REVIEW ARTICLE

TRENDS AND CHALLENGERS OF BURDEN OF FERTILITY ON WOMEN'S HEALTH

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ABSTRACT

Fertility is defined as the ability to conceive and bear children through normal sexual activity. According to estimates, a fertile woman can bear average 17 pregnancies from menarche to menopause while 10% of cohabiting couples have become sub fertile due to problems like malnutrition or disease, especially sexually transmitted infections. The world reached its one billion population around the year 1800 and 7 billion in 2011 with projections to reach 20 billion by 2100. Due to varying levels of fertility control and increase in death rates, population growth rate in the world has declined in 2-1.5 % per year during the past 30 years. An induced abortion averts about 0.4 births, while about 0.8 births are averted by using moderately effective contraceptives. Although the fertility rates are declining even across the developing world, the world's population is growing faster due to increased number of sexually active females in the reproductive age, resulted from high fertility rates existed in the past. Almost 97% of this growth was in developing countries due to their high birth rates, high proportion of sexually active population and their less use of modern contraceptives. However, as a result of fast aging, death rate would exceed birth rate resulting negative population growth as seen in many of the developed countries. According to estimates of the World Health Organization in 2003, a woman dies every 8 minutes due to complications arising from unsafe abortions, resulting death in 68,000 women accounting for about 13% of maternal mortalities and 5 million with long-term health complications. Even by 2017, approximately 810 women died from *preventable causes* related to pregnancy and childbirth every day. Between 2000 and 2017, the Maternal Mortality Ratio (MMR, number of maternal deaths per 100,000 live births) dropped by about 38% worldwide. Out of all maternal deaths, 94% occur in low and middle-income countries. Young adolescents (ages 10-14) face a higher risk of complications and death as a result of pregnancy than other women in the same age category.

INTRODUCTION

Fertility is defined as the ability to conceive and bear children or the ability to become pregnant through normal sexual activity. Fertility is one of the major characteristics which have got changed over the time at different levels across the globe with exceptions in few settings. Further, it has become the target for reducing population. Since the mortality has come down to a very low level due to improvement in socio economic and other related factors in many of the countries worldwide, fertility is the reducible source of increasing population (Sing *et al*. 1985).

Measurements of fertility: Fertility is measured by using different indicators according to the differences in conditions being measured.

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The *Total Fertility Rate (TFR)* is the number of children who would be born per woman if she were to pass through the childbearing years, bearing children according to a current schedule of age-specific fertility rates. The number of births occurring during a given year or reference period per 1,000 women of reproductive age classified in single-or five-year age group is called *Age Specific Fertility Rate (ASFR)*. Further; the *Wanted Fertility Rate (WFR)* describes the number of children who would be born per woman if she was to pass through the reproductive years bearing children according to a current schedule of age-specific fertility rates if only "desired" or "wanted" births occurred. *The General Fertility Rate (GFR)* describes the number of live births per 1000 women aged 15-49 years in a given year (Jackson 2015).

Determinants of Fertility: Determinants of fertility are the factors which contribute for changing the pattern of fertility in a particular country or in the world as a whole. These determinants represent the mechanisms through which the change of fertility has occurred. It can be categorized as

proximate and background determinants. Proximate determinants are the factors that directly affect the changing pattern of fertility in a population which includes biological and behavioral factors. According to the classification by Kingsley Davis and Judith Blake who did initial description of different aspects of fertility, proximate determinants are classified into eight factors grouped in three broad categories. The first group consists of exposure factors which include proportion married/cohabiting. The second group consists of deliberate marital fertility control factors. Contraception and induced abortion are the determinants included in this group. The third group consists of natural marital fertility factors which has determinants as lactational infecundability, frequency of intercourse, sterility, spontaneous intrauterine mortality, duration of fertile period which depends on ages at menarche and menopause. Among these; marriage or cohabitation, contraception, induced abortion and postpartum infecundability have been identifies as four main proximate determinants (Bongaarts 1978).

The proportion of females who are in formal marriages and consensual unions contributes greatly in changing the fertility pattern by subjecting themselves to sexual intercourse regularly resulting conception. Considered humans, females are generally fertile from menarche to menopause which extends from early teenage to late forties. Males remain fertile throughout the life although the number and the quality of sperms get reduced with age. Increase in the mean age at marriage for females reduces the duration of exposure to sexual intercourse and burden of child bearing. According to the estimates of demographers, a fertile woman can bear average of 17 pregnancies from menarche to menopause (15-50 years) which is very rarely achieved by women even in countries with very high fertility due to many other factors preventing women having that much of children. It has been estimated that marriage at 20 years prevents 3 births. Reduction of fertility has been contributed by infertile and subfecund status of 10% cohabiting couples due to problems like malnutrition or disease, especially sexually transmitted diseases (Bongaarts 2015).

Considered deliberate marital fertility control factors, practices like contraception and induced abortion have direct impact of reducing fertility which is mainly being operated within marriage. Effect of contraception on fertility regulation largely depends on the type of contraception whether modern or traditional and on the correct use of temporary methods. Generally, the effect of induced abortion is less than one birth because continuation of an unplanned pregnancy may be not necessary since 10% pregnancies end as spontaneous abortions while a considerable proportion ends as still births. Concurrently, one abortion prevents only the effect of one menstrual cycle. The woman becomes fertile sooner after an abortion than after a delivery. If she breast feeds, the duration to become fertile gets prolonged further. So she is subjected to many cycles if she gets an induced abortion, which she will not face if the pregnancy is continued. According to John Bongraats, an induced abortion averts about 0.4 births, while about 0.8 births are averted when moderately effective contraception is practiced (Bongaarts 2015). Considered natural marital fertility factors, return to fertility after a delivery depends on the pattern and the duration of breast feeding. According to Bongraats, the natural marital fertility is highest in the developed countries where women breast feed for relatively short duration or completely abstain from breast

feeding. Thus, the average period taken to become fertile is 3 months in developed countries compared to that of developing countries extends up to 18 months where mothers breast feed their children more than 2 years or up to the next conception. Further, a woman's period of fertility may differ naturally between menarche and menopause. A woman can conceive only within the fertile period which has been limited to approximately two days in the middle of the menstrual cycle around the time of ovulation. Further, the ovum and the sperm are viable only for two days. Even though a woman is fertile, the possibility of conception depends on the frequency of intercourse which can be limited due to temporary separation and illness (Bongaarts 2015).

The background determinants of fertility include social, cultural and economical variables. These background determinants play their role through proximate determinants. If we consider education as a background determinant, it increases the age at marriage of a woman, gives opportunity to get her behavior changed to use contraception, postpone child bearing and thereby reduces the fertility (Bongaarts 2015). During 1990s, economic growth and improvement in modern medicine in many parts of the world has lead to increased rate of child survival. Thereafter, socio economic status in families got improved; spending a lot on children's education and prolonging the period of child dependency. Thus having many children became an economical burden. This change was followed by increased female education and female employment as well. This increased the status of women giving them autonomy and the opportunity in decision making regarding childbearing. It has resulted in increasing the age at marriage, use of contraceptives and limiting the number of children in the family. Further, due to prominent changes in reproductive behavior in past few decades, much of fertility decline is now occurring in many regions of the developing world among women without education, as a result of increased contraceptive prevalence among illiterate or less educated women (Haub 2015).

Global population and Fertility trends: Fertility transition describes the point at which couples begin to deliberately limit the number of children women bear. Most Western & European societies, along with Canada and the United States, experienced this important change before the beginning of the 20th century. In the developing countries this phenomenon started after the Second World War (Jackson 2015). The population growth rate of a given country depends on two factors; natural population increase and migration. Natural increase is affected by two factors; the rates of mortality and fertility. When the birth rate resulted from fertility exceeds the death rate; the population increases. This is called natural population increase. However, the growth rate of the world population totally depends on the natural increase.

The world reached its population of one billion around the year 1800. It got doubled in 1930; after 130 years. It increased rapidly completing 3 billion in 1960, 4 billion 1974 and 5 billion in 1987, 6 billion in 1999 and 7 billion in 2011.The projection is that, it would reach 20 billion by 2100. However, actual change depends on the difference between rates of births and deaths, which may be changed due to rapid aging of the global population (Haupt *et al.* 2011). Initially before the industrial revolution, population growth was comparatively slow because both mortality and fertility were high. Later, the development of modern medical technology led to reduction in

death rates resulting rapid increase in world population. Since the reduction of birth rate is smaller than that of death rate, population continued to increase in many of the countries resulting annual growth rate of 3-4% in the developing world. Since 1960, reduction of birth rates was more significant in all developing countries except in Sub-Saharan Africa and Middle East in which total fertility rates remain high around five. Rates of fertility decline are different depending on their economic growth and human development. There, low income countries have the lowest reduction in birth rates. Comparatively, in high income countries with developed socio economic status, people tend to have smaller families due to reduced risk of premature deaths and reduced dependency of parents on their children on earning and elderly care. Further, gradually increased female literacy in many developing countries has contributed to increased employment opportunities for women, increase the age at marriage, more freedom in decision making & access to health services including modern family planning to have smaller families. Meantime, the expenditure for children's education aimed at improving quality of life is dramatically increased, with preference for smaller families. Above all, widespread availability and increased access to family planning has given the opportunity to plan their families for sexually active couples even in the rural setup (Haub 2015).

Meanwhile, increased socio economic status has led to reduced premature deaths and fast aging leading the death rate to overcome birth rate, resulting negative population growth as seen in many of the developed countries like Italy and Germany. Comparatively in low and middle-income countries, mortality trends have reversed dramatically due to higher mortality among older men mainly due to increase in cardiovascular diseases. Deaths among younger men has increased due to accidents, suicides, and murders which can be related to stress and substance abuse, increased unemployment, worsening living conditions, and greater economic uncertainty that have accompanied the transition. Percentage of deaths due to non communicable diseases is high (30%) in low and middle-income countries, compared to 13% in high income countries (Haupt *et al* 2011). Thus, due to varying levels of fertility control and increase in death rates, population growth rate in the world has declined in 2-1.5 % per year during the past 30 years. Thus, at the end of 20th century, 6 billion people were living on earth of which 84% living in developing countries. Over a billion of these 6 billion will be in the 15-24 year age category, the parents of the next generation and responsible for increasing the global population (Haub 2012). Although fertility rates are declining even across the developing world, the world's population is growing due to increased number of sexually active females in reproductive age, resulted from high fertility rates existed in the past. The number of annual births increased from 2,556,000,053 with growth rate of 18.9 in 1950 to 6,082,966,429 even with growth rate of 12.6 in 2000. Most of the developed countries and many developing countries have got their fertility reduced (USA: 2.06, India: 2.6). However there are many countries with fertility rates over 6 (Burundi, Somalia, and Uganda (United Nations 2019). World reached its 7 billion populations on October 31 2011; 12 years after becoming 6 billion. Almost 97% of this growth was in developing countries due to their high birth rates, high proportion of sexually active population and their less use of modern contraceptives. In developed countries population growth is low due to high death rates in old age and low birth rates due to the use of modern family

planning methods. Global birth rate was 20 births per 1,000 populations by 2010 with average number of children per women being about 2.5. Since the death rate was 8 per 1,000 population; annual growth rate is around 1.2% (Jackson 2015). According to the latest projections of Census Bureau, population growth will continue from 6 billion in 1999 to 9 billion by 2044, a 50% increase within 45 years (Haub 2015). Finally, the world will have nearly 20 billion by the year 2100 if this growth rate is to remain constant (Jackson 2015). According to the projections of the United Nations Population Division, the greatest percentage of population increase is in 48 least developed countries (33 in the Sub Saharan region, 14 in Asia and one in Caribbean, Haiti) with growth rate of 2.4. These countries are specially characterized having low incomes, high economic vulnerability, and poor human development indicators such as low life expectancy at birth, very low per capita income and low levels of education. This would result in many economic, social, and environmental challenges, not only for these countries but also for the entire global community in relation to supply of food, water, education and health services, gainful employment, and manage to avoid poverty and hunger(Haub 2015).

Trends in Developed Countries: Fertility began to decline in North America and many Western European countries in late nineteenth century. They could reach replacement level fertility within 50–70 years. Many of them are now experiencing fertility below replacement level and negative population growth, first in the Europe. The population growth has slowed or stopped in North America and Japan. This global recession has resulted in large increases in elderly population with its economic burden in maintaining them by the smaller group of younger population. Some of the developed countries (Australia, Canada, New Zealand, and the United States), migration causes the population growth, but not due to the increase in fertility (Haub 2015).

The Demographic Divide: Globally, there is a big demographic difference between developed and developing countries in relation to birth and death rates. This is called the "demographic divide". In one extreme of this divide are mostly poor countries with relatively high birth rates and low life expectancies and thus contributing to the major proportion of global population. On the other extreme are mostly wealthy countries with so low birth rates and life expectancy of more than 75 years with negative population growth and rapidly aging populations resulting high dependency ratio (Population Reference Bureau 2008).

Effects of fertility in population growth: The only initial outcome of fertility is the occurrence of pregnancy in those reproductive aged women, either wanted or not. The wontedness is highly subjective depending on the circumstances during the period of conception and after delivery. According to Gilda Sedgh, Susheela Singh, and Rubina Hussain who conducted analysis in recent trends of intended and unintended Pregnancies worldwide in 2012, estimated global annual number of pregnancies has increased slightly since 2008, from 211 to 213 million representing a net increase of 1.2%. Of this 213 million, 190 (89%) occurred in the developing world with wide variation among regions. Of all pregnancies, 56% occurred in Asia, 25% in Africa, 8% in Latin America and the Caribbean, 7 % in Europe, 3 % in North America, and lesser than 1% in Oceania (Table 1). However, during the same interval, number of women aged 15–44 years

Table 1. Global incidence of pregnancies & unintended pregnancies from 1995 to 2012

Region	Total number of pregnancies (million)			% of unintended pregnancies [a]		
	1995	2008[b]	2012	1995	2008[b]	2012
Worldwide	209.5	210.9	213.4	43	42	40
More developed	27.9	23.4	23.4	55	44	47
Less developed	181.5	187.5	190.0	41	49	39
Africa	40.2	49.3	53.8	35	39	35
Asia[c]	122.8	122.1	119.7	41	39	38
Europe	18.5	13.7	14.1	56	46	45
Latin America / Caribbean	18.3	17.7	17.8	60	60	56
North America	6.8	7.2	7.1	47	48	51
Oceania	1.1	0.9	0.9	34	37	37

NOTES: Pregnancies are comprised of planned births, unplanned births, abortions, and miscarriages. More developed regions include Australia, Europe, Japan, New Zealand, and North America; all others are classified as less developed. a Unintended pregnancies are comprised of unplanned births, abortions, and miscarriages of pregnancies that are unintended. b Overall and unintended pregnancy estimates for 2008 are revised from previously published estimates to include abortion rates for 2008 published in 2012. c Estimates for 1995 exclude Japan **Source:** *Studies in Family Planning 45(3)*

Table 2. Estimated percent of all pregnancies* that ended in abortion, worldwide and by region and year.

Region[1]	1995	2003	2008
World	22	20	21
Developed countries[2]	36	28	26
Excluding Eastern Europe	20	19	17
Developing countries[2]	20	19	20
Excluding China	16	17	18
Africa	12	12	13
Asia	21	22	22
Europe	42	32	30
Latin America	23	22	25
Northern America	22	21	19
Oceania	17	16	14

*Pregnancies include live births, abortions and miscarriages. Source: The Lancet: 2012. 379, (9816)

Table 3. Estimated number of induced abortions (in millions) worldwide and by region, and year, percentage ending as unsafe abortions

Region[1]	1995		2003		2008	
	Total	% unsafe	Total	% unsafe	Total	% unsafe
World	45.6	44	41.6	47	43.8	49
Developed countries[2]	10.0	9	6.6	7	6.0	6
Excluding Eastern Europe	3.8	3	3.5	3	3.2	^
Developing countries[2]	35.5	54	35.0	55	37.8	56
Excluding China	24.9	76	26.4	73	28.6	74
Africa	5.0	99	5.6	98	6.4	97
Asia	26.8	37	25.9	38	27.3	40
Europe	7.7	12	4.3	11	4.2	9
Latin America	4.2	95	4.1	96	4.4	95
Northern America	1.5	^	1.5	^	1.4	^
Oceania	0.1	22	0.1	16	0.1	15

• Regions as defined by the United Nations.
• Developed regions are defined here to include Europe, North America, Australia, Japan and New Zealand; all others are classified as developing
^ Rate or percent less than 0.5. Source: The Lancet, 2012. 379 (9816)

has increased in 3.5%, probably due to high fertility existed in the past (Sedgh *et al* 2014).

Global trend of unintended pregnancies: Unintended pregnancies comprised of mistimed and unwanted pregnancies at the time of conception. They consist of unplanned births, induced abortions, and miscarriages resulting from unintended pregnancies. Unplanned births consist of those occurring two or more years sooner than desired ("mistimed") and those that were not wanted at all by the mother ("unwanted") Globally, the percentages of unintended pregnancies have reduced from 43% in 1995 to 40% in 2012. Except North America and Oceania, all other regions experienced the same reducing trend (Sedgh *et al* 2014). However, by 2017, eighteen European countries experienced increase in their population (highest in Luxembourg and Sweden) while the rest 10 experienced a decline in their population (lowest in Lithuania and Latvia).

As estimated, rates of unintended pregnancies are varying from 34% in Western Europe to 54% in Eastern Europe. It has been identified that, length of the reproductive span and exposure to the risk of conception, desired number of children and use & effectiveness of contraceptives as determinants of unintended pregnancies. In Europe, although the age of sexual debut has fallen between 15 to 18 years of age during the 20th century, the age at marriage is around 30 (ESHRE Capri Workshop Group 2018). Thus, the period of exposure to sexual intercourse among unmarried girls has increased subjecting them to have unintended pregnancies. Since most couples want no more than two children, unintended pregnancies can be prevented only by using highly effective contraception coupled with education on reproductive health sexuality (Emily *et al*. 2019). Considered Sub Saharan Africa, occurrence of unintended pregnancies varies ranging from 10.8% in Nigeria to 54.5% in Namibia with average of 29%. Married, uneducated, rural women with poorest wealth status have been

identified bearing high risk of unintended pregnancies (Ameyaw *et al*. 2019). In North America, the general pregnancy rates have got reduced while unintended pregnancy rates are increasing. The latter is higher among poorly educated women with income below the federal poverty. Further, black women had the highest unintended pregnancy rate (79 per 1000 women 15-44 years) while non-Hispanic white women had the lowest (33 per 1000 women 15-44 years). Meanwhile, proportion of pregnancies that are unintended generally decreases with increasing age of the woman (Sonfield & Kost 2015) According to National demographic surveys conducted from the mid-1970s to 2008 in Latin America, one third of births were unwanted ranging from 21% in Paraguay to 60% in Bolivia. A woman had at least one unwanted child during her reproductive life. However, in many countries, Wanted Fertility Rate is below the replacement level with average of 2 (Casterline & Mendoza 2009).

Outcomes of unintended, unplanned pregnancies: Two outcomes of unplanned pregnancies are induced abortions and unplanned births if no spontaneous fetal losses occurred. Most women with unintended pregnancies will resort to induced abortion as a remedial measure with resultant morbidity and sometimes mortality if undergone under unsafe conditions. Abortion laws were highly restrictive during the latter part of the 19th century and at the beginning of the 20th century in most of the Western countries. Liberalization of abortion laws initially started in the Nordic countries in the 1930s; when Iceland (1935), Sweden (1937) and Denmark (1938) enacted less restrictive legislation followed by Central and Eastern Europe in the 1950s. Almost all remaining developed countries liberalized their abortion laws during the 1960s and 1970s. However, few developing countries including China and India, have got liberalization of abortion laws thereafter. Restrictive abortion laws still exist in many developing countries, particularly in Africa and Latin America (Van Look & Hertzen 2019). The abortion law has been changed in 28 countries since 2000 to include socioeconomic reasons or without restriction as to reason at different levels. Further, 24 have added abortions to be performed in cases of rape or incest, or when the fetus is diagnosed with a grave anomaly. By 2017, 42% of women in 125 countries are under highly restricted law either to save mother's life or completely prohibited. Of them 93% are developing countries.

Other than the law, obtaining abortion has been restricted by cultural and religious traditions and the lack of availability of medical resources, especially in developing countries (Singh *et al*. 2018). However women in all over go for induced abortions irrespective of the legal ground because restricted law is not preventing induced abortions. Further, safety of induced abortions is not equally available around the world. Generally, safety is less in countries with more restricted abortion laws. Simultaneously, women are able to get safe abortion even in restricted countries if the socio economic statuses are better. Therefore, minimizing hazards related to abortions must be viewed according to the safety of the services too. An induced abortion becomes unsafe if it is performed by a person lacking necessary skills or in an environment lacking minimal standards or both (WHO 1994).many techniques like vaginal preperations, oral and injectable medicine, introduction of foreign bodied into the uterus and traumatizing the abdomen are used to perform induced abortions. These can lead to serious complications including death of the woman as the terminal entity, severe intrauterine damage and bleeding,

sepsis, reproductive tract infections leading to pelvic inflammatory disease, adhesions. It can further lead to have ectopic pregnancies, infertility, premature deliveries and abortions in subsequent pregnancies (WHO 2003). Even though the exact number is not known, an estimated 26-31 million legal and 10-22 million clandestine abortions were performed worldwide with a rate of 35 per 1000 women in the age group of 15-44 years in 1987. Even by 1995, the situation has not changed. In developed countries only 9% of abortions are illegal compared to 54% in developing countries (Henshow *et al*. 1999). By 2003 approximately 42 million pregnancies are voluntarily terminated, 22 within the national legal system and 20 outside it worldwide. Considered safety of those abortions, 93% of unsafe abortions occur in developing countries with a rate at 39 per 1,000 women aged 15-44 years. Comparatively, in developed countries, the rate of unsafe abortions is only 2 per 1000 women aged 15-44 years. Unsafe abortion is caused by poverty and is a cause for poverty (WHO 2003). According to the estimates of Guttmacher Institute, global rate of unintended pregnancies has come down from 79 to 64 per 1000 population within the period of 1990-1994. But it has increased to 61 by 2015-2019. Between 2015 & 2019, around 121 million unintended pregnancies have occurred each year, of which 61% (73 million annually) have been ended with induced abortions. Although the rate of unintended pregnancies had reduced, the proportion ending as abortions has got increased. Unintended pregnancy rates and abortion rates are higher in countries with restricted abortion laws than in countries in which abortion is legalized in broad grounds. Further, a big disparity is existing among low, middle and high income countries. Thus, having legalization would not be much beneficial if provision of reproductive health and sexual health care services are not adequate. Further, easily accessible family planning services including services for adolescents and the provision of emergency contraception, as well as universal sex education at school influence a country's abortion rate to a much greater extent than only the liberal nature of its law (GUTTMACHER INSTITUTE 2020). According to estimates by Segdh *et al* on the incidence and trends induced abortions worldwide from 1995 to 2008, global abortion rate was stable between 2003 and 2008 around 28 per 1000 women 15-44 years while the percentage of unsafe abortions is increasing (Table 2 & 3) (Sedgh 2012). According to the WHO estimates in 2003, a woman dies every 8 minutes due to complications arising from unsafe abortions resulting in the death of 68,000 women accounting for about 13 percent of maternal mortalities [20]. It has revealed that almost all of these deaths occur in developing countries. It should be stressed that the consequences of unsafe abortion generally fall upon poor women, resulting in death, serious injury, infertility and increased health care costs. Other than death, Millions are injured or disabled because of medical complications. About 5 million women who undergo unsafe abortions have long-term health complications (WHO 2003).

Sri Lankan situation with regard to unplanned pregnancies
According to the findings of Sri Lanka Demographic and Health Survey (SLDHS) 2016, contraceptive prevalence is 64.6% with that of modern methods is 54.6%. Unmet need for FP is 7.5%. TFR is 2.2 while WFR is 1.9 (Ministry of Plan and Implementation 2018).Although free FP services are available through the National FP programme, 20% of pregnancies occurred within previous 5 years among participants in SLDHS 2006/7 were reported to be unintended (Ministry of Plan Implementation 2008).

Since induced abortion is permitted only to save mother's life in Sri Lanka, actual estimates of induced abortions are not available (Ceylon Penal code). According to a National survey on induced abortion conducted in 1999, the abortion rate was 45/1000 in 1998 among women 15-49 age group. This accounts for 75% of live births reported, thus contributing to fertility control in the country. It was low in unmarried (rate was 12/1000) The total abortion rate was 1.6 for women of 15-49 years of age, with 1.9 for currently married women. The reasons given by married women for having an abortion were that the particular pregnancy was too soon after the last delivery, poverty and foreign employment (Rajapaksha 2002). In another study conducted to assess the profile of women seeking abortions, it has been revealed that abortion rate was more prevalent in married women in 25-39 age groups with two or more children in urban and semi urban settings. Thirty nine percent of women seeking induced abortions were using modern and traditional methods at the time of conception indication incorrect use of FP or may be method failures (Rajapaksha & De Silva 2000).

According to available estimates, approximately 700-800 induced abortions are performed per day, which accounts for more than 50% of live births per day (Abeykoon 2009). The effect was serious that 38% of maternal deaths in 2003 and 43% in 2004 were due to unwanted pregnancies, whereas 11.7% of maternal deaths were due to septic abortions, which was the fourth leading cause of maternal deaths in Sri Lanka. By 2006, it has come to the second place (Family Health Bureau 2009). Complicated induced abortions exert a considerable cost to save women who get unsafe abortions. It has been assessed that total average cost of an induced abortion admitted to hospital with complications was 462 US $ which comprised of expenses of the woman for obtaining the abortion (21%), and expenses to the health system for providing care for complications (79%) (Thalagala 2010a). Since the abortion law in Sri Lanka is very restrictive, decision on abortion as well as on getting it is difficult and has been stigmatized under normal circumstances. A study on process, determinants and impact of unsafe abortions has been conducted among 665 women who had had induced abortions within 18 months prior to the survey. It revealed that 97% abortions seekers are married women. Given reasons for getting abortions are the youngest being too young, unwanted pregnancy, getting pregnant while having grown up, woman being too old and contraceptive misuse or failures.

The most striking feature is that, 73% of abortion seekers had unmet need for family planning which indicates the poor family planning coverage among married families. Main stated reasons for unmet need were lack of knowledge and awareness on family planning; again indicating the inadequacy of communication between service providers and the community. Considered providers of abortion services, 54% by private medical practiners, 18% by government doctors at outside setting. Only 1% has been performed by traditional healers and 1% by ayurvedhic practiners. Of all 665 women, 25% were reluctant to reveal the abortionist. Since 94% of abortions performed before 12 weeks of gestation, major complications were not common. However, those who died are not in the study and may dilute the effects of unsafe abortions in the country (Thalagala 2010b). Thus, in order to ensure reproductive rights of women, provision of safe abortion services by making it legal on broad ground is a remote target depending on the situation in the country in relation to social and religious norms. The main issue of not practicing of family planning has to be addressed effectively to reduce unmet need and thereby induced abortions as well. Further, to reduce the burden of unsafe abortions, post abortion care has been addressed in the National Maternal and Child Health Policy (Family Health Bureau 2010). This may be the reason for the abortion to come to 6th or 7th reason for maternal deaths by 2018. However, in spite of cultural and religious resistance, policy planners are on the tract of making abortion legalized for rape, incest and congenital abnormalities of fetus in Sri Lanka in near future. But, it will not address the burden of unsafe abortions as 97% abortions seekers are married women and the reasoning of rape, incest and congenital abnormalities of fetus has not been stated in any of the surveys conducted.

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