

ACCESS TO FAMILY PLANNING AND WOMENS'S HEALTH

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INTRODUCTION

Access to family planning is considered one of the drivers of fertility decline. With contraception and abortion as proximate determinants of fertility, this paper discusses the role of access to family planning as an important public health intervention to increase contraceptive use, decrease fertility, and improve women's reproductive health. Abortion rates in the context of fertility decline are debated, as unsafe abortion contributes significantly to the morbidity and mortality of girls and women of reproductive age. Provisions of services, as well as removal of barriers to access to family planning, are also discussed in the context of supply and demand strategies in family planning programs. We argue that family planning programs affect women's reproductive health indicators and constitute an important strategy to accelerate fertility transition. This transition is much needed in high fertility countries in sub-Saharan Africa to open a window of opportunity that will bring demographic changes that can allow countries to benefit from the demographic dividend.

Women's Reproductive Health and Mortality

Sub-Saharan Africa has witnessed a decline in fertility from 6.5 children per woman in 1950–55 to 5.4 in 2005–10. This decline appears to be much slower than in other regions with similar high fertility in 1960s. In addition there are huge variations among countries regarding the pace of the decline. There are countries in southern Africa with total fertility rates (TFR) of less than 3; countries such as Gabon and Zimbabwe have a TFR between 3 and 4; Kenya and Ethiopia have a TFR of between 4 and 5; Nigeria and Tanzania have a TFR between 5 and 6; and countries such as Angola and Niger have very high fertility rates exceeding 6 children per woman. Data from

Demographic and Health Surveys (DHS) also show that within countries, differences in TFR are noteworthy. Women from the poorest socio-economic groups, those in rural areas and those with little or no education are the ones with the highest TFR, present the lowest rates of modern contraceptive use and have the highest percentage of women with unmet need for family planning.

The persistent high fertility in the region contributes to poor indicators of women's health. High fertility is associated with high maternal mortality due to insufficient spacing of the pregnancies and incremental risk of dying with each pregnancy. Worldwide, maternal mortality has been declining and the same is happening in sub-Saharan Africa. However, the region shows a decline at much slower pace than other regions of the world and still exhibits the highest maternal mortality ratios (MMR) in the world. The MMR in sub-Saharan Africa increased significantly from 150 maternal deaths per 100,000 live births to 565 between 1990 and 2006. MMR in the region has declined since then and is estimated to be around 279 maternal deaths per 100,000 live births. However, major variations exist between countries. For example, South-Sudan has an MMR of 956 maternal deaths per 100,000 live births (Kassebaum et al, 2013).

On the quality and accuracy of MMR estimates, we can briefly say that the more recent estimates differ significantly in the total number of maternal deaths from previous estimates, especially those published by the UN. It is a fact that maternal deaths are poorly recorded in resource poor settings, thus depending on the methodology employed and data sources, estimates of global, regional and country level MMR may differ. The current estimates use robust statistical methods including the Cause of Death Ensemble model to analyze 7065 site-years and estimate the number of maternal deaths from all causes in 188 countries between 1990 and 2013. Cause specific mortality and the fraction of deaths aggravated by pregnancy were made using systematic reviews of vital registration data among other sources, while country estimates for the same period were developed using Bayesian meta-regression. One of the most important differences between the recent estimates and the UN's seems to be related to the WHO estimates of reproductive-age mortality and also the fraction of reproductive-age mortality due to maternal causes. Furthermore, the UN MMR estimates predict levels of adult mortality in West Africa on the basis of child mortality, while the more recent estimates make use of survey and census data from the region in the Global Burden of Disease analysis. While a definitive conclusion on the

quality of MMR data is beyond the scope of this article, it is important to note that the recent estimates employ a more comprehensive and refined methodology using all available data sources, which likely yield more accurate estimates.

The burden of unsafe abortion

Over 22 million unsafe abortions take place in developing countries (Ahman et al, 2011). The 2013 Global Burden of Disease Study revealed that unsafe abortion is the second leading single cause of maternal death globally after hemorrhage (Kassebaum et al, 2014). In 2010, the mortality ratio from unsafe abortion was estimated at 40 per 100,000 live births, ranging from 10 in Asia to 80 in Africa (Ahman, et al 2011). Singh et al. (2006) estimate that around 5 million unsafe abortion seekers develop some form of disability requiring medical care. The incidence of severe acute maternal morbidity is estimated to be six times higher than mortality ratios, 15 times higher for severe complications and 100 times higher for any complication, making unsafe abortion a large contributor to maternal morbidity and disability (Adler et al, 2012). Even though the number of deaths from unsafe abortion decreased globally from 49,970 in 1990 to 43,684 in 2013, in sub-Saharan Africa, the same period saw a 40% increase in abortion-related deaths, from 18,400 to 26,000 (Kassebaum et al, 2013).

Status of women and policies to improve maternal health

There is evidence that changes in fertility aspirations reflect changes in social and cultural norms. Gender inequality plays a role in fertility behavior. In sub-Saharan Africa couples tend to differ in their fertility aspirations, with men showing desire for larger families - higher fertility. Thus, empowering women to freely participate in decision making is crucial to achieve lower fertility and as a result help improve maternal health. A review of studies investigating the relationship between women's empowerment and fertility indicators found positive association with lower fertility, longer birth intervals, and lower rates of unintended pregnancy (Upadhyay et al, 2014). Strong political will in the region and stakeholder involvement are key strategies in the development and implementation of policies and actions that empower women and increase access to family planning. Women and couples would then be able to make informed decisions and as a result fertility decline could be accelerated. Such acceleration is crucial to bring about changes in the age structure of the population, creating what is known as the “demographic

window of opportunity”. By creating this important demographic opportunity countries are primed to benefit from the demographic dividend, grow economically, and improve the socio-economic status of its citizens.

A review of countries which assesses global progress and potentially effective policy responses to reduce maternal mortality illustrates that effective policies include: i) innovative financing measures; ii) investment in human resources both in terms of strengthening pre-service education and emphasizing in-service training for healthcare providers; iii) strengthening obstetric care by enhancing infrastructure and upgrading equipment, as well as improving quality of services; and iv) investing in the broader determinants of maternal mortality, particularly family planning and women's education and socioeconomic empowerment (Mbizvo & Say, 2012). Countries with persistent high MMR in sub-Saharan Africa encounter many challenges for implementation of these strategies ranging from lack of political will to availability of accurate data for decision making and limited financial resources and health care workforce (Prata et al, 2010).

Family Planning Programs, Contraception and Fertility

Family planning programs are recognized as important contributors to increases in contraceptive use. In about 40 years of organized national family planning programs in developing countries, contraceptive use increased from 10% to 60%, resulting in about 50% fertility declines of rates before the implementation of family planning programs (Cleland et al, 2006). Increases in contraceptive use contribute significantly to declines in fertility, as contraception is one of the proximate determinants of fertility. In addition, contraception relates to abortion rates, another important proximate determinant of fertility decline. This combined effect on birth rates has the potential to reduce maternal mortality by 32% in high birth rates countries, in addition to a 10% reduction in child mortality (Cleland et al, 2006), demonstrating the potential impact that family planning programs can have on women's and children's health.

A recent analysis of trends in contraceptive need and use in developing countries shows that in sub-Saharan Africa between 2003 and 2012, 49 million more women of reproductive age (15-49 years) were reported, mostly resulting from population growth (Darroch & Singh, 2014). This

increase resulted in an additional 25 million women wanting to avoid pregnancy. However, the number of women using modern contraceptive methods has not increased substantially during this same period. In 2012 an estimated 36 million women were using modern methods, an increase from 20 million in 2003. However, only 40% of women in 2012 who wanted to avoid pregnancy were using modern contraceptive methods compared to 32% in 2003 (Table 1). Consequently, it is not surprising that the unmet need for modern methods in this region continues to grow (43 million women in 2003 compared to 53 million in 2012). Most women using modern contraceptives in sub-Saharan Africa continue to rely on resupply methods such as injectables, pills, and condoms (Figure 1). Injectable contraceptives have been the fastest growing modern method in sub-Saharan Africa, especially in rural areas where this is the preferred method, and the longest acting method available. Rural women have been benefitting from a growing number of community-based distribution programs, making this method more accessible in their communities.

Relationship between contraception, fertility and abortion

Throughout the world women control their fertility with contraception and abortion, and sub-Saharan Africa is no different. Thus, understanding the relationship between contraception and abortion is vital to recognize the possible impact on women's health especially during fertility decline and in societies where abortion is highly restrictive – as it is the case of the vast majority the countries in sub-Saharan Africa.

It is expected that when fertility is constant, increases in contraceptive use will result in decreases in abortion rates. In contrast, when fertility is declining, both abortion and contraceptive rates can rise initially until a threshold is reached. At that point, a high contraceptive prevalence is expected to prevent most of the unintended pregnancies, thus decreasing the need for abortion (Marston & Cleland, 2003). In addition, the method mix of the high contraceptive prevalence reflects a distribution with a large percentage of women using very effective long acting methods commensurate with achieved desired family size. The Korean example (Fig 2) can help us appreciate the role of abortion during fertility transition. As can be seen in Fig 2, Korea's initial stage of fertility decline was accompanied by both increases in contraceptive and abortion rates for more than 15 years (1960 to late 1980s). The difference in

this case was that Korea had safe abortion available to women, and the country did not experience a negative impact on women's health as a result of this demographic trend.

A similar pattern can be observed in sub-Saharan Africa. Abortion rates are very high in all sub-regions except in the southern region where modern contraceptive use is much higher. In the remaining sub-regions of sub-Saharan Africa where fertility has for the most part started to decline, many countries show indication of contraceptive use rising, but most likely not fast enough to respond to the demand for services. Thus, a rise in abortion rates should be expected, and can partially explain the rise in abortion mortality observed by Kassebaum et al (2013). Abortion is highly restricted in most sub-Saharan African countries, so many women resort to unsafe abortion. Evidence shows that women who have undergone unsafe abortion are at higher risk of repeat abortions (Prata et al, 2013). Studies also show that more than half of women receiving post-abortion care following an unsafe induced abortion had never used contraception prior to the abortion.

Confronting abortion during fertility decline

Confronting abortion during fertility decline in sub-Saharan Africa is imperative. Morbidity and mortality due to unsafe abortion constitutes a major women's health issue that can be addressed with existing evidence from policies and programs. However, it is a public health issue that has been neglected. In 2013, a WHO independent Expert Review group on information and accountability for women's and children's health concluded that there has been "*a pervasive neglect of safe abortion*" in reproductive health. Since the 1994 International Conference on Population and Development declaration that "*in all cases, women should have access to quality services for the management of complications arising from abortion*", unsafe abortion-related mortality has remained high. Despite changes in laws that allow or expand legal provisions under which abortion is permitted, in most countries, service provision is still hindered by limited awareness and interpretation of existing and new laws by health providers and women and their families (Shah et al, 2014). Moreover, differential access to safe abortion care illustrates the wide economic and social equity gaps. Young, poor, rural women are at a much greater risk of unsafe abortion than their more wealthy counterparts living in urban areas, regardless of the existing laws and degrees of restrictions. These issues make it all the more

urgent that strong policies and protocols to manage unsafe abortion while accelerating women's access to family planning methods in sub-Saharan Africa are implemented now.

The issue of safe abortion is clearly a pressing one for women's health and mortality. In an examination of 140 public health professionals and researchers surveyed for a 2014 study on research priorities for maternal and perinatal health, five of the top 20 research questions focused on abortion. These included, among others areas for increasing awareness and uptake of post-abortion contraception, integrating abortion services into existing family planning services and implementing task-shifting for post-abortion care (Souza et al, 2014). With a new global focus on family planning expected to greatly increase the numbers of women using contraception, it is likely that abortion rates will rise in sub-Saharan Africa, especially in countries where abortion is restricted by law.

First, while most country laws restrict abortion, provision of post-abortion care to women experiencing unsafe abortion (and who have a legal right to this care) will become increasingly important. In these countries, the provision of comprehensive post-abortion (PAC) care services that include uterine evacuation, family planning counseling and method provision is vital. In this respect, task shifting of PAC services to mid-level providers has the potential to increase access to care for women, especially in rural areas where a delay of several hours in seeking services can make the difference between life and death. Second, within the framework of existing abortion laws, positive actions can be taken to increase access, including raising awareness of the provisions in abortion laws that permit a woman to have a legal safe abortion (e.g. in cases of rape, women's health condition, incest, force marriage, fetal malformation, among others), informing the public where services can be obtained, recruiting and training providers, and implementing task shifting of services to mid-level providers (Guttmacher Institute, 2012). Third, abortion laws should include a provision that allows safe abortion in the event of contraceptive method failure.

Although the majority of unintended pregnancies still result from non-use of contraceptives, there will still be a significant number of women that experience contraceptive failure of modern

and traditional methods. In an analysis of 19 developing countries, Cleland and Ali (2004) estimated that contraceptive failure contributes to around 15% of the unintended pregnancies and 12% of the abortions (Cleland and Ali, 2004). Even though the provision of safe abortion services will continue to be restricted in many developing countries, it is important to recognize that increasing abortion rates are an inevitable consequence of a rapid change in demand for family planning services. As a consequence, unsafe abortion will remain a major women's health issue. However, every country can and must do something to address unsafe abortion. Technologies are available to provide services at all levels of health facilities, including in rural areas. Policies and protocols can be implemented to increase access, and legal reforms are possible to expand the provisions under which abortions can legally be conducted. While donors and governments are committed to programs to increase contraceptive use, what is missing is equal attention to the inevitable public health problem of unsafe abortion (Tietze & Bongaarts, 1975). With the formulation of the new Sustainable Development Goals, unsafe abortion must be high on the reproductive health agenda to ensure that the basic human right of access to these services for all women enshrined in the ICPD is upheld globally, and we begin to confront a solvable public health catastrophe.

Contraceptive method mix and unintended pregnancies

During demographic transition the impact and need of family planning programs can also be demonstrated by assessing trends in incidence of unintended pregnancy. An estimated 80 million unintended pregnancies occur every year in developing countries, about 50% of them end in abortions (Sedgh et al, 2014).

While overall contraceptive use has been increasing in sub-Saharan Africa (PRB, 2014), it is important to note that leading causes of unintended pregnancies are closely related to contraceptive method mix. In sub-Saharan Africa, long acting reversible methods such as IUDs and non-reversible methods for both men and women continue to be very low and have not experience an upward trend from 2003 to 2012 (see Figure1). Women continue to rely on resupply methods. Although these methods are relatively more available, they have higher user failure and discontinuation rates. Some of the reasons for discontinuation have also been

associated with the supply side of the resupply methods. Commodity stock outs, poor quality of services (e.g. insufficient counseling on side effects), and overall limited access to family planning services are among the reasons associated with method discontinuation. Although research suggests that nonuse of contraception is the main factor contributing to unintended births, contraceptive discontinuation contributes 15% to unintended pregnancies in addition to an estimated 10% contribution to abortion. The contribution of contraceptive discontinuation to unintended pregnancies and abortion could mostly be prevented with highly effective family planning methods (Cleland and Ali, 2004).

The potential for long-acting reversible contraceptive (LARC) methods to decrease unintended pregnancies was well described in a 2008 editorial by Spiedel and colleagues (Speidel et al, 2008). LARC methods are highly effective, highly cost-effective from a programmatic perspective, and are suitable for almost all women that want them. In addition, they usually present a relatively high client satisfaction rate. For example, subpopulations such as postpartum and post-abortion women are great candidates for LARC, in addition to women without access or not wanting to resort to permanent methods. Furthermore, adolescents and young adults that are sexually active and know they do not want to have a child in the next 3-5 years are equally great candidates. However, as can be seen in Figure, the use of IUDs in sub-Saharan Africa declined slightly from 2003 to 2012.

Many factors have been associated with barriers to LARC methods affecting both supply and demand side: providers lack information, are misinformed and lack training; family planning programs' commodity procurement emphasizes resupply shorter-acting methods; and clients' lack of knowledge, misinformation, and fear of how future fertility might be affected. In summary, limited or non-existent access to LARC methods prevail in sub-Saharan Africa.

Supply and Demand for Family Planning Services

In the past, the role of family planning programs and demand side factors rationalized by the number of women who wanted to stop childbearing have been questioned, especially in sub-Saharan Africa where lack of progress in fertility reduction was observed. Debates emerged and the value of family planning programs was questioned in what seemed to be understood as lack of demand for services due to slow changes in the desire for smaller families. Demand for children was understood to be high in sub-Saharan Africa due to many social, cultural and economic reasons in addition to prevailing high infant mortality rates. Generally, there was a view that fertility transition was largely the consequence of changing parental demand for children as a result of changes in the economic costs and benefits of raising children. These views have been challenged with an alternative explanation that fertility transition can be driven by the level of knowledge and access to contraceptive methods. In fact, even in Latin American countries that have completed fertility transition, efforts to improve efficiencies in supply of family planning services in order to generate and meet future demand for services continue. Although changes in desire for fewer children are imperative, it is known today that the drivers of these changes include an understanding of how to realistically provide opportunities for fertility control. For many women in sub-Saharan Africa, numerous barriers to fertility regulation exist; the majority of them are considered supply side barriers.

Barriers to family planning are defined by Campbell et al (2006) as “*the constraining factors standing between women and the realistic availability of the technologies and correct information they need in order to decide whether and when to have a child*” (Campbell, 2006). These barriers include four key groups of issues; correct knowledge about contraceptive methods; fear of social disapproval; fear of side effects and health concerns including future fertility; and women’s perception of husband’s opposition (Cleland et al 2006). Supply and demand side interventions can address these barriers through the design of culturally and socially appropriate family planning programs. It is important to note that some of these barriers can be perceived by women as insurmountable, resulting in many of them with an unmet need for family planning but reporting not wanting to use family planning methods.

The interplay between demand and supply side strategies is extremely important. Current evidence suggests that strategies do exist to successfully generate demand for services including for LARC and among all types of sub-populations of potential users. There is also evidence that

supply/ availability of quality services and preferred contraceptive method can increase demand. Women tend to listen to their friends and family for recommendations about methods and providers. In the same way, these networks when uninformed can be a source of spreading of rumors, myths and misconceptions about family planning methods, making it more difficult for women to adopt family planning. Hence, the removal of barriers to fertility regulation is at the forefront of the timing and pace of fertility decline. Demand generation strategies need to be implemented including campaigns that address social barriers. However, a growing demand for services can only be met with a significant increase in resources and improvements in the quality of services and supplies. In addition, the ability to have “contraceptive choice” – women can choose their preferred method and that choice can change according to the reproductive stage of each women - is key to success. However, many family planning programs in sub-Saharan Africa are focusing on a few of the existing modern methods, decisions mostly driven by family planning programs’ capacity to offer methods, cost-effectiveness, and to some extent the donor influence. While pragmatism can be seen as an important feature in program implementation in resource poor settings, it is important to consider the implications of limiting choice as a barrier to contraceptive adoption in the case of sub-Saharan Africa, one that is imposed by the supply side. The reality is that family planning is not a free market-based economy where prices for goods and services are set freely by the forces of supply and demand, allowing them to reach equilibrium without intervention by policy and programs. In addition, there is limited knowledge about behavioral economics application to fertility decision making.

A review of the behavioral economics in reproductive health prepared by the Center for effective Global Action at the University of California, Berkeley concluded that few of the behavior economic tools in public health and policy interventions have been tested in the context of reproductive health. The review proposes four unique opportunities where evidence of biases in reproductive decision-making suggest compatibility with the toolkit developed by psychologists and economists. These opportunities are: i) correcting wrong beliefs; ii) changing norms ; iii) making family planning easy to get; and iv) motivating service providers. While some of the behavioral economic tools are novel to reproductive health and more specifically to family planning, the opportunities identified in the review for application of behavioral economics have been recognized by the family planning community, and in many places, strategies have been put in place to address those opportunities. However, it is important to note that reproductive

decision making involves unique matters. These include gender inequality, ability to make reproductive decisions, age difference between partners, coercion, disease risk perception and perception of economic risks by going against the socially expected outcome such as preference for large families, to name a few. Many of these issues have limited roles in other areas of health that have benefited from behavior economics principles. Thus, appropriate application of behavioral economics in fertility decision making, including family planning use, is still a major gap in knowledge that could be used for programmatic planning.

In summary, contraceptive practice can influence the pace of fertility decline in sub-Saharan Africa making it a critical step in creating the demographic window of opportunity so changes in the age structure of the population can be quickly achieved. But, demand for contraceptives will be greatly influenced by supply. Because use of preferred contraceptive method can be associated with higher likelihood of method continuation, especially in resupply methods, making sure that demand for preferred method is satisfied is important. However, this will require significant shifts in policies and programs so women have “real contraceptive choice” and not just opportunities to use certain methods that are available at a certain point in time. Moreover, to accelerate contraceptive use in sub-Saharan Africa, innovation in service delivery will be required. New approaches to serve the poor in rural areas and/or exploring synergies from combining old approaches including better use of private sector are needed.

Conclusion

Family planning provides women with a fundamental human right – ability to control their fertility. By doing so it empowers women, improves women’s reproductive health and maternal mortality while decreasing child mortality and poverty. The consequent declines in fertility will also create the demographic window of opportunity that can in turn allow countries to benefit from the demographic dividend. Thus, access to family planning is an important driver of the demographic dividend. At individual and family level, the benefits from the demographic dividend can improve work opportunities for women, resulting in higher incomes and savings; improve health and education; and increase gender equality. In sub-Saharan Africa fertility remains high, contraceptive use remains low, unmet need for family planning keeps growing and

the population continues to grow rapidly. Thus, a much slower fertility transition can be expected. However, actions can be taken to accelerate fertility decline through empowering women and creating realistic access to information and contraceptive methods. What the region needs is strong leadership and political will to allocate resources, remove barriers to access and implement existing family planning policies by considering them part of the country's development agenda.

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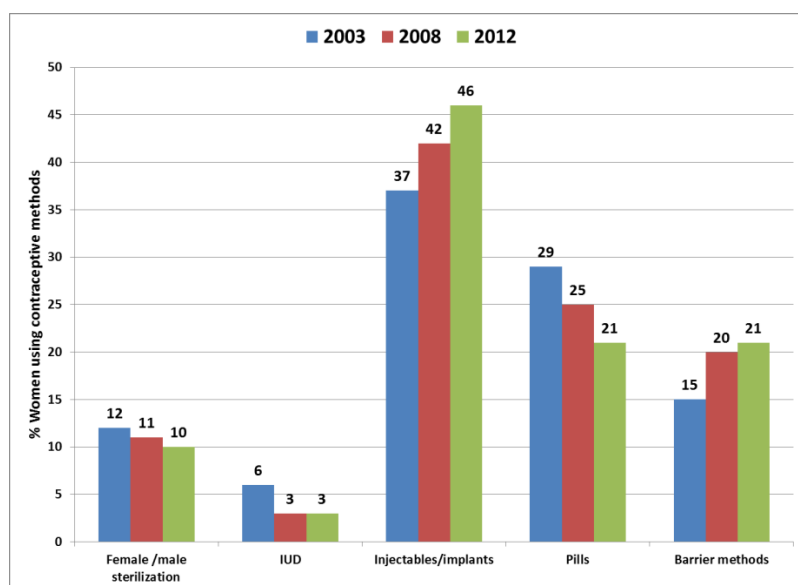
Tables and Figures:

Table 1: Trends in selected family planning indicators use in sub-Saharan Africa, 2003, 2008, and 2012.

	2003	2008	2012
Number women 15-49 years (millions)	164	195	213
Number women wanting to avoid pregnancy (millions)	64	78	89
% wanting to avoid pregnancy	39%	40%	42%
Number using modern methods (millions)	20	28	36
% wanting to avoid pregnancy using modern methods (%)	32%	35%	40%
Number with unmet need for modern methods (millions)	43	51	53
% wanting to avoid pregnancy with unmet need for modern methods (%)	68%	65%	60%

Source: Table assembled by author using data from: Darroch & Singh, 2013 (Tables 2.3 & 5).

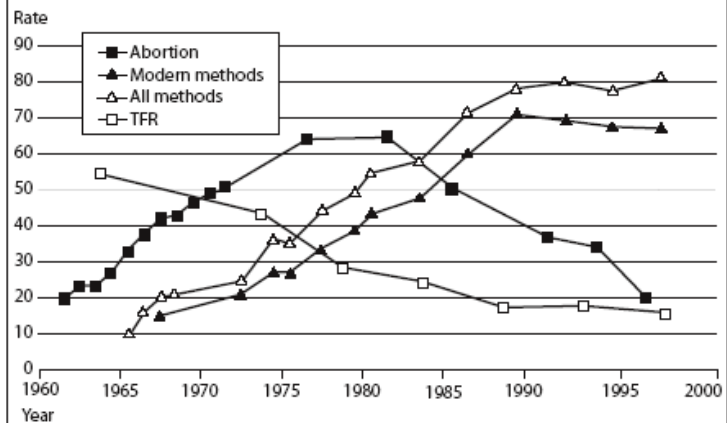
Fig 1: Percent distribution of women using modern contraceptives in sub-Saharan Africa, by type of method in 2003, 2008 and 2012.



Source: Figure assembled by author using data from: Darroch & Singh, 2013 (Table 4).

Fig 2: Relationship between fertility, contraception and abortion. Korea, 1960-2000.

FIGURE 5. Trends in abortion rate, use of modern methods, use of all methods and total fertility rate, Republic of Korea, 1960–2000



Sources: **Abortion**—reference 17; and Tietze C, 1979 (reference 19). **Contraception**—United Nations (UN), 1998 (reference 19). **Total fertility rate**—UN, 2003 (reference 20); and Ross JA, Mauldin WP and Miller VC, 1993 (reference 19).

Source: Marston & Cleland, 2003.