatory disease and chronic pelvic pain.

Since no contraception is 100 per cent effective in preventing all pregnancies, there will be unwanted pregnancies which women may seek to end by induced abortion. In almost all countries, the law permits abortion to save the woman's life and in most countries abortion is allowed to preserve the physical and mental health of the woman. Safe abortion services as provided by law therefore need to be available; well-trained health personnel supported by policies, regulations and a health

system infrastructure, including equipment and supplies, so that women can have rapid access to these services.

Abortion is the termination of a pregnancy by the removal or expulsion from the uterus of a foetus or embryo resulting in or caused by its death before viability. Viability (gestation at which extra-uterine life is deemed possible) vary from country to country. In many states in the USA or the UK, viability is 22 to 24 weeks. In Ghana, it is placed at 28 weeks. An abortion can occur spontaneously due to complications during pregnancy or can be induced in humans and other species. In the context of human pregnancies an abortion induced to preserve the health of the gravida (pregnant female) is termed as therapeutic abortion, while an abortion induced for any other reason is termed an elective abortion. The term abortion most commonly refers to the induced abortion of a human pregnancy, while spontaneous abortions are usually termed as miscarriages (Source: Wikipedia).

Addressing the problem of induced abortion in Ghana should significantly contribute to the achievement of Millennium Development Goal 5 on Improving Maternal Health, considering that unsafe abortion is one of the major factors behind the high maternal mortality rates in the country. More than 1 in 10 maternal deaths (11%) (Sedgh G, 2010: Alan Guttmacher Institute) in Ghana is the result of induced abortions. Also, a substantial proportion of women who survive an unsafe abortion experience complications from the procedure.

## DEFINITION OF TERMS

**Abortion:** The expulsion or extraction of the products of conception from the Uterus before the embryo or foetus is capable of independent life.

**Abstinence:** Refraining from sexual intercourse.

**Contraceptive uptake:** Contraceptive acceptance and use

**Conception:** Conception is usually equated with the fertilization of the ovum by the sperm, but is sometimes equated with the implantation of the fertilized ovum in the uterine lining.

**Contraception:** As a means of logical progression, contraception is necessarily anything that acts against conception, and therefore, anything that prevents the success of fertilization or implantation.

**Incomplete abortion:** Occurs when some products of conception, usually the placenta, remain inside the uterus.

**Induction:** Deliberate termination of pregnancy before the viability of the fetus.

**Missed abortion:** Is when the foetus has died in uterus and some or all of the nonliving products of conception remain in the uterus.

**Side effect:** An effect of a drug other than the one it was administered to evoke.

**Spontaneous abortions:** Are commonly called miscarriages. Induced abortions are voluntary interruptions of pregnancy or therapeutic abortions.

**Self-induced Abortion:** Self-induced miscarriage is an abortion performed by the pregnant woman herself, outside the recognised medical system.

**The measure of need:** Percentage of currently married women aged 15-49 who want to stop having children or to postpone the next pregnancy for at least two years, but who are not using contraception.

**Unintended pregnancy:** One that was not wanted at the time conception occurred, irrespective of whether contraception was being used.

**Women in fertile age:** Females of childbearing age, typically defined between (**WIF**) ages 15 and 44 or between ages 15 and 49

## Contraception

Birth control is an umbrella term for several techniques and methods used to prevent fertilization or to interrupt pregnancy at various stages. Birth control techniques and methods include contraception (the prevention of fertilization) and abortion (the removal or expulsion of a foetus or embryo from the uterus). Contraception includes: (1) barrier methods, such as condoms or diaphragm, (2) hormonal contraception including oral contraceptive pills, injectable contraceptives and implants.

**Barrier methods**, as the name suggests, create a barrier that prevents the sperm from gaining access to the upper reproductive tract, thus preventing it from meeting the egg. The common ones are condoms, spermicidal, diaphragm and cervical cap. Whereas condoms, diaphragm and cervical cap are mechanical barriers spermicidal create a chemical barrier: that interferes with movement of the sperm and its ability to fertilise the egg. The effectiveness of barrier methods is largely dependent on the way they are used. For example, condoms are only moderately effective with a typical-use (pregnancy rate about 14%), but much more effective when used consistently and correctly (3% pregnancy rate). Barrier methods (condoms) help prevent both pregnancy and some STIs including HIV. Another advantage of barrier methods is that, with the exception of the male condom, all the others are woman-controlled methods that almost every woman can use. Unlike latex runner, there is no known allergy to polyurethane, the material used to make female condoms.

**Hormonal methods:** These are methods containing synthetic hormones (oestrogen, progestin, or a combination of both hormones), which primarily work through prevention of ovulation or by making the cervical mucus too thick for sperm penetration. They

are very effective contraceptive methods but vary in terms of side effects associated with their use. Oestrogen-containing methods are not advisable in women who are breastfeeding because they can suppress lactation.

On the other hand, progestin-only methods do not suppress lactation and are ideal for breastfeeding mothers. However, it is generally recommended that initiation of progestin-only contraceptives be delayed up to 6 weeks postpartum, because there is inadequate knowledge on the effects of these hormones, which are secreted in breast milk, on the children.

**Voluntary surgical contraception (VSC):** Surgical sterilization is available in the form of tubal ligation for women and vasectomy for men. Although sterilization is considered a permanent procedure due to the uncertainty of reversal possibility, it is possible to attempt a tubal reversal to reconnect the fallopian tubes in females or a vasectomy reversal to reconnect the vasa deferentia in males. The rate of success depends on the type of sterilization that was originally performed and damage done to the tubes as well as the patient's age.

**Lactational amenorrhoea (LAM):** The LAM is a temporary method of family planning based on the lack of ovulation resulting from exclusive breastfeeding. It is used during the first 6 months **postpartum only** when fertility is low and the infant is fed solely on breast milk. LAM is an effective method– the pregnancy rate is about 2% for typical use in the first 6 months. When used correctly (all LAM criteria are met), the pregnancy rate is 0.5%.

## Others methods include:

**Behavioural methods (withdrawal):** Behavioural methods involve regulating the timing or methods of intercourse to prevent the introduction of sperm into the female reproductive tract, either altogether or when an egg may be present.

**Fertility awareness:** Symptoms-based methods of fertility awareness involve a woman's observation and charting of her body's fertility signs, to determine the fertile and infertile phases of her cycle. Charting may be done by hand or with the assistance of fertility monitors. Most methods track one or more of the three primary fertility signs: changes in basal body temperature, in cervical mucus and in cervical position.

**Calendar-based methods** such as the rhythm method and Standard Days Method estimate the likelihood of fertility based on the length of past menstrual cycles. To avoid pregnancy with fertility awareness, unprotected sex is restricted to the least fertile period. During the most fertile period, barrier methods may be availed, or she may abstain from

intercourse.

The term **natural family planning (NFP)** is sometimes used to refer to any use of fertility awareness methods. However, this term specifically refers to the practices that are permitted by the Roman Catholic Church — breastfeeding infertility for example. FA methods may be used by NFP users to identify these fertile times.

**Coitus interruptus** (literally "interrupted sexual intercourse"), also known as the withdrawal or pull-out method, is the practice of ending sexual intercourse ("pulling out") before ejaculation. The main risk of coitus interruptus is that the man may not perform the maneuver correctly, or may not perform the maneuver in a timely manner. Although concern has been raised about the risk of pregnancy from sperm in pre-ejaculate, several small studies have failed to find any viable sperm in the fluid (WHO Statistical Information System, WHOSIS).

**Total abstinence:** Different groups define the term sexual abstinence in different ways. When used in discussions of birth control, usually the avoidance of all sexual activity total sexual abstinence is the intended meaning. Sometimes people choose to be sexually abstinent to eliminate their risk of pregnancy, and abstinence may be included in lists of birth control methods. Those who are sexually abstinent do not have unplanned pregnancies. Other sources instead classify abstinence as not being a form of birth control.

**Abstinence** is 100% effective in preventing pregnancy; however, not everyone who intends to be abstinent refrains from all sexual activity and in many populations there is a significant risk of pregnancy from nonconsensual sex. As a public health measure, it is estimated that the protection provided by abstinence may be similar to that of condoms. Some authorities recommend that those using abstinence as a primary method have backup method(s) available (such as condoms or emergency contraceptive pills).

**Abortion:** Surgical abortion methods include suction-aspiration abortion (used in the first trimester) or dilation and evacuation (used in the second trimester). Medical abortion methods involve the use of medication that is swallowed or inserted vaginally to induce abortion. Medical abortion can be used if the length of gestation has not exceeded 8 weeks.

Induced abortions occur worldwide. Some studies suggest that it is fast becoming a birth control method. Most induced abortions occur as a result of unintended pregnancies. Estimates suggest that 79 million unintended pregnancies occur worldwide and of these 46 million are aborted. The stigma associated with induced abortions in developing nations coupled with laws that render abortions legal only under certain conditions results in the practice

of clandestine, unsafe abortions even when legal and safe services are available.

## Background Information

In Africa alone an estimated 3.7 million unsafe abortions are performed annually and approximately 23,000 deaths result from these procedures in a year (Adebyseoye, Singh and Audam 2007).

While working to reduce reliance on abortion by providing women with knowledge about and access to contraception in Ghana, where abortion is allowed under certain restrictions, Pathfinder works to ensure that all abortions are performed safely in a sterile and risk free environment by providers trained in modern methods.

In 2006, Pathfinder initiated a project to introduce comprehensive abortion care services into select facilities in Ghana, particularly in the Northern Region of the country. The project has five components, each of which plays an important role in achieving the goal of decreasing maternal mortality. The project aims to:

- ✚ Provide a safe place where pregnant women can discuss their options;
- ✚ Give life-saving medical care to women suffering the complications of unsafe abortion;
- ✚ Provide contraceptive methods to avert further unintended pregnancies;
- ✚ Create community awareness of the problem of unsafe abortion and reducing stigma; and
- ✚ Provide safe, elective abortion procedures when necessary.

Cases of unsafe abortion are common in KATH (The study area) in the Ashanti Region of Ghana. Report from KATH records revealed the rate is similar to other parts of the developing world despite the education in family planning and other health education given to people. Therefore, it is important to study the possible factors influencing contraceptive uptake among women with induced abortion coming to KATH.

## Current State of Knowledge

Induced abortion remains pervasive and damaging condition in the low-income and middle-income countries where mostly abortion is illegal. According to a global study collaboratively conducted by the World Health Organization and the Guttmacher Institute, most unsafe abortions occur where abortion is illegal and induced abortion is a significant cause of maternal mortality and morbidity in the world.

Provision of post-abortion contraception use has been lukewarm in many developing countries and an

appraisal of the patients and factors that might influence contraceptive uptake would be worthwhile to reduce the incidence of induced abortion.

Although addressing law liberation and health services inequity would result in substantial reduction in induced abortion, a major improvement in post-abortion care (PAC) services through the provision of emergency contraception, as well as universal sex education at schools would influence Ghana's abortion rate to a much greater extent than the liberal nature of its law alone which most people are not aware of. On the other hand, restrictive laws or lack of access to professional care do not stop women from seeking abortion; only the outcome of the procedure is influenced by such obstacles. If safe services are not available, women resort to clandestine abortion, thus exposing themselves to a high risk of morbidity and mortality.

Although the term can include abortions induced through legal, over-the-counter medication, it also refers to efforts to terminate a pregnancy through alternative, often more dangerous means. Such practices are illegal in most jurisdictions even where abortion itself is legal and may present a grave threat to the life of a woman. Prevalence of induced abortion has been quoted as ranging from 25-55% among adolescents in schools and 88-94% among out of school single women (UN, 2008; Emuveyan and Agbogboroma, 1997). Strategies for reducing the high incidence of induced abortion include health education and the provision of post-abortion contraception through counselling (a vital element) moving post-abortion services from being purely curative to being preventive.

In Ghana unsafe abortion remains a major public health problem despite apparent liberalisation of the law on abortion over two decades. The contention is that the current law on abortion makes enforceability difficult and leaves room for untrained personnel to engage in dangerous abortion procedures and that there is a need for law reform (Morhe R.A.S. and E.S.K. Morhe, 2006).

Though abortion is legal in Ghana, women still obtain unsafe abortions (The Alan Guttmacher Institute, 1999) due to lack of knowledge at the provider and population levels. Most women, especially in the developing world have misconception together with other factors that influence the use of contraception which makes post-abortion care deficient and calls for the need to be incorporated into practice for Ghana to attain the MDG 5.

### **Statement of the problem**

Unsafe Abortion presents a serious health problem in Ghana. Although numerous efforts have been

made to reduce the rate of induced abortion in the country as in many other African countries, achievements have been minimal. It is one of the causes of maternal mortality in Ghana. The purpose of this study is to assess the influence of contextual and individual factors on women with induced abortion for the uptake of contraception. It is therefore important to explore issues related to acceptability, availability and accessibility of contraceptive methods to clients and the service related factors on the uptake of contraception among women with induced abortion presenting at KATH.

Many pregnant women presenting at KATH with complications of unsafe abortion might have resorted to the methods leading to induced abortion which may include using misoprostol orally or vaginally and using substances like herbs, broken bottle inserted into the vagina or cervix with the aim of aborting the pregnancy.

Complications such as perforation of the uterus requiring surgical removal of the uterus (Hysterectomy), infertility is very often the result of the method used to induce the abortion. Unfortunately some women die soon after arrival to the hospital, or on their way to the hospital.

The high rate of death as a result of this practice is a major concern to health planners, health care providers, family members, religious leaders and the nation at large. Nevertheless, the main causes of the high incidence of these induced abortions in relation with contraceptive use are not known. It is this view that this research is being conducted to assess the factors influencing contraceptive uptake among women with induced abortion presenting at KATH, Kumasi.

### **Justification for the study**

The study seeks to identify the factors: the acceptability, availability, accessibility of conceptive methods to clients and the service related factors on contraceptive uptake among women with induced abortion presenting at KATH. It also seeks to assess demographic characteristics of those who practice abortion, identify their reproductive history, socio-cultural norms; compare proportion of women's contraceptive uptake before and after induced abortion and their level of knowledge about health concerns such as side effects of contraceptive methods. Therefore, providing post-abortion family planning services that include structured contraceptive counselling with free and easy access to contraceptive methods can be suitable.

Government and health personnel of most African countries continue to debate on how to make services and for that matter, maternal health

services more accessible for all categories of women. In Ghana, maternal mortality rates are very high, 340 per 100,000 live births. This research is therefore, aimed at assessing factors influencing contraceptive uptake and projecting how best these factors will be dealt with to ensure high contraceptive uptake among women with induced abortion presenting at KATH.

This project does not only assess factors influencing contraceptive uptake but also seeks to educate women on health issues related to induced abortions, PAC services and the right or proper information on contraceptives uptake to prevent further unintended pregnancy.

### Research question

Do other factors besides counselling predict contraceptive uptake among women with induced abortion?

### Objectives

#### General Objectives

To assess factors influencing contraceptive uptake among women with induced abortion presenting at KATH from June and August, 2012.

#### Specific objectives

- To assess the demographic characteristics among women with abortion presenting at KATH
- To investigate the reasons associated with use or non-use of contraceptives among women with induced abortion
- To assess availability of FP services influence on post-abortion contraceptive uptake at KATH
- To estimate the degree of unmet need (current unintended pregnancy due to nonuse) of FP among women with induced abortion presenting at KATH

### Significance of the Study

The study is expected to help provide information on contraceptive uptake among women with induced abortion, help medical personnel such as doctors, nurses, pharmacists and other paramedical staff in the study area to carry out effective health education against induced abortions and promote contraceptive uptake.

This study will go a long way to inform and educate women on the dangers involved in induced abortion when it is published. Also for academic

purposes, the study will be useful to future researchers as a reference in similar studies.

Recommendations made in this study, will be useful for health planners to help control health events (complications or deaths) and promote maternal health.

### Hypothesis/conceptual framework

#### Hypothesis

A woman who has had induced abortion and has been counselled on contraceptive use will use contraceptive.

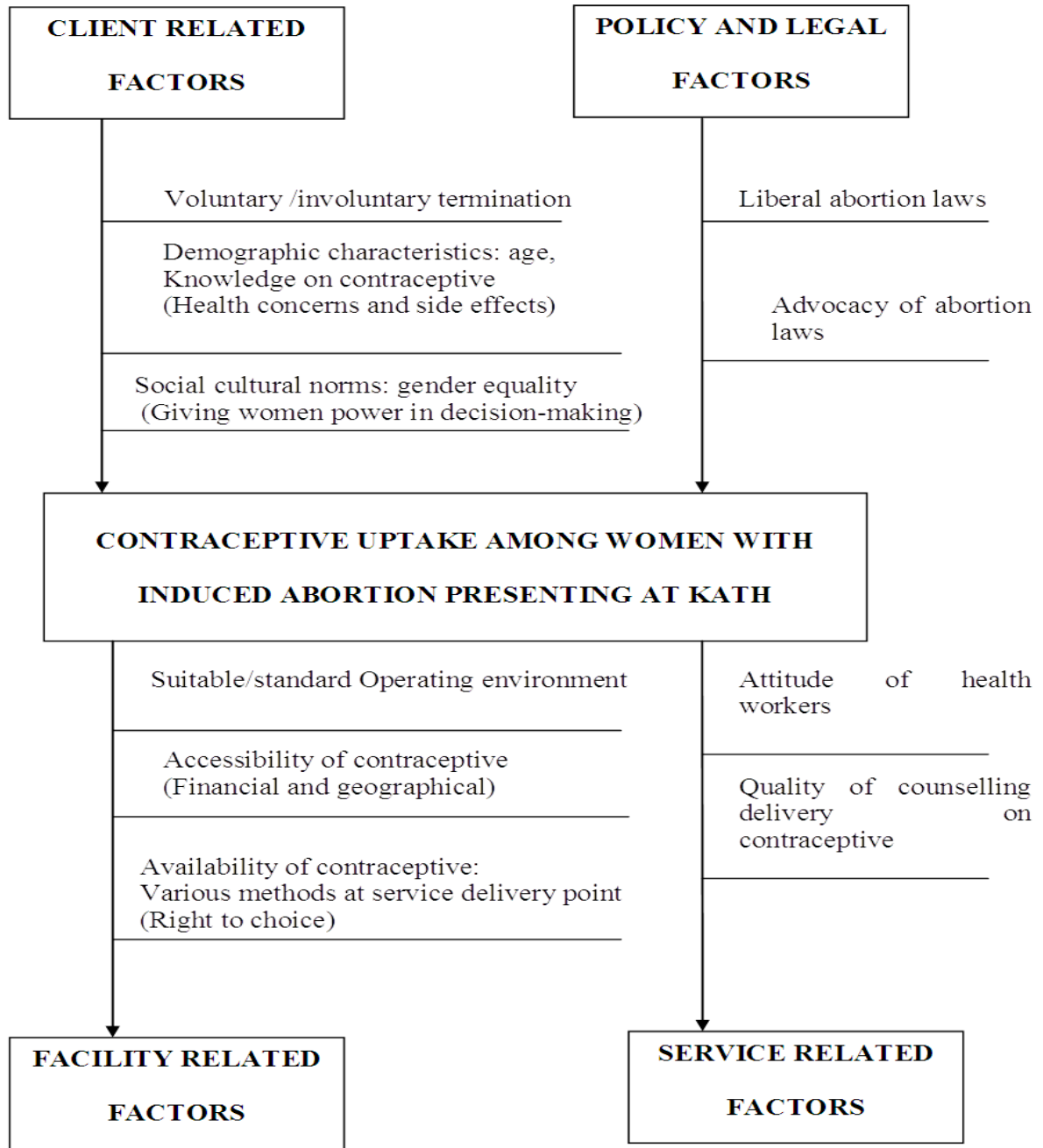
#### Conceptual framework

Figure 1 depicts a conceptual frame work that demonstrates the interrelationship between factors influencing contraceptive uptake among women with induced abortion and: socio-economic factors, service and client's related factors, policy and legal factors and others that can lead to contraceptive uptake.

Socio-cultural factors such as gender equality: women empowerment or giving women the power to decide on whether or not to use family planning services are contributory factors for contraceptive uptake. If only a man is given the mandate to make decisions on issues pertaining to health such as contraceptive uptake for the whole family as a sort of respect for religious beliefs and traditions, then the woman has no other choice than to follow the dictates of her husband even when she has the desire to use contraceptives or safe abortion services. Her failure to use contraceptives can result in unwanted pregnancy and if she is financially handicap, she can adopt clandestine abortion.

Service related factors like good attitude of health workers and adequate skilled providers are also some of the factors. This good attitude ensures confidentiality and fosters better relationship among health providers and these women coming to the hospital. Therefore, they choose to reject the myth or misconception about contraceptive uptake from their peers and relatives. Also, the hospital may neither have the contraception readily available (wide range of methods), the trained staff to provide the required services nor offer any counselling for the clients and even if they do, often they do it with some sort persuasion (unable to provide the clients choice).

Client related factors such as knowledge on contraceptive (Health concerns) social cultural (women's power in decision-making) and economic status, occupation, education level and age have a relation to contraceptive uptake. For instance, if a



**Figure 1:** interrelationship between factors influencing contraceptive uptake among women

woman is below age and becomes pregnant, she eventually opts for termination which is often determined by the partner due to socio-economic reasons to avoid stigmatization in favour of career opportunities.

Abortion law in Ghana is to a large extent liberal. The ignorance of the law as demonstrated in some studies (Morhe R.A.S. and E.S.K. Morhe, 2006) indicates that advocacy coupled with public education should be intensified. Though abortion is legal in Ghana, women still obtain unsafe abortions

due to lack of knowledge at the provider and population levels.

The above factors work hand in hand, assessing factors influencing contraceptive uptake among women with induced abortion presenting at KATH.

### LITERATURE REVIEW

Contraception is one of the major determinants of fertility levels. Its use has been increasing steadily



since 1970 and is currently widespread throughout the world. However, progress has been uneven across geographical areas and great challenges remain in terms of both increasing the level of contraceptive use to satisfy existing needs in certain regions and in terms of making available an adequate variety of contraceptive methods to increase the ability of individuals wishing to use contraception to do so in a consistent and efficient manner. Post-abortion contraceptive uptake is proposed as a strategy to avert unintended pregnancy and the practice of self-induced abortion which dates back to ancient times.

### Levels of contraceptive use:

#### Overview of post abortion contraceptive uptake

Worldwide contraceptive prevalence, the percentage of women using contraception among women of reproductive age who are married or in a consensual union is estimated to have reached 61 per cent in 1998, the average date for the most recent data available in 160 countries. However, this global average masks important disparities across and within developmental groups, major areas and regions. Contraceptive prevalence in less developed regions, averaging 59 per cent, was below that in more developed regions, which stood at 69 per cent. Within the less developed regions, Asia and Latin America and the Caribbean, with 64 per cent and 71 per cent prevalence respectively, had reached contraceptive levels comparable to those of the more developed regions, while Africa still lagged far behind with 27 per cent prevalence. Average prevalence for sub-Saharan Africa as a whole, estimated at 20 per cent, was even lower.

Although the great majority of countries in the world have now endorsed policies in support of family planning considerable disparities in their levels of contraceptive use still exist. Though contraceptive use has increased tremendously in the less developed regions, the overall level of use in those regions is still lower than that in the more developed regions. There are high proportions of couples in developing countries who discontinue the use of one method of contraception without promptly switching to another method, suggesting that mere increases in prevalence of contraceptive use need not necessarily mean success in avoiding unwanted or mistimed pregnancies.

In Africa, low levels of contraceptive use have persisted since the early 1970s in the countries of Eastern, Middle and Western Africa. Significant increases did not start in those regions until the late 1980s or early 1990s; a development that explains why 87 per cent of the countries in Africa with data

on trends still had contraceptive prevalence levels below 30 per cent in 2000.

Studies in Africa, Latin America and Russia have demonstrated an uptake of post abortion contraception of over 50% and as high as 87% among women who have received abortion care (whether for complications of spontaneous or induced abortions) and who are offered contraception prior to discharge from the health care facility, even when contraceptive use is relatively low across all women of reproductive age.

In Zimbabwe, a study showed that offering contraception to women at the time of post-abortion care prevented more unplanned pregnancies and repeat abortion in a one year period compared with women who did not receive contraceptive services at the same time or location of their treatment for abortion complications suggest there are sufficient service delivery points to provide decentralised abortion care, but that the full range of necessary abortion care services may not be provided at all these sites.

The costs of unsafe abortion extend well beyond those of the health system. Societies bear the economic cost of lower productivity caused by long-term disability and mortality due to unsafe abortion. It is estimated that these additional costs are three or more times as great as health systems' cost for PAC, including the family planning component. In a study conducted of one PAC service model in Oaxaca, Mexico, the estimated cost per patient of providing family planning counselling and a contraceptive method totaled US \$2.90, compared with \$35–180 per patient for another PAC visit due to repeat unplanned pregnancy and abortion.

### Global View

Globally, the strength of government commitment tends to be greater than actual funding levels or program implementation efforts. Family planning has been cited as essential to the achievement of Millennium Development Goals by former United Nations Secretary General Kofi Annan and as such, part of the fifth Millennium Development Goal targets universal access to family planning as a key strategy for improving maternal health. The proportion of governments in less-developed countries that provide direct or indirect support for contraceptive access grew from 64% in 1976 to 87% in 2009.

Global domestic spending on population activities which includes family planning, reproductive health, sexually transmitted diseases or human immunodeficiency virus (HIV) or acquired immunodeficiency syndrome and basic research by governments, nongovernmental organizations and consumers reached \$18.5 billion in 2006, but nearly

half (45%) was allocated to sexually transmitted diseases/HIV/acquired immunodeficiency syndrome. Estimates of donor assistance in 2008 for this sector total \$10.6 billion, but only \$0.25 billion (2.4%) is directed toward supporting family planning or approximately US \$0.17 per woman of childbearing age in developing countries.

### **African Context**

Fertility and future projected population growth are much higher in sub-Saharan Africa than in any other region of the world, and the decline in birth rates, which was already modest, has slowed even further over the past decade. Concern that uncontrolled population growth will hinder the attainment of development and health goals in Africa led to the present study, which rests on the assumption that a woman who has had induced abortion and has been counselled on contraceptive use will intend use contraceptive. Ideally, those who have induced abortion are expected to be on contraceptive to avoid further unwanted pregnancies.

In developing countries, maternal mortality is high, with 440 deaths per 100,000 live births (in sub-Saharan Africa, this figure reaches 920). One in three women gives birth before age 20 and pregnancy-related morbidity and mortality rates are particularly high in this group. One quarter of the estimated 20 million unsafe abortions and 70,000 abortion related deaths each year occur among women aged 15–19 years, and this age group is twice as likely to die in childbirth as women aged 20 or over. It is estimated that 90% of abortion-related and 20% of pregnancy-related morbidity and mortality, along with 32% of maternal deaths, could be prevented by use of effective contraception.

Premarital exposure to pregnancy risk has increased, with a widening gap between sexual debut and age of marriage and increased sexual activity prior to marriage, placing young women at increased risk when they are most socially and economically vulnerable. Reported sexual activity among adolescents in developing countries is generally high, although there is considerable variation between countries and data validity is often poor. In sub-Saharan Africa, 75% of young women report having had sex by age 20.

However, few sexually active adolescents in developing countries use modern contraceptive methods such as oral contraceptives and condoms and although there is considerable variation between countries, uptake is generally much lower than in developed countries. For example, 69% of adolescent women in a UK study reported use of a modern contraceptive method at most recent sex, compared with 12% in Mali, and in the US 54% of

15–19 year old females reported condom use at most recent sex, compared with 21% in Tanzania. Overall, it is estimated that 37% of unmarried, sexually active women aged 15–24 years in sub-Saharan Africa use contraception but only 8% use a non-barrier method. Hubacher, Mavranetzouli and McGinn suggest that the choice of implant rather than oral or injectable contraceptives could have a big impact on unintended pregnancy in this age group. However, greater promotion of any modern method has to be informed by better understanding of why uptake is so low among adolescents in the first place.

### **The Situation in Ghana and KATH**

Studies indicate that a sizable percentage of women in Ghana have, at some time, resorted to the voluntary termination of an unwanted pregnancy. Ghanaians approach the topic of induced abortion with the view that it goes against traditional ethics and values, however, large numbers of maternal morbidity and mortality cases arise from unsafe abortions. Statistics from the 2007 Ghana Maternal Health Surveys (GMHS) suggest that 11 per cent of maternal deaths result from these unsafe abortions.

Although the abortion law in Ghana is said to be "broadly interpreted", abortion is illegal unless performed by a medical practitioner in a medical facility under circumstances involving rape or defilement of a female idiot, incest, foetal impairment or when physical or mental risk could occur to harm the life of the woman. Hence, in Ghana, induced abortions are not legal if performed upon request or for social or financial purposes. GMHS results show that about four per cent of abortion seekers perceived abortion as legal in Ghana under a variety of circumstances.

Characteristics of abortion seekers reveal that rates are higher among 20 to 24 year olds, those who live in urban areas as well as among women who belong to the highly educated and wealthier categories. In addition, the 2007 Ghana Maternal Health Survey reports that one in five women who experienced an abortion in the last five years cited financial constraints as the main reason for terminating the pregnancy for those residing in both rural and urban settings.

The 2008 Ghana Demographic and Health Survey (GDHS) showed an increase in contraceptive use among currently married women in Ghana, from 13.0 per cent in 1988 to 23.5 per cent in 2008. Similarly, an increase in the proportion of sexually active unmarried women using a contraceptive method was noted between 2003 and 2008, from 43.5 per cent to 50.4 percent. This increase in contraceptive use is encouraging; however, studies

suggest that Ghana's contraceptive prevalence rate (CPR) is still too low to have solely led to the observed reduction in fertility levels from 1988 to 2008. Induced abortion, however, (taken together with contraceptive use) could explain this decrease in fertility.

Among married Ghanaian women, the percentage of current contraceptive non-use is 76.5 per cent while 50.4 per cent of married women had ever used any method. In societies, where men make the decisions regarding the woman's reproductive health, it becomes essential to know men's contraceptive use habits. About 57 per cent of all men aged 15 to 59 stated they had used a male method at one time, the highest percentage being that of the male condom at 46.0 per cent. Among all men and married men, 98.9 per cent and 99.5 per cent knew of a contraceptive method, respectively. In terms of women's knowledge, 97.8 per cent of all women and 97.9 per cent of married women knew of any method of contraception. Therefore, knowledge about contraceptive methods, whether traditional or modern, among men and women in Ghana is high while use of any method is low.

The Komfo Anokye Teaching Hospital (KATH) in Kumasi, Ghana, is the second-largest hospital in the country and the only tertiary health institution in the Ashanti Region. It is the main referral hospital for the Ashanti, Brong Ahafo, Northern, Upper East and Upper West Regions. KATH is a major tertiary teaching hospital serving most part of the middle and northern parts of Ghana and is one of the busiest tertiary gynaecological centers in the most populous region in Ghana. Abortion-related constituted about 10% of maternal deaths. Hypertensive-related deaths are 48%, followed by sepsis and then abortion and haemorrhage. A previous unpublished work (Janet's work) revealed about two-thirds of cases of abortion presenting to the hospital as unsafe.

## Contraceptive Methods in Development

### Female contraceptive

Praneem is a polyherbal vaginal tablet being studied in India as a spermicide, and a microbicide active against HIV.

BufferGel is a spermicidal gel being studied as a microbicide active against HIV.

Duet is a disposable diaphragm in development that will be pre-filled with BufferGel. It is designed to deliver microbicide to both the cervix and vagina. Unlike currently available diaphragms, the Duet will be manufactured in only one size and will not require a prescription, fitting or a visit to a doctor.

The SILCS diaphragm is a silicone barrier that is still in clinical testing. It has a finger cup molded on one end for easy removal. Unlike currently available diaphragms, the SILCS diaphragm will be available in only one size.

A longer acting vaginal ring is being developed that releases both estrogen and progesterone, and is effective for over 12 months.

Two types of progestogen-only vaginal rings are being developed. Progestogen-only products may be particularly useful for women who are breastfeeding. The rings may be used for four months at a time.

Progesterone-only contraceptive is being developed that would be sprayed onto the skin once a day.

Quinacrine sterilization (non-surgical) and the Adiana procedure (similar to Essure) are two permanent methods of birth control being developed.

### Male contraceptive

Other than condoms and withdrawal, there is currently only one method of birth control available. This option is undergoing a vasectomy, a minor surgical procedure wherein the vasa deferentia of a man are severed and then tied or sealed in a manner which prevents sperm from entering the seminal stream (ejaculate). Several methods are in research and development.

As of 2007, a chemical called Adjudin was in Phase II human trials as a male oral contraceptive.

Reversible inhibition of sperm under guidance is an experimental injection into the vas deferens that coats the walls of the vas with a spermicidal substance. The method can potentially be reversed by washing out the vas deferens with a second injection.

Experiments in vas-occlusive contraception involve an implant placed in the vasa deferentia.

Experiments in heat-based contraception involve heating the testicles to a high temperature for a short period of time.

### Effectiveness

Effectiveness is generally measured by how many women become pregnant using a particular birth control method in the first year of use. Thus, if 100 women use a method that has a zero (0) percent first-year failure rate, then zero (0) of the women should become pregnant during the first year of use. This equals zero (0) pregnancies per 100 woman-years, an alternative unit. Sometimes the

effectiveness is given in lifetime failure rate, more commonly among methods with high effectiveness, such as vasectomy after the appropriate negative semen analysis.

The most effective methods in typical use are those that do not depend upon regular user action. Surgical sterilization, Depo-Provera, implants and intrauterine devices (IUDs) all have first-year failure rates of less than one percent for perfect use. In reality, however, perfect use may not be the case, but still, sterilization, implants and IUDs also have typical failure rates under one percent. The typical failure rate of Depo-Provera is disagreed upon, with figures ranging from less than one percent up to three percent.

Other methods may be highly effective if used consistently and correctly, but can have typical use first-year failure rates that are considerably higher due to incorrect or ineffective usage by the user. Hormonal contraceptive pills, patches or rings, fertility awareness methods, and the lactational amenorrhea method (LAM), if used strictly, have first-year (or for LAM, first-6-month) failure rates of less than 1%. In one survey, typical use first-year failure rates of hormonal contraceptive pills (and by extrapolation, patches or rings) were as high as five percent per year. Fertility awareness methods as a whole have typical use first-year failure rates as high as 25 percent per year; however, as stated above, perfect use of these methods reduces the first-year failure rate to less than 1%.

Intrauterine devices (IUDs) were once associated with health risks, but most recent models of the IUD, including the ParaGard and Mirena, are both extremely safe and effective and require very little maintenance.

Condoms and cervical barriers such as the diaphragm have similar typical use first-year failure rates (14 and 20 percent, respectively), but perfect usage of the condom is more effective (three percent first-year failure versus six percent) and condoms have the additional feature of helping to prevent the spread of sexually transmitted diseases such as the HIV virus.

The withdrawal method, if used consistently and correctly, has a first-year failure rate of four percent. Due to the difficulty of consistently using withdrawal correctly, it has a typical use first-year failure rate of 19 percent and is not recommended by some medical professionals.

Combining two birth control methods, can increase their effectiveness to 95% or more for less effective methods. Using condoms with another birth control method is also one of the recommended methods of reducing risk of getting sexually transmitted infections, including HIV. This approach is one of the Dual Protection Strategies.

### **Demographic Characteristics influencing Contraceptive Uptake among women**

In developing countries, maternal mortality is high, with 440 deaths per 100,000 live births (in sub-Saharan Africa, this figure reaches 920). One in three women gives birth before age 20 and pregnancy-related morbidity and mortality rates are particularly high in this group. One quarter of the estimated 20 million unsafe abortions and 70,000 abortion related deaths each year occur among women aged 15–19 years, and this age group is twice as likely to die in childbirth as women aged 20 or over. It is estimated that 90% of abortion-related and 20% of pregnancy-related morbidity and mortality, along with 32% of maternal deaths, could be prevented by use of effective contraception. In sub-Saharan Africa, it is estimated that 14 million unintended pregnancies occur every year, with almost half occurring among women aged 15–24 years.

Premarital exposure to pregnancy risk has increased, with a widening gap between sexual debut and age of marriage, and increased sexual activity prior to marriage, placing young women at increased risk when they are most socially and economically vulnerable. Reported sexual activity among adolescents in developing countries is generally high, although there is considerable variation between countries and data validity is often poor. In sub-Saharan Africa, 75% of young women report having had sex by age 20.

However, few sexually active adolescents in developing countries use modern contraceptive methods such as oral contraceptives and condoms, and although there is considerable variation between countries, uptake is generally much lower than in developed countries. For example, 69% of adolescent women in a UK study reported use of a modern contraceptive method at most recent sex, compared with 12% in Mali, and in the US 54% of 15–19 year old females reported condom use at most recent sex, compared with 21% in Tanzania. Overall, it is estimated that 37% of unmarried, sexually active women aged 15–24 years in sub-Saharan Africa use contraception but only 8% use a non-barrier method. Hubacher, Mavranzouli and McGinn suggest that the choice of implant rather than oral or injectable contraceptives could have a big impact on unintended pregnancy in this age group. However, greater promotion of any modern method has to be informed by better understanding of why uptake is so low among adolescents in the first place.

Previously identified limits to contraceptive use among adolescents in developing countries include lack of knowledge, sex education and access to

services; risk misperceptions; and negative social norms around premarital sexual activity and pregnancy. Only one of these reviews focused on adolescents and neither focused exclusively on qualitative research nor adopted systematic review methodology to critically appraise the included research studies. Focusing on qualitative research allows the assessment of complex processes, often missed in quantitative studies and the assessment of study quality allows the selection of the most reliable and valid findings. This, in turn, improves the reliability and validity of the conclusions drawn.

Although there has been a systematic review of qualitative research on young people's sexual behaviour we know of no systematic reviews of qualitative studies specific to contraceptive use to determine the full extent of the difficulties faced by young women in accessing modern methods. We undertook a systematic review of qualitative research on young women's own views of their contraceptive choices to examine factors limiting modern method use. By combining the findings from such studies we can demonstrate how themes may be common across settings and contexts.

Annually around 80 million unwanted pregnancies occur worldwide and most of them were due to the non-use or the inconsistent use of contraceptive methods. In developed countries, the contraceptive methods are accessible and most of the women who had undergone an abortion are in the lesser use of consistent contraception methods, such as condoms, coitus interruptus and the rhythm method. In most of the developing countries, unwanted pregnancies are mainly consequence of restricted access to family planning services.

Financial circumstances were the most common reason for seeking abortion (75%). The combined oral contraceptive pill and condoms were the most common forms of contraception used by these patients before the first abortion (35% and 38%, respectively). Long-acting reversible contraception (LARC) was used by only 8% of women before their first termination. However, although 58% accepted LARC following abortion, which would appear to support Department of Health policy, only 2% continued its use thereafter. And 50% of women were not using any contraception at the time of the repeat abortion.

### **Reasons associated with use or non-use among women**

The degree to which women are able to control the various aspects of their sexual lives (i.e. their ability to negotiate the timing of sex, conditions under which it takes place, and the use of contraception)

plays a critical role in determining their use of contraceptives.

People's control over their sexual lives and choices is in turn shaped by gender-related values and norms defining masculinity and femininity. These culturally-defined gender values and norms evolve through a process of socialisation starting from an early stage of infancy. They determine and reinforce themselves through traditional practices such as wife sharing, widowhood related rituals, early marriage, female genital mutilation and the condoning of gender-based violence.

Studies have suggested that greater gender equality may encourage women's autonomy and may facilitate the uptake of contraception because of increased female participation in decision making (Hakim et al.2003). However, it has not been set as a prerequisite for widespread adoption of contraceptives (Amin, 1998). Much of the relevant demographic literature that has addressed the links between gender inequality and fertility regulation has focused on women's 'autonomy' (Furuta and Salway, 2006; Cleland et al.1996). The concept of autonomy is multidimensional, hence the factors included within the concept has also varied between authors. For most of the work in South Asia, women's participation in household decision making, her mobility, and control over her financial resources have been taken as indicators of 'autonomy'.

Nearly 20 years has passed since the 1994 International Conference on Population and Development recognised men as legitimate targets for sexual and reproductive health promotion. This recognition was born of the experience of many health promoting agencies in the 1980s and 1990s who realised that without working with men, change would be very difficult or impossible. It was proposed that men should be involved because their active participation was crucial to the success of programs and to the empowerment of women.

However, the idea that men should play an active role in health promotion has not been without its critics, who have posed serious questions about the efficacy of involving men and the effects their involvement would have on women and children. During the 1980s there was a tacit, if gradual, recognition within health promotion that men were an important factor in the health of women and children. Research showed that men not only acted as 'gatekeepers', restricting women and children's access to health services, but also through abuse or neglect, men's actions had direct bearing on the health of their partners and their children (Gallen *et al.*, 1986). Initially, the way to deal with what increasingly had come to be regarded as 'the problem of men' was thought to be to foster women's empowerment through working directly

with women.

Literature on the effect of decision-making patterns on contraceptive use often does not distinguish between women participating in decisions and controlling them and account for effects of common decision-making patterns within the community. In Uganda where high fertility persists, both of these factors may be relevant to adoption of contraception. Data from the 1995/96 Negotiating Reproductive Outcomes (NRO) Study which surveyed 1,750 women in 78 communities located in two districts in Uganda were used. Effects of individual and community factors on the adoption of modern contraceptive methods using multilevel logistic regression were assessed. Measures included were of decision-making patterns at both the individual and community levels that distinguished husband-dominated, joint, and wife-dominated decision-making patterns. Contraceptive use is 29% more likely in communities where women more commonly have unilateral control over household decisions.

This strong effect of normative decision-making patterns within the community is net of individual education and community education, both of which had strong and significant effects. Less traditional gender roles as measured by normative decision-making patterns seem to support more innovative fertility behavior. Community decision-making patterns matter importantly for contraceptive use in this low contraceptive prevalence setting and need to be assessed elsewhere. Further, women's influence is inadequately measured where joint decision-making and wife-dominated decision-making are considered together.

When a couple's most fundamental assumptions of a faith are dissimilar to those of the health care provider, medical recommendations may be made that are not in keeping with the couple's religious or cultural values. Health care providers in culturally diverse nations must understand the possible influences of culture and religion on a couple's willingness to use contraception, and they should be familiar with a range of contraceptive options in order to address such situations in the most appropriate way. Within a faith there is often no consensus among practitioners, although for some religions, universal doctrines may be enunciated.

Over and above religious views, the cultural values of a given population may greatly affect sexual and contraceptive behaviour. Some religions are subdivided into denominations, adherents of which may have their own distinct interpretation of religious teachings. These differences complicate the attempt to articulate a single position for a given religion. In addition, although individuals may identify with a particular faith, they may not agree at a personal level with official teachings. Whether a

particular woman and her partner adhere to these beliefs is a matter for discussion on an individual basis.

Religions vary widely in their views of the ethics of birth control. The Roman Catholic Church accepts only Natural Family Planning and only for serious reasons, while Protestants maintain a wide range of views from allowing none to very lenient. Views in Judaism range from the stricter Orthodox sect to the more relaxed Reform sect. In Islam, contraceptives are allowed if they do not threaten health, although their use is discouraged by some. Hindus may use both natural and artificial contraceptives; however they are against any contraceptive method that works after fertilization. A common Buddhist view of birth control is that preventing conception is ethically acceptable, while intervening after conception has occurred or may have occurred is not.

A number of nations today are experiencing population decline. Growing female participation in the work force and greater numbers of women going into further education has led to many women delaying or deciding against having children, or to not have as many. In Eastern Europe and Russia, natality fell abruptly after the end of the Soviet Union. The World Bank issued a report predicting that between 2007 and 2027 the populations of Georgia and Ukraine will decrease by 17% and 24% respectively.

### **Availability of FP Services: Right to Choice**

Lack of availability of contraceptive methods at the service delivery point, even when contraceptives are available in the facilities; lack of availability of a wide range of methods, thus limiting client choice; and lack of record-keeping systems that serve as reminders to use the oldest stocks first, thereby preventing the expiration of methods before they are used, and of systems that note whether women receiving PAC services receive family planning counseling and methods before they are discharged from the facility.

At the provider level, barriers include inadequate knowledge about the early return to fertility; denial of certain or all methods to some groups, such as adolescents or women who have not yet delivered a child; a lack of or inadequate patient counselling on PAC procedure, untimely choosing and obtaining a family planning method before discharge from the facility.

At the client level, obstacles to use of post abortion family planning services include fear of side effects; a belief that the risk of becoming pregnant is low, due to age, infrequent sexual intercourse or other reasons; lack of awareness or knowledge of

family planning methods and partner disapproval of contraceptive use.

The concept of the right to contraceptive choice, as an essential component of reproductive and sexual rights, has been endorsed by several landmark global consensus documents and international institutions. For instance, the Programme of Action adopted at the International Conference on Population and Development (ICPD) held in Cairo in 1994 recommended that family planning programmes should "Recognize that appropriate methods for couples and individuals vary according to their age, parity, family-size preference and other factors, and ensure that women and men have information and access to the widest possible range of safe and effective family-planning methods in order to enable them to exercise free and informed choice" (United Nations Population Information Network, 1994).

The first edition (1996) of the World Health Organization's Medical Eligibility Criteria (MEC) states that WHO "is giving priority to improving access to high-quality care in family planning through a variety of strategies", and lists one of these strategies as "promoting the widest availability of different contraceptive methods so that people may select what is most appropriate to their needs and circumstances" (WHO, 1996). The recognition of right to choice continues to be emphasized in the 3rd edition of the MEC which states: "All individuals have the right to access, choice and the benefits of scientific progress in the selection of family planning methods" (WHO, 2004b).

The rights-based approach to contraceptive provision is also endorsed by Hatcher *et al.* in the handbook for clinic staff on the essentials of contraceptive technology (Hatcher *et al.*, 2005). A rights-based approach has also informed the use of the MEC process in safely widening the range of providers who can offer different contraceptive options (Walsh *et al.*, 2006).

Choice of methods has been described as one of six elements regarded as critical to quality of care in family planning programmes which will lead to improved initial acceptance and sustained use. Bruce defines "Choice of methods" as "both the number of contraceptive methods offered on a reliable basis and their intrinsic variability" (Bruce, 1990). The meaning of choice is encapsulated by Bruce: "Providing a choice does not necessarily mean that every program must provide all methods, but overall program effort on a Systematic review: contraceptive choice geographic basis should be sufficient so that prospective users have reasonable if not utterly equal access to a variety of methods."

Choices are made under particular circumstances and vary in differing social and cultural contexts,

(WHO, 2002, WHO, 2004b). Research [has] demonstrated that choices are complex, multifactorial and subject to change (Walsh, 1997). In as early as 1985, Snowden wrote that no contraceptive method is perfect and that women need to make trade-offs among different methods, necessitating access to a range of methods: "The methods of fertility regulation from which most couples choose represent a choice among unpleasant alternatives." The choice is not so much a positive discrimination but a negative one, in that the methods not chosen are even more disliked than the method that is chosen". The contraceptive methods most people use are therefore the least unpleasant set of alternatives.

However, it is most important that this realistic summary is set against the other reality that consumers greatly prefer the available range of methods to no method at all (Snowden 1985, cited in Welsh, 1997). Walsh states that "... the notion of a perfect, more or less universally acceptable contraceptive for women is unrealistic-women's needs, concerns and (above all) their expectations and experiences of using contraception are very diverse". Recognition of these trade-offs and the changeability of contraceptive needs was again documented by WHO in 2004: "Decision-making for contraceptive methods usually requires the need to make trade-offs among the different methods, with advantages and disadvantages of specific methods varying according to individual circumstances, perceptions and interpretations" (WHO, 2004b). Factors such as age, gender, contraceptive intention (spacing versus limiting), lactation status, health profile, tolerance of side effects, and income are reported to affect method choice (Bruce, 1990).

Contraceptive choice is said to be in part dependent on how effective the method is and continuation rates are generally higher with more effective methods. For instance, with the male condom, the percentage of women experiencing an unintended pregnancy within the first year of typical use was reported to be 15%, with the 53% of women continuing use at one year (WHO, 2004b). On the other hand, with the intrauterine device the percentage of women experiencing an unintended pregnancy within the first year of typical use was found to be 0.8%, with the 78% of women continuing use at one year (WHO, 2004b).

Provision of a wide range of safe, effective, and convenient family planning methods is said to encourage more people to use contraception. An early review (1989) of the literature and modelling of existing data on the relationship between increasing the number of methods and the demographic impact indicated that enhancing choice of contraceptive methods increased contraceptive practice, resulting

in fertility reduction (Jain, 1989). Four central findings from the data reviewed and analysed were:

1. Addition of a method yields a net increase in contraceptive prevalence.
2. One-method family planning programs are inadequate to meet individual fertility goals.
3. Availability of multiple methods increases contraceptive use.
4. Contraceptive prevalence depends upon the number of methods made available through multiple outlets in a country.

In poor countries, increasing the choice of methods available can lead to increased contraceptive prevalence. There is however little evidence on how women choose between contraceptive methods and what socio-economic, demographic or other factors influence their choice (Hardon, 1997). Heise argues for reorienting research on contraceptive choice which includes the exploration of “how and why women make the trade-offs they do when choosing among available methods” (Heise, 1997). It has been recognised though that women have very different contraceptive needs at different times in their lives (Anonymous, No date-b). Key findings released by the United Nations Department of Economic and Social Affairs Population Division on current contraceptive practice from 160 countries and areas worldwide show that 61% of all women of reproductive age who are married or in a consensual union are using contraception (Department of Economic and Social Affairs Population Division, 2003). Nine out of ten women rely on modern methods, most commonly female sterilization (21% of women married or in union), intrauterine devices (14%), and oral contraceptives (7%).

In developing countries, longer-acting, highly effective methods are more popular (female sterilization, used by 23%; IUDs, used by 15%), and in developed countries, short-acting and reversible methods (oral contraceptives, used by 16%; condoms, used by 13%), are more often used. Further, condoms are usually used as the primary contraceptive method in developed countries, while in developing countries; they tend to be used with other more effective methods, in addition to being used less frequently than in developed countries. These findings provide some sense of the diversity of method popularity across the world. Importantly, one Data were compiled mainly from survey based on nationally representative samples of women, 15-49 years, and refer mainly to 1998. Outmoded methods may persist in some settings, even when the social circumstances that led to their adoption have disappeared (Potter, 1999). No “ideal” method mix has been recognised and many countries’ existing method mix has been portrayed as

“skewed” (defined as a situation where a single method accounts for 50% or more of current use)

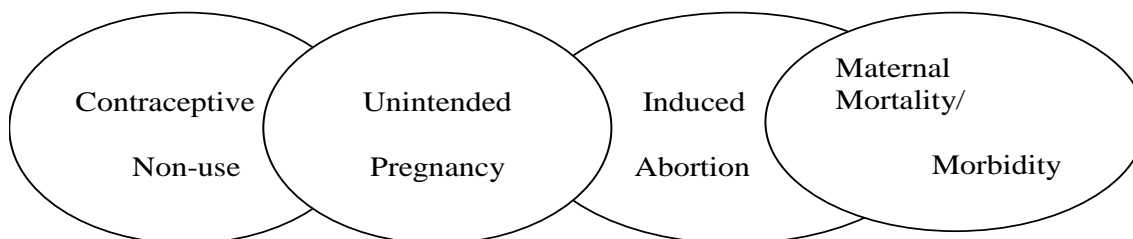
Bongaarts and Johansson have predicted a “gradual increase in availability of a wider range of methods” in developing countries, making the explicit value judgments that this will be due to an associated with improved quality of services, more open markets and higher levels of contraceptive knowledge and education (Bongaarts and Johansson, 2002). Within the life cycle of a contraceptive product, a “boom and bust” phenomenon has been identified, with periods of very positive public image followed by periods of increasingly negative public image (Boonstra *et al.*, 2000). Given the existence of a large unmet need and an expanding set of technological options, some may see a conflict between a rights-based approach (consistent with the provision of a wide choice of methods) and an approach consistent with the Essential Medicines concept (consistent with a rationed choice between methods). Essential medicines must be carefully selected, on the basis of explicit criteria, to meet the priority healthcare needs of a population.

Far from being antithetical to a rights-based approach, application of the Essential Medicines has been described as a means for countries to practically implement their obligations in respect of human rights (Hogerzeil, 2006). A tension between states’ obligations to provide access to “health” (especially when correctly seen as a state of complete physical, mental and social wellbeing, rather than just the absence of disease) and the availability of resources cannot be avoided in any setting, whether in the developed or the developing world. Instead, as Hogerzeil has argued, a right-informed application of the Essential Medicines concept would demand that particular vulnerable groups be considered. Women are usually included as one such group. Young people also constitute a particular group who’s sexual and reproductive rights have not always been given the necessary attention by policymakers and service providers (Sundby, 2006).

Nonetheless, a review of evidence-based contraceptive choices has recently noted that “The most successful contraceptive method is likely to be the one that the woman (or man) chooses, rather than the one the clinician chooses for them” (Scott and Systematic review: contraceptive choice (Glazier, 2006). Exchanges in the medical media over the introduction of long-acting implantable contraceptives have highlighted the human rights angle (Thompson, 1996, Bromham, 1996).

In this review, the evidence on whether a policy of providing a wide range of contraceptive methods, as opposed to the provision of a limited range, improves health outcomes such as contraceptive





**Figure 2:** Interrelationships between contraception, unintended pregnancy and induced abortion

uptake, acceptability, adherence, continuation and satisfaction; reduction of unintended pregnancy; and improved maternal health and wellbeing. The results are presented as a hierarchy of evidence, within groupings of research questions. In addition, attention is given to the cross-cutting concerns of meeting the needs of women through the stages of life, of particular groups (such as adolescents, those infected or at-risk of HIV or with medical conditions), and of those seeking to space or limit their families.

### The unmet need for family planning

The outset of the knowledge, attitudes and practice regarding FP was recognised as the rationale for investments in FP programs. The extent of unintended fertility and correspondingly, the amount of unsatisfied demand for fertility regulation is crucial to determining strategies to reduced fertility. The assumption often unstated has been that prevention of unintended pregnancies through contraception is preferred to prevention of unintended births through induced abortion, although the impact on aggregate fertility rates is for all intents and purposes the same.

About a quarter of all women wants to stop having children or to postpone the next pregnancy for at least two years, but is not using contraceptives. Such women are defined by Demographic and Health Surveys, DHS as having an 'unmet need' for family planning. Unmet need does not necessarily mean that family planning services are not available. It may also mean that women lack information, or that the quality of the services on offer does not inspire the necessary confidence, or that women themselves have little say in the matter (Westoff, 1991). Thus, the total demand for FP is the sum of contraceptive prevalence and unmet need.

The measure of need: percentage of currently married women aged 15-49 who want to stop having children or to postpone the next pregnancy for at least two years, but who are not using contraception. Nonetheless, where family planning services are considered to be strong - as in Brazil, Sri Lanka, Thailand, or Viet Nam - unmet demand is less than 15%. In eight of the sub-Saharan African countries

surveyed, unmet need rises to between 30% and 42% of which Ghana is included with 37% unmet need.

The level of unmet demand says little about either overall demand or the level of contraceptive use. In both Botswana and Uganda, for example, unmet demand is estimated at 27%; but in Botswana the overall demand is 60% of which 33% is met, whereas in Uganda the overall demand is 32% of which only 5% is being met (DHS, 1994).

### Interrelationships between contraception, unintended pregnancy and induced abortion

Ghana's total fertility rate has declined steadily since 1990; 5.2<sub>1993</sub>, 4.4<sub>1998</sub>, 4.4<sub>2003</sub>, 4.0<sub>2008</sub>. Decreases in total fertility rates-TFR are expected to be matched by increases in contraception prevalence rates-CPR but this has not happened all the time in Ghana; 10%<sub>1993</sub>, 13%<sub>1998</sub>, 19%<sub>2003</sub> and 17%<sub>2008</sub> (modern methods) Source: GDHS 1993; GDHS 1998; GDHS 2003; GDHS 2008. Induced abortion is suspected for this mismatch since some women still use induced abortion as a means of birth control (figure 2).

Barriers to contraceptive use exist across a wide variety of country settings but the specific barriers to use vary depending on the country as well as the life stage of different women within that country.

Contraception could avert unintended pregnancy and the practice of self-induced abortion whereas contraceptive non-use might lead to unintended pregnancy which would intend lead to self-induced abortion and later result in maternal mortality or morbidity.

### Knowledge gaps and innovations on contraceptive uptake in the World, Africa and Ghana

It has been established that the prevalence and effectiveness of contraception is important in predicting unintended pregnancy and the abortion rate. Thus, use of effective contraceptive methods is essential in preventing unintended pregnancies that

are later voluntarily terminated. However, recent data reveal that among women who experienced an induced abortion between 2002 and 2007, about 70 per cent failed to use a method prior to the terminated pregnancy. Twenty-eight per cent of women used a method but reported experiencing contraceptive failure.

Post-abortion contraceptive counselling is a critical point of intervention and service delivery and provides a powerful rationale for PAC services. In practice, however, treatment of complications is usually the sole focus and family planning is often neglected. It is essential to restore the family planning component to PAC services, not only to prevent repeat unintended pregnancy and abortion, but also because it is integral to achieving the Millennium Development Goals, other health objectives reducing maternal morbidity and mortality, mother-to-child transmission of HIV and new HIV infections.

Again, services could produce cost savings as well as rapid results, women and communities should demand quality PAC services that provide them with accessible, cost-effective post abortion family planning services that can assist them in reducing unplanned pregnancy and repeat abortion, reduce new HIV infections, improve the health of a woman's next child and ultimately improve the health of her family.

The whole of Africa needs research-based evidence and technical advice to the government in the development of its national health policies and programs. The results of the Navrongo experiment demonstrated that affordable and sustainable means of combining nurse services with volunteer community action can accelerate attainment of the United Nations Millennium Development Goals (MDGs).

There is still the need for the Government of Ghana to initiate programmes in the effort to reach its MDG5 goal by 2015, with particular focus on the reduction of maternal morbidity and mortality due to unsafe abortion by improving access to and the quality of contraceptive services.

A woman who has had induced abortion and has been counselled on contraceptive use will use contraceptive.

## **METHODOLOGY**

The study methods and design as well as the techniques used in collecting data for the study were explained in this chapter. It showed how the research was pretested to ensure that the data collection tools did collect the right data. This ensured accurate data analysis which revealed the main findings of the study.

## **Study methods and design**

Ethical clearance was sought from the Committee on Human Research Publications and Ethics of KATH and Kwame Nkrumah University of Science and Technology. All patients presenting with abortion were approached and asked to participate in the study. Those meeting the criteria for the study were selected for the part of the study that was done after their discharge from the hospital.

A cross-sectional study design was used to assess factors influencing contraceptive uptake among women with abortion presenting at KATH from June to August, 2012. The data were analysed using SPSS version 16 and expressed in simple percentages. A group of individuals with induced abortion was identified and then determined what proportion used contraceptive and what proportion did not use it through a follow-up after their discharge from the hospital. Both qualitative and quantitative research methods were used for the study.

## **Study Area**

### **District profile**

Komfo Anokye Teaching Hospital (KATH) is located at the heart of the Kumasi Metropolis, the regional capital of Ashanti Region. Kumasi Metropolis has a projected population of 3.2 million during the total 2010 Census. KATH is a teaching hospital with a total bed population of 1000. It receives referral from practitioners within the metropolis (both private and public), all the 19 districts within the region and beyond.

Abortion-related deaths constitute about 10% of maternal deaths. Hypertensive-related deaths are 48%, followed by sepsis and then haemorrhage. A previous unpublished work (personal communication with Janet Sintim-Aboagye) revealed about two-thirds of cases of abortion presenting to KATH are unsafe.

It was therefore considered appropriate to study patients with complications of unsafe abortion seen at the hospital with a view to appraising their socio-demographic characteristics, the quality of services they receive both before and during the index event, their perception, understanding and acceptance of the various components of FP or post-abortion care and identifying factors that might be responsible for influencing contraceptive uptake among women with induced abortion.

### **Location and size**

This region lies between longitude 0.15° West and

latitude 5.5° -7.4° North. It shares boundaries with Brong Ahafo to the north, Eastern Region to the east, Central Region to the south and Western Region to the south-west. Its size of 24,390sq km represents 10.2% for the total land mass of Ghana. The geographical location of the Hospital, the road network of the country and the commercial and metropolitan nature of Kumasi make the hospital easily accessible to all the areas that share boundaries with Ashanti Region and others that are farther away. As such, referrals are received from various places - within the region and from outside the region.

### Management

The Chief Executive Officer (CEO) is in charge of the day to day management of the hospital, supported by five directors. However, the operational management of the hospital is decentralized to the directorate level. There are ten Clinical Directorates (Obstetrics and Gynecology, Child Health, Surgery, Medicine, DEENT (Dental, Eye, Ear, Nose and Throat), Diagnostics, Oncology, Polyclinic, Accident and Emergency, and Anesthesia and Intensive Care Units. The two non-clinical Directorates are Domestic and Technical Services which deal with diet and maintenance of equipment respectively.

### Study population

It comprised all women within the age range of 15-49 years presenting with abortion in KATH from June to August, 2012. They were approached and asked to participate in a study on factors influencing contraceptive uptake in KATH. The target population was the women with induced abortion.

### Inclusion criteria

A woman in the age group of 15 and 49 years presenting at KATH with abortion and had given her consent to participate in the study.

### Exclusion criteria

A woman not in the age range of 15 and 49 years, had vaginal bleeding not due to abortion and refused to give her consent to participate in the study.

### Sample size

The study focused on a total of 420 individuals within the study area. They included all women with post-abortion care.

### Sample size estimation

$$n = \frac{Z^2 pq}{d^2}$$

n = the desired sample size

z = the standard normal deviation 1.96 or reliability coefficient, where  $\alpha = 0.05$

Total admission N, for all abortion in 2010 was 4172. Of this figure, n 1764 was induced abortion.

$p = n/N = 0.42$ ,  $q = 1 - p = 0.58$ , d = degree of accuracy desired at 0.05

So  $p = 42\% = 0.42$  but  $q = 1 - p = 1 - 0.42 = 0.58$  and  $d = 0.05$

$$n = Z^2 pq$$

$$n = \frac{(1.96)^2 (0.42) (0.58)}{(0.05)^2}$$

$$n \approx 374$$

10% of non respondent effect was used to comprehend the sample size, thus  $10/100 * 374 = 37.4$ . The initial sample size of 411.4 was rounded up to **420**, the sample size of respondents of women with induced abortion and the confidence interval of 95% were employed in the study (Source: KATH records). The month, July 2011, was used for the collection of data.

### Sampling technique

Systematic sampling technique was used for selection of samples for the study. From a population total of 4172 (N) individuals, 420 were identified as sample size, n. The total number of the population, N, was divided by the sample size, n. This gave the sampling fraction or interval, k; k was then used as the constant difference between subjects. Thus for a population of 4172 and a sample of 420,  $k = 4172/420 = 9.93 \approx 10$ . The population was put into a sequential order, ensuring the attribute being studied was randomly distributed. Thus, for any selected random number, x, between 1 and 10, the first sampled person is the x-th then every kth person. For instance, if k was 10 and x was 7, the 7th person, then the 17th, then the 27th and so on selected was for the study. *In brief*, select every nth person, starting with a random one.

### Data collection techniques and tools

Patients presenting to KATH with abortion were approached and asked to participate after explaining the purpose of the study to them. After they had

given their consent, the questionnaire was administered to them each day. Interview guide was used for the interview.

Dummy tables were used to collect secondary data from the facility. Interviews were conducted in KATH by female field health workers using a four-part questionnaire. Also, the interviews were conducted in their native languages, in order to ensure that the questions were fully understood by the clients. The first part of the questionnaire was on their demographic, household and socio-economic information. The second part was administered to women aged 15-49, obtained information on fertility, all the pregnancies each woman had experienced, as well as details about contraceptive use and pregnancy intention. The third part was assessment of knowledge on abortion laws and accessibility of safe abortion services. The fourth part was administered using a telephone interview to those who induced abortions from the first to almost the third month after their discharge from the hospital.

### **Pre-testing and Study Protocol**

In all, four field assistants and one assistant investigator were recruited for the data collection exercise. They were given one week training on how to conduct a successful field interview. They were briefed on the objectives and the nature of the research. Since the interview was mostly conducted in the local languages, an agreed translation of the various questions, concepts and common terminology in the local languages was arrived at to ensure uniformity. In order to ensure that questions in the questionnaire were meaningful and easily understood by respondents, a pre-testing of the tool was conducted at Sunyani Regional Hospital.

The questionnaires were also pretested on women in age group (15-49) in KATH gynaecology ward A-3 (The study area). Fifteen women were chosen for the study. This was done to identify and correct inconsistency and also assess the level of understanding of the people with regards to the questionnaires. The necessary corrections and rephrasing of questions was done to give clearer meaning and understanding to the respondents.

Women with incomplete abortion (either spontaneous or induced) were usually admitted to the ward and stabilized after which they were sent to the theatre for evacuation of the remaining products of conception. They were put on antibiotics and when clinically stable, discharged home.

When they have had the evacuation of the uterus and stable (usually < 6 hours), they were approached and the study aims explained to them and their consent sought. Those who consented and

met the other inclusion criteria were recruited. The questionnaire was administered by the four trained research assistants.

These women were counselled in the ward and offered contraception before discharged home by the trained FP nurses in the ward - this is the Department of Obstetrics and Gynaecology of KATH normal protocol. After discharge, the patients who induced the abortion were contacted by phone and the enquiries about their use or non-use of contraception asked using the fourth part of questionnaire. The responses were written on to the questionnaire which was appropriately labeled with the same serial numbers as earlier used.

### **Study variables**

The study variables were the independent variables (demographic characteristics and intermediate or family planning indicators) and the dependant variable (contraceptive uptake). The background variables: Age, sex, level of education, religious background, ethnic background, marital status and the residence. The intermediate variables or family planning indicators: sexual activities, partners influence, accessibility, knowledge of family planning, socio-cultural beliefs and availability of service. The dependant variable, contraception uptake (Table 1).

### **Data handling**

To check for accuracy and completeness of data and ensure quality, the questionnaire were numbered serially. The completed questionnaires were checked thoroughly and double entry data was done on a computer on a daily basis by two data clerks using SPSS software. Data cleaning and verification was done on a regular basis and back-up copies were kept by the Principal Investigator and a final copy kept at the facility. Qualitative data were transcribed immediately after each session. Focus group discussion data were summarised at each venue at the end of each session. Further detailed analysis and report writing was undertaken by the Research Team over one week period. The principal investigator would keep all the data in a secure cabinet in his office for at least three years.

### **Data analysis**

A chi-square analysis model was used to determine the relationship between factors influencing contraceptive uptake among women with induced abortion. Logistic regression analysis was then used

**Table 1:** Study Variable

Variable	Operational definitions of study variables	Scale of measurement	Indicator	Objective Achieved
Age	Age: number of completed years of the respondent at the of sampling	Ordinal	Age in completed years	1
Marital status	Marital status: whether the respondent is married or not, or divorced	Nominal	Married or not	1
Employment	the work or job of the respondent at the time of study	Nominal	Employed or not	1
Level of education	Educational level: the highest educational level the respondent has attained at the time of the study	Nominal	Highest Level of education attained	1
Socio-cultural norms	Socio-cultural influence on respondent's decision on contraceptive uptake	Nominal	Partner's influence	2
Contraceptive prevalence:	Ever used contraceptive	Nominal	women who had once used contraceptives	4
Reasons for not using contraceptives	Perception category of the respondents for not using contraceptive	Nominal	Reasons for non use	2
Availability of FP services contraception	Right to Choice	Nominal	Right to choice	3
Contraceptive uptake	Current users	Nominal	Unmet need	4

to estimate odds ratios (ORs) with 95% confidence intervals (CIs) and ( $p < 0.05$ ) significant levels.

### Ethical consideration

The study protocol was submitted to the Committee on Human Research, Publications and Ethics (CHRPE) at KATH, for ethical clearance before embarking on the study. Written informed consent for the interview was obtained from respondents. All information collected remained confidential and used for the purposes of the study only. Signed or thumb-printed consent forms were kept separately from completed questionnaires. The Metropolitan Health Administration (MHA) and the Komfo Anokye Teaching hospital (KATH) administrations provided the administrative clearance.

Ethical approval was also obtained from the Committee on Human Research Publications and Ethics (CHRPE), Director of Health Services KATH, gynecological ward and A3 team C leader Dr. R. E. Larsen Reindorf.

### Assumptions

The following assumptions were made:

Since KATH is a tertiary referral centre, and most complicated cases were referred there, it was assumed that:

- The sample population is a representative of Kumasi metropolis population of women with induced abortion.
- All the responses obtained from the respondents were true and accurate. And that in the course of the study, there were no sudden changes in the population profile. Thus;
  - The respondents were truthful with their responses.
  - All the quality control measures were strictly adhered to by the interviewers and other research assistants.
  - The sampled population was a representative of the study population.

### Limitations of the study

The study was conducted within a period of three months, from June to August and this was not long enough to permit an in-depth evaluation of the variables to be studied and measured.

- Some of the detailed information required about their family planning needs might have been difficult to recollect from long-term memory, making some

respondents not to have given the true picture of the situation. The data were collected by means of sampling instead of a complete census. The results of the sample survey might differ from the complete census which could give more accurate picture of the characteristics of the population instead of using a few respondents to generalise for the entire population.

- All the possible confounders might not be known from this study.

### **Delimitations**

This study focused on Factors Influencing Contraceptive Uptake among Women with Induced Abortion presenting at KATH. The findings of the study were limited to the hospital and not generalisable to other part of the entire population. Also, it was only restricted to women who presented to KATH and therefore did not account for those who sought care outside the hospital.

### **Reliability and validity of the study**

Data of the interview were analyzed using SPSS version 16. Proportions, frequencies, percentages were reported on the study and a pie chart was used for an illustration. For the qualitative data, all the interviews were recorded and transcribed. All transcriptions were coded and classified according to themes and then analyzed manually. As part of the quality control measures to ensure quality and reliable information, the following steps were taken to handle the data:

- Data gathered were checked to ascertain its completeness and accuracy.
- The questionnaires were numbered before storage.
- The place and the person responsible for storing the data were also determined.
- The data was stored on a computer with password protection and backups.

## **RESULTS/ STUDY FINDINGS**

The findings on the study of factors influencing contraceptive uptake among women with induced abortion presenting at KATH were dealt with in this chapter. The respondents were clients who reported with the history of abortion at the hospital.

### **Results**

The findings were therefore presented according to

the objectives of the study and were depicted as tables and charts.

### **Background of respondents (demographic characteristics)**

The study reported that less than a half (182 (43.3%)) of those interviewed were married and 362 (86.2 %) were Christians whilst 56 (13.3%) were Muslims. The traditionalist were 2 representing 0.5 percent . There were no Atheist (table 2).

With regard to education, majority of the respondents 270 (64.3%) had primary education. On the contrary, 52 (12.4%) had no formal education.

Among the respondents who were employed, majority 176 (41.9%) were traders whilst 95 (22.6%) were artisans, 58 (13.8%) were unemployed and 38 (9.0%) were students. Farmers and civil or public servants formed the minority with 21 (5.0%) and 32 (7.6%) respectively.

From the category of abortion considered in this study, “induced abortion” had the higher recording of 252 (60.0%) and the lesser recording was 168 (40%) representing “not induced abortion” (miscarriage) group.

In terms of socio-economic status, 83 (19.8%) of the respondents were very or core poor in the society, 191 (45.5%) of the respondents were poor whilst 125 (29.8%) were middle class in the society. However, only 21 (5.0%) respondents were rich. In all, about 65.3% of the respondents did not have the financial power to seek somewhat safe abortion in the society.

From Table 3, among the 420 respondents who were interviewed, majority 153 (36.5%) sought information from health workers. One hundred and eleven (26.5%) and 35 (8.4)% of the respondents sought information from the media and relatives respectively. Only (2.9%) of the respondents sought information from books. On the contrary, 108 (25.8%) sought information from friends.

It was found that, 60.2% of the respondents did not plan the index pregnancy and never used any contraceptive. This is a reflection of the high rates of termination of unintended pregnancies due to non-use (unmet need) of contraceptive. On the contrary, only 39.8% of the respondents planned their index pregnancies.

Most of the respondent's partners, 404 (96.2%) were not on contraceptive or did not use contraceptive before the index pregnancy and about 88.3% did not also allow their female partners to use contraceptives. Only a few respondents 140 (33.3%) had ever used modern contraceptives to prevent unwanted pregnancies. However, majority of the respondents 339 (80.7%) had the desire to be on contraceptives even though some of the

**Table 2:** Demographic Characteristics -Total number of respondents (**N= 420**)

<b>VARIABLE</b>	<b>TOTAL</b>	<b>PERCENT</b>
<b>Age group</b>		
15-19	62	10.7
20-24	127	30.2
25-29	107	25.5
30-34	48	11.4
35-39	45	10.7
40-44	26	6.2
>=45	5	1.2
<b>Marital status</b>		
Married	182	43.3
Single	137	32.6
divorced/separated	8	1.9
Cohabiting	93	22.1
<b>Religion</b>		
Christian	362	86.2
Islam	56	13.4
Traditionalist	2	0.5
Atheist		
<b>Education</b>		
None	52	12.4
Primary	270	64.3
Secondary	67	16.0
Tertiary	31	7.4
<b>Occupation</b>		
Trader	176	41.9
Civil/Public servant	32	7.6
Artisan	95	22.6
Farmer	21	5
Student	38	9
Unemployed	58	13.9
<b>Socio-economic status</b>		
core poor	83	19.8
Poor	191	45.5
middle class	125	29.8
Rich	21	5.0
Very rich		

respondents had never used any form of modern contraceptive.

Out of the 420 respondents, 64.8% had no knowledge or were not aware of safe abortion services whereas only 35.2% had knowledge or were aware of safe abortion services.

Three hundred and ninety-five (94.0%) decided to seek termination from the hospital whilst 25 (6.0%) of the respondents decided that they would seek termination elsewhere other than the hospital in case they became pregnant and were not ready to give birth.

**Table 3:** Knowledge on FP and Social Influence on women in decision-making

VARIABLE	TOTAL	PERCENT
<b>Source of information on FP</b>		
Friends	108	25.8
Relatives	35	8.4
media (radio/tv)	111	26.5
Books	12	2.9
Health worker	153	36.5
<b>Did you plan this index pregnancy</b>		
Yes	167	39.8
No	253	60.2
<b>Does your partner use contraceptive</b>		
Yes	16	3.8
No	404	96.2
<b>Does your partner allow you to use contraceptive</b>		
Yes	49	11.7
No	371	88.3
<b>Have you ever used modern contraceptive</b>		
Yes		
No	140	33.3
	280	66.7
<b>Do you want to use contraceptive now</b>		
Yes		
No	339	80.7
<b>Knowledge on safe abortion services</b>		
Yes	81	19.3
No		
<b>Would you seek termination in a hospital</b>		
Yes	148	35.2
No	272	64.8
	395	94.0
	25	6.0

**Table 4:** Age \*Category pregnancy Cross-tabulation

Age	Category of Index Pregnancy N (%)		Total N
	Induced	Not induced	
15-19	57 (91.94)	5 (8.06)	62
20-24	82 (64.57)	45 (35.43)	127
25-29	65 (60.75)	42 (39.25)	107
30-34	16 (33.33)	32 (66.67)	48
35-39	15 (33.33)	30 (66.67)	45
40-44	13 (50.00)	13 (50.00)	26
>=45	4 (80.0)	1 (20.00)	5
<b>Total</b>	<b>252 (60.00)</b>	<b>168 (40.00)</b>	<b>420</b>

From Table 4: Out of the 420 respondents interviewed, majority of the women 127 (30.2%) involved in induced abortion were within 20 to 24 years with a mean age of 22 and a standard deviation of 1.48. The least, 5 (1.2%) representing those were 45 and above. Furthermore, 107 (25.5%) were within the age of 25-29. 62 (14.8%) were in the 15-19 years, 48 (11.4%) were in 30-34 age group, 45 (10.7%) were in 35-39 age group and 26 (6.2%)

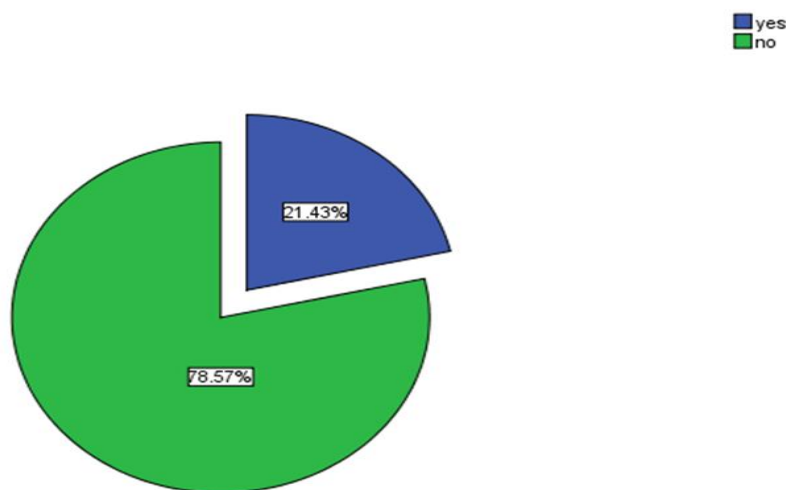
were in the 40-44 age group. In all, 252 (60%) of the respondents were involved in induced abortion whilst 168 (40%) had spontaneous abortion (miscarriage).

From the table 5, most of the respondents from the ages of 20-24, had never used contraceptives or were on any contraceptives as at the time of the study thus 27 out of 127 from 20-24 used contraceptives. Also, 13 out of 62, 41 out of



**Table 5:** Age \* Contraceptive Uptake Cross-tabulation

Age	Contraceptive Uptake N (%)		Total N
	Use	Non-use	
15-19	13 (20.97)	49 (79.03)	62
20-24	27 (21.26)	100 (78.74)	127
25-29	41 (38.32)	66 (61.68)	107
30-34	25 (52.08)	23 (47.92)	48
35-39	21 (46.67)	24 (53.33)	45
40-44	9 (34.62)	17 (65.38)	26
>=45	4 (80.00)	1 (20.00)	5
<b>Total</b>	<b>252 (33.33)</b>	<b>168 (66.67)</b>	<b>420</b>

**Figure 3:** Post-abortion contraceptive uptake

107, 25 out of 48, 21 out of 45 and 9 out of 26 were from 15-19, 25-29, 30-34, 35-39 and 40-44 years respectively. Only 1 out of 4 from 45 years and above was not on contraceptives.

#### **Post-abortion contraceptive uptake**

Among the 252 respondents who had induced abortion, only 54 (21.4%) took up contraceptives whilst the majority, 198 (78.6%) were still not using contraceptive even though they wanted to prevent unwanted pregnancies (Figure 3).

#### **Follow-up assessment on Post-abortion Contraceptive Uptake among women involved in Induced Abortion**

Moreover, out of 54 respondents who used contraceptives, 47 (87.03%) used short term contraceptive methods such as pills and injectables whereas 7.4% and 5.7% used IUD and Jadelle

respectively. Reasons gathered from the respondents showed that 109 (54.8%) were afraid of side effects of contraceptive use. About 17.1% and 5.5% of the respondents claimed that the use of the contraceptive was expensive and ungodly respectively (Table 6).

However, 22.6% of respondents wanted a child so they did not use any contraceptives. Almost everybody, 98.0% was given counseling by the health provider before discharge home. Among the 54 respondents who were given contraceptives at the facility, 66.7% claimed they were methods of their choice whilst 33.3% claimed the methods were recommended to them. Majority, 208 (82.5%) of the respondents were somewhat close to a family planning facility and were either walking, riding a bicycle/motor or taking a trotro/taxi with 137 (80.6%) paying between 0.50p-GHC 1.00 and only 19.4% paying above GHC 1.00.

The Table 7 depicts the type of relationship among respondents with induced abortion. Out of 252, only 26 were married in addition to 89 cohabiting with their partners. Majority 130 were single. However,

**Table 6:** Follow-up assessment on Post-abortion Contraceptive Uptake among women involved in Induced Abortion

VARIABLE	FREQUENCY	PERCENT
<b>Methods used</b>		
Injectables	27	50.0
IUD	4	7.4
Jadelle	3	5.7
Pills	20	37.03
<b>Reasons for non-use</b>		
Fear of side effects	109	54.8
Want a child	45	22.6
Very expensive	34	17.1
It is ungodly	11	5.5
<b>Were you given counselling by health worker</b>		
Yes	247	98.0
No	5	2.0
<b>Was contraceptive of your choice available at the facility</b>		
Yes	25	46.3
No	29	53.7
<b>Did you have the right to choice</b>		
Yes	16	66.7
No	8	33.3
<b>Are you close to FP facility</b>		
Yes	148	35.2
No	272	64.8
<b>How do you get there</b>		
Walking distance	85	33.7
Riding a bicycle/motor	8	3.2
Need to take trotro/taxi	159	63.1
<b>Cost of transportation</b>		
From 0.50p - GHC 1.00	137	80.6
Above GHC 1.00	33	19.4

**Table 7:** Marital Status \* Category of Index Pregnancy Cross tabulation

Marital Status	Category of index pregnancy		Total
	Induced	Not induced	
<b>Married</b>	26	156	182
<b>Single</b>	130	7	137
<b>Divorced</b>	7	1	8
<b>Cohabiting</b>	89	4	93
<b>Total</b>	<b>252</b>	<b>168</b>	<b>420</b>

7 were divorced as at the time of the study.

The Table 8 shows the relationship between the background of respondents and their category of contraceptive uptake. The method of contraceptive used by respondents ( $p=0.000$ ), the right of

respondents to choice ( $p=0.000$ ), their means of transportation ( $p=0.015$ ), the cost of transportation ( $p=0.009$ ), partner's approval to respondent's use of contraceptive and the desire of respondents to use contraceptive ( $p=0.018$ ) were significantly related to

**Table 8:** Relationship between Background Characteristics and Post-Abortion Contraceptive Uptake among Women with Induced Abortion Presenting At KATH

Variable	Post-abortion Contraceptive Uptake N (%)	Non-use N (%)	Chi square * $\chi^2$ - test value	Odds Ratio	P value
<b>Methods used</b>					
- Injectables	27	198			
- IUD	4	0	*2.252		
- Jadelle	3	0		---	0.000
- Pills	20	0			
<b>Reasons for non-use</b>					
Fear of side effects	0	109			
Want a child	1	44	*3.440		
Very expensive	0	34		---	0.329
It is ungodly	0	11			
<b>Partner's use of contraceptive</b>					
- Yes	1	7	*0.520		0.471
- No	82	161			
<b>Partner's approval to contraceptive use</b>					
- Yes	14	14	*7.786		
- No	70	154		---	0.020
<b>Respondents desire to use contraceptive</b>					
- Yes			*5.575		
- No	73	130			0.018
<b>Counselling given by health provider</b>					
- Yes			*1.391		
- No	54	0		1.391	0.238
<b>Availability of contraceptive</b>					
- Yes	193	5			
- No					
<b>Right to choice</b>					
- Yes	25	0	*0.878		
- Yes	28	1		0.879	0.329
- No					
<b>Client closeness to FP facility</b>					
- Yes	16	8			0.000
- No	0	6			
<b>Means of transportation</b>					
- Walking distance			*2.086		
- Ride bicycle/motor	41	167			0.149
- Take trotro/taxi	13	31			
<b>Cost of transportation</b>					
- Between 0.50p- GHC1.00					
- Above GHC 1.00	18	67	*8.371		0.015
	5	3			
	31	128			
	25	112	*6.851		
	13	20			0.009

\* =  $\chi^2$  - test value

post-abortion contraceptive uptake.

However, reasons for non-use, partner's use of contraceptives, counselling given by health worker, distance of clients to FP facility, availability of contraceptive at the facility and the right of respondents to choice did not have any significant influence; reasons for non-use ( $p=0.329$ ), partner's use of contraceptives ( $p=0.471$ ), counselling given by health worker ( $p=0.238$ ), distance of clients to FP facility ( $p=0.149$ ) and availability of contraceptive at the facility ( $p=0.349$ ) on post-abortion contraceptive uptake.

The table 8 shows the relationship between the intentions of respondents about their unintended pregnancy and their category of abortion performed. The plan of the index pregnancy ( $p=0.000$ ) and whether they intentionally induced the abortion ( $p=0.000$ ) were significantly related to the category of abortion. On the contrary, their sources of information about how to get rid of an unwanted pregnancy did not have any significant influence ( $p=0.373$ ) on the category of abortion, i.e. either induced or not induced.

### Hypothesis Testing

A woman who has had induced abortion and has been counselled on contraceptive use will use contraceptive. Ideally those who induce abortion are supposed to be on contraceptives but the outcome was not so as hypothesised in this study.

Helping women to continue contraception safely and effectively is desirable both from an ethical and public health perspective because it reduces unintended pregnancies, self-induced abortion, maternal mortality and morbidity.

## DISCUSSION OF RESULTS

This chapter sought to explore factors influencing contraceptive uptake among women with induced abortion experiences. In line with results from chapter four, it was suspected that prior to their abortions the women did not use contraception leading to unintended pregnancies which they later aborted or attempted to abort. Therefore, it was expected that the women would be on contraceptives after the abortion to prevent further pregnancies.

### Demographic characteristics of respondents

Post-abortion contraceptive uptake could go a long way to reduce maternal mortality particularly, among

women with unsafe abortion. Majority of the respondents irrespective of their ages were involved with self-induced abortion and contraceptive non-use. However, the age group 20-24 with the mean age of 22 had the highest recording of 100 out of 127 for contraceptive non-use and 45-49 age group had the least recording of 1 out of 4.

Also in sub-Saharan Africa, it was estimated that 14 million unwanted pregnancies occur every year with almost half occurring among women aged 15-24 years. The younger age groups were likely to be associated with single/cohabiting status, lower socio-economic status, low education level and high socio-cultural influence (partner's influence) on contraceptive uptake which increased the likelihood to induced abortions. A Ghanaian woman may not be willing about carrying a pregnancy to full term because her partner denies responsibility, she is not ready to marry or her family perceives childbearing outside of marriage as unacceptable. For instance, Ghanaian cultural setting/society tends to disapprove of a mother's sexual behavior if both she and her daughter are nursing infants at the same time.

Of all the 420 respondents interviewed more than half had poor knowledge on reproductive health. Even though 111 had information from the media, some still resorted to induced abortion. That is 108 sought information from friends and the rest from other places.

Hogerzeil has argued that a right informed application of the essential medicine concept would demand that particular vulnerable groups are considered. And indeed young people have not been given the necessary attention by policy makers and service providers as said by Sundby, 2006.

From this study it was found that poor quality of contraceptive services including lack of information was a reason for low contraceptive uptake leading to unintended pregnancies, some of which ended in abortion. As unmarried adolescents are not supposed to be sexually active on the basis of cultural norms/traditions, some of the respondents also used other abortifacient before coming to the hospital.

The cost of abortion extend well beyond those of the health system, societies bear the economic cost of lower productivity caused by long term disability and mortality.

### Unmet FP need among women with induced abortion

It was found that, out of 252, only 26 were married in addition to 89 cohabiting with their partners who

intentionally induced abortion were not on contraceptives due to the fact that the respondents were not ready or did not plan the index pregnancy.

Among those who planned the index pregnancy, some could not adequately use the contraceptives that were at their disposal. And as stipulated in literature, mere increases in prevalence of contraceptive use need not necessarily mean success in avoiding unwanted or mistimed pregnancies.

There were a large number of these women who wished to postpone pregnancy and also desired to delay childbearing for economic reasons. Yet contraceptive use as a means of spacing or limiting births remained very low.

### **Reasons for Contraceptive use or non-use among women with induced abortion**

With regards to socio-cultural issues, 404 respondents' partners did not use contraceptives prior to the index pregnancy and those 16 who used contraceptives did not have any significant influence on the respondents' contraceptive uptake. Barriers to contraceptive use are often a result of gender inequality that results in poor communication about family planning between partners, social prescripts which prohibit sexual behavior among a certain segment of the population, and poor service delivery. The output, unintended pregnancies, ended in induced abortions.

Majority, 339 of the respondents, had the desire to use contraceptives nevertheless, only 54 among 252 with induced abortion as against 198 used contraceptives with or without their partners approval.

### **Right to Choice (intrinsic variability)**

Also, inadequate availability of contraceptives and quality counselling at the facility did not enhance contraceptive uptake among respondents. Thus clients did not have the right to choice. The study also found that women were significantly more likely to accept a method if they had a range of contraceptive options to offer at sites to promote informed choice (Glasier, 2006). The availability of contraceptive counselling immediately after abortion was an important factor in women's acceptance of a method.

If contraception were accessible, maternal mortality would decline by an estimated 25-35% (Bongaarts J and Westoff C.F, 2008). Thus, PAC would interrupt the cycle of repeat unplanned pregnancy, abortion and complications leading to maternal mortality.

Also, most successful contraceptive method is likely to be the one that the women or partner chooses rather than the one the clinician chooses for them.

### **Contraceptive availability**

The large numbers of unplanned and unwanted pregnancies in the world are not due solely to inadequate contraceptive methods. It is surely true that substandard health services, lack of public education, inadequate provider training, misunderstandings about risks and poor understanding of how people calculate risk, accessibility, and social, cultural, and religious influences on family planning behavior, all can play a role in whether contraception is used or not.

Among those who used contraceptives, out of 54 respondents 47 (87.03%) used short term contraceptive methods such as pills and injectables whereas 7.4% and 5.7% used IUD and Jadelle respectively.

From literature, long term methods have a big impact on unintended pregnancy particularly among the adolescent since fertility returns four to six weeks after abortion and FP has a role to play before a woman becomes pregnant and after abortion or miscarriage.

Again, most of the respondents were not much closer to FP centers and would patronise taxi/trotro at prices from 0.50p and GHC 1. Since those involved were not economically sound and unmarried with virtually low education these 'high' prices deterred them from going to the FP centers for just contraceptives which they would pay at a fee. Quiet a number of them claimed they could walk to the FP centers whilst a few would take bicycles/motor bikes.

## **CONCLUSIONS AND RECOMMENDATIONS**

Problems identified were strong socio-cultural and economical factors, the resulting legal and health policies and subsequent inadequate reproductive health knowledge about the right and consistent use of contraceptives among women. These were some of the major causes of low post-abortion contraceptive uptake leading to unplanned pregnancies. These factors require intervention from health professionals, social groups and government policy makers.

### **Conclusions**

A major challenge to addressing unsafe abortion in

Africa is the lack of commitment on the part of governments to promote, protect and respect women's reproductive rights, including the right to access safe and legal abortion services. This lack of political will affect the availability, accessibility and quality of abortion-related care.

In order to reduce the incidence of induced abortion contributing to maternal mortality in Ghana, there is the need to: (1) educate the public about the major social and public health burdens of unintended pregnancy; and (2) stimulate a comprehensive set of activities at the national and local levels to reduce such pregnancies.

This requires a thoughtful and deliberate response, a pivotal part of which must be the increased, careful and consistent use of some form of contraception or for the highly motivated and the exercise of periodic abstinence. Thus, greater knowledge about reproductive health and in that context, contraception, is essential for providers, consumers and the public at large, if fully informed, free and appropriate choices are to be made about fertility regulation and sexuality.

The incidence of unsafe abortion generally reflects the magnitude of unwanted (unplanned) pregnancies in a particular community. Hence, one of the best ways of effectively minimizing unsafe abortion is to ensure women have easy access to safe, effective and acceptable contraceptive information and services, backed up by policies that promote social justice and equality, enhanced status of women, as well as legislation that decriminalises abortion.

From the data, very few of the respondents had ever used contraceptives. There were misconceptions about the use of modern contraceptives and sustained education must be mounted to reverse this. Data indicated that there was low over all contraceptive use of 17% in Ghana (GDHS, 2008) with high unmet FP needs of 34%.

There were negative reactions from the partners and society towards pregnant adolescent women. Partners might have been unhappy, indifferent, or surprised about the pregnancies while others refused responsibility. Most parents also were said to be angry with their pregnant daughters these factors coupled with socioeconomic factors of the women, the partners and parents influenced the decision made in seeking abortion.

The women were found to have low level of sex education as well as poor knowledge of reproductive health issues. Sources of information on family planning particularly PAC appeared to be very much limited. The core components of PAC comprising: treatment of incomplete abortion, contraceptive counselling and services and community empowerment through community mobilization, were totally not rendered to post-abortion provided clients.

Moreover, the extent of male use of family planning and the nature of men's role in family planning must be examined carefully and critically for involving men actively in family planning. Policies that aim to increase male involvement must be sensitive to cultural values, apply to a decentralized government approach toward information and supplies, include adequate political will and consider the costs and benefits of changing values. A policy, compatible to traditional values should stress the value of male individuals contributing as much as possible for their own and others' welfare.

Community participation is considered important in order to create a feeling of mutual support. Therefore, a sizeable investment will be required for mass distribution of contraceptive information.

### Recommendations

The evidence suggested that health service providers should intensify awareness about the use of contraception, highlight the dangers of induced and repetitive abortions, through health education. Thus high rates of unprotected sex would be a threat to achieving the proposed Millennium development goals. In view of this, the following recommendations are suggested:

Health system administrators and policy makers' first need to learn about and acknowledge the magnitude of the problem of unsafe abortion in the country due to contraceptive non-use to enable them plan ahead to provide the care women need (WHO, 2007).

Also, there should be strong health information system to:

1. Improve overall health status and reduce inequalities in health outcomes of people living in Ghana particularly, women.
2. Work in collaboration with all partners in the health sector to ensure that every individual, household and community is able to access quality health delivery.
3. Increase geographical and financial access to health service.

All health workers must acquaint themselves with the legal code for induced abortion so they could impact knowledge to women concerning their legal right when requesting for abortion. There should be education on the fatal consequences of abortion complications.

Public Health advocates can speak out about the need to provide post-abortion care, citing local statistics on women's deaths and the cost to local hospitals.

Public Health nurses should organized health education programmes to offer family life education, sex education and contraceptive uptake to both men and women at market places, churches, mosque

and schools. Schools are viewed as an ideal place for educating youth about the problems of high fertility and about use of family planning methods, such as the condom. Comic books on how to use condoms are suggested as a good source.

Religious organizations should be used to educate people about responsible parenthood and to minimize barriers to use of modern contraception.

Associations should be encouraged to invite health workers and family planning advisors to educate their members on the importance, durability and reliability of using contraceptive.

Mass media campaign can alert the public to the problems of unsafe abortion. Staff at the maternal and child Health should give talk on abortion and its complications in their clinics in local dialect to enlighten the women that abortion is not the best way for family.

Family Planning counselling services should be affordable to women treated for abortion. Women particularly, young people should be given the necessary attention on their reproductive rights by policymakers and service providers.

Men must also be involved actively in contraceptive use. Also they must be involved in health issues arising from pregnancy and delivery to have effective result that is preventing abortion. Contraceptive services must be made accessible and affordable for both men and women to patronise them.

Moreover, the Ministry of Health, MOH should:

1. Reorganize service so that counselling and methods are available in the same room as emergency treatment
2. Develop protocols for provision of post-abortion contraception
3. Orient staff (all levels) about the program
4. Train service delivery team
5. Use research results to support improvements in PAC and FP services

### Concluding Remarks

1. Contraception is an essential element of PAC
2. PAC clients may or may not wish to use FP immediately
3. The desire to delay, space and end childbirth are reasons giving for having an induced abortion suggesting unmet need for FP
4. Contraceptives could be recommended for use immediately post-abortion provided clients are properly counselled and screened for conditions appropriate for usage.
5. There is the need to match findings from contraceptive and induced abortion studies to develop strategies to address both.

### DEDICATION

I dedicate this research to my family, I say God bless you all for your support, sacrifice, commitments and contributions.

To my dear, whose love, care and understanding enabled me to undergo this course successfully despite all the difficulties.

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## ABBREVIATIONS/ACRONYMS

**CAC:** Comprehensive Abortion Care

**CPR:** Contraception Prevalence Rate

**FP:** Family Planning

**GDHS:** Ghana Demographic and Health Survey

**KATH:** Komfo Anokye Teaching Hospital

**MDG 5:** Millennium Development Goal 5: Reducing Maternal Mortality

**PAC:** Post Abortion Care

**SIA:** Self Induced Abortion

**STIs:** Sexually Transmitted Infections

**TFR:** Total Fertility Rate