

REVIEW ARTICLE

Abortion and Contraceptive Use in Sub-Saharan Africa: How Women Plan Their Families

Don Lauro

Davis, California

For correspondence: Email: don_lauro@csx.com

Abstract

Based on available evidence, this review article posits that contemporary use of abortion in sub-Saharan Africa often substitutes for and sometimes surpasses modern contraceptive practice. Some studies and some data sets indicate that this occurs not only among adolescents but also within older age groups. In several sub-Saharan cities, particularly where contraceptive use is low and access to clinical abortion is high (though largely illegal), abortion appears to be the method of choice for limiting or spacing births. Even in rural areas, women may regularly resort to abortion, often using extremely unsafe procedures, instead of contraception. Available data seem to indicate that relatively high levels of abortion correlate with low access to modern contraception, low status of women, strong sanctions against out-of-wedlock pregnancy, traditional tolerance of abortion, and availability of modern abortion practices. Abortion has been and will likely continue to be used to plan families within much of sub-Saharan Africa (*Afr J Reprod Health* 2011; 15[1]: 13-23).

Résumé

L'emploi des contraceptifs : Connaissance, perceptions et attitudes des jeunes réfugiés dans le camp de réfugiés Based on available evidence, this review article posits that contemporary use of abortion in sub-Saharan Africa often substitutes for and sometimes surpasses modern contraceptive practice. Some studies and some data sets indicate that this occurs not only among adolescents but also within older age groups. In several sub-Saharan cities, particularly where contraceptive use is low and access to clinical abortion is high (though largely illegal), abortion appears to be the method of choice for limiting or spacing births. Even in rural areas, women may regularly resort to abortion, often using extremely unsafe procedures, instead of contraception. Available data seem to indicate that relatively high levels of abortion correlate with low access to modern contraception, low status of women, strong sanctions against out-of-wedlock pregnancy, traditional tolerance of abortion, and availability of modern abortion practices. Abortion has been and will likely continue to be used to plan families within much of sub-Saharan Africa (*Afr J Reprod Health* 2011; 15[1]: 13-23).

Keywords: Abortion; Contraception; Family Planning; Sub-Saharan Africa

Introduction

Using evidence available from several countries and locales, this paper examines abortion and contraceptive practice in sub-Saharan Africa. Since antiquity, women throughout the world have controlled births by abortion as well as contraception^{1 2 3}. Reliance on both for fertility control continues. Current worldwide estimates are that one-fifth of pregnancies are terminated annually by abortion⁴ and 62% of married women 15-45 use a contraceptive method⁵.

Based on available evidence, this review article posits that contemporary use of abortion in sub-Saharan Africa often substitutes for and sometimes surpasses modern contraceptive practice. Some studies and some data sets indicate that this occurs not only among

adolescents but also within older age groups. In several sub-Saharan cities, particularly where contraceptive use is low and access to clinical abortion is high (though largely illegal), abortion appears to be the method of choice for limiting or spacing births. Even in rural areas, women may regularly resort to abortion, often using extremely unsafe procedures, instead of contraception.

Comparative-use studies of contraception and abortion within sub-Saharan Africa, as well as within other regions, are few. However, available data seem to indicate that relatively high levels of abortion correlate with low access to modern contraception, low status of women, strong sanctions against out-of-wedlock pregnancy, traditional tolerance of abortion, and availability of modern abortion practices. Despite current conventions that contraceptives should be widely

available and abortion rare, the paper concludes that abortion has been and will likely continue to be used to plan families within much of sub-Saharan Africa.

Definitions: The World Health Organization (WHO) defines family planning as the “ability of individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births”. WHO adds that “(family planning) is achieved through use of contraceptive methods and the treatment of involuntary infertility”⁶. This qualification simultaneously extends family planning beyond fertility limitation and places abortion beyond the realm of family planning. Eschewing definitional politics, this paper considers both “contraception” and “abortion” means of fertility control, the one occurring primarily before gestation and the other after.

Fertility Control in sub-Saharan Africa

With modernization, the means to control fertility have become more reliable and much safer. Access to methods as well as motivation to limit fertility has especially increased during the last half of the twentieth century. The result worldwide: total fertility declined by almost half, from 5.0 in 1950-55 to 2.55 in 2005-10⁷. Among the world’s regions, high fertility persists only in sub-Saharan Africa. With less access and motivation than in other regions, sub-Saharan women nevertheless exercise more control over fertility now than in the past. From a high of 6.5 in 1950, total fertility for the subcontinent had declined only to 5.5 by 1999⁸ and to 5.2 by 2010⁹.

Several comprehensive reviews of fertility in Africa summarize findings from previous studies, provide some additional analysis, and draw conclusions on prospects for future decline. A committee of experts, reporting under the auspices of The National Academy of Sciences (NAS) in 1993, sites the traditions of “African social organization—the high value attached to the perpetuation of the lineage; the importance of children as a means of gaining access to resources, particularly land; the use of kinship networks to share the costs and benefits of children, primarily through child fostering; and the weak nature of conjugal bonds—as clearly inhibit(ing) contraceptive adoption and fertility decline.” The Committee also noted, however, that “increased conjugal closeness and decision making” resulting from such modernizing influences as education, economic growth, and urbanization are producing higher levels of contraceptive use¹⁰. (In a separate publication¹¹ the NAS Committee on Population provides a thorough analysis of demographic change in sub-Saharan Africa circa 1990, including analysis of fertility dynamics.)

Makinwa-Adebusoye’s 2001 review of survey data is similarly optimistic about prospects for future fertility decline. Analyzing fertility trends for 31 sub-Saharan and 4 North African countries between the 1960s and 1990s,

Makina-Adebusoye finds modest declines in 12 countries. On this basis, she claims that “a revolution in reproductive behavior (has occurred) in Africa over the last three decades”¹².

Both reviews indicate that economic and social conditions associated with modernization, including diffusion of small family size ideals, are affecting fertility preferences and decision-making. Cohen’s separate multi-country analysis identifies spacing births through modern contraceptive use and later marriage as lead factors for incipient fertility decline in some sub-Saharan countries.¹³ However, the Caldwell’s earlier, alternate view that high fertility persists in sub-Saharan because of unique cultural factors¹⁴ has yet to be countered by sustained or widespread fertility decline. Furthermore, even though sub-Saharan traditions for postpartum abstinence¹⁵ anticipate modern contraceptive use to space births¹⁶, tremendous variation across the continent in cultural traditions and political structures¹⁷ further complicates the spread of modernization.

Several recent papers identify stalls in fertility decline, in such countries as Ghana, Kenya, and Cameroon^{18 19 20 21}. In common with these studies, a 2007 review of falling and stalling fertility²² is based on analysis of trend data from Demographic and Health Surveys (DHS). A more recent analysis by Garenne concludes that stalled fertility continues in these three countries as well as in two other settings, rural Rwanda and rural Tanzania²³.

Table 1 presents recent trends in total fertility rates (TFR) over time for selected countries with DHS time series data. Earlier estimates of TFR are available and as expected higher.²⁴

In general and in common, reviews based on DHS data of fertility change in sub-Saharan do not account for abortion as a means that has been widely used, though much less documented, to limit births in sub-Saharan Africa. Conclusions that modest fertility declines correlate with development progress and subsequent stalls with the lack of progress are not particularly insightful and may be shortsighted as well¹. In sum, the various reviews of sub-Saharan Africa fertility show that there is need for broadening perspectives and approaches to studying reproductive behavior in Africa.

Contraception in sub-Saharan Africa

Use of modern contraceptives as one dimension of fertility change has been studied extensively. Despite significant worldwide increases in contraceptive practice during the latter half of the 20th century, use of modern contraception remains low throughout sub-Saharan Africa. Comparing trends in contraceptive use, in 2007

¹ The health improvements that ushered in long term mortality declines on the continent in the early and mid 20th century would have resulted in some reproductive health improvement as well. Consequently, the 1960s may represent peak fertility levels in these countries, with subsequent declines marking return to traditional levels rather than illustrating incipient fertility decline.

Table 1: Total fertility rates for selected sub-Saharan countries 1986-2009

Country/year	Rate (%)	Country/year	Rate (%)
Benin 2006	5.6	Mali 1995-96	6.6
Benin 2001	5.5	Mali 1987	6.9
Benin 1996	5.8	Namibia 2006-07	3.5
Burkina Faso 2003	5.7	Namibia 2000	4
Burkina Faso 1998-99	6.3	Namibia 1992	5.2
Burkina Faso 1993	6.3	Niger 2006	6.8
Cameroon 2004	4.9	Niger 1998	7
Cameroon 1998	4.7	Niger 1992	6.8
Cameroon 1991	5.7	Nigeria 2008	5.5
Chad 2004	6.3	Nigeria 2003	5.6
Chad 1996-97	6.3	Nigeria 1999	4.6
Cote d'Ivoire 1998-99	5	Nigeria 1990	5.7
Cote d'Ivoire 1994	5.2	Rwanda 2007-08	5.4
Ethiopia 2005	5.2	Rwanda 2005	5.9
Ethiopia 2000	5.4	Rwanda 1992	6
Ghana 2008	4	Senegal 2008-09	4.8
Ghana 2003	4.3	Senegal 2005	5.2
Ghana 1998	4.4	Senegal 1997	5.5
Ghana 1993	5	Senegal 1992-93	5.9
Ghana 1988	6.1	Senegal 1986	6.2
Guinea 2005	5.6	Togo 1998	5
Guinea 1999	5.4	Togo 1988	6.1
Kenya 2008-09	4.5	Tanzania 2004-05	5.6
Kenya 2003	4.8	Tanzania 1999	5.4
Kenya 1998	4.6	Tanzania 1996	5.6
Kenya 1993	5.1	Tanzania 1991-92	6.1
Kenya 1989	6.5	Uganda 2006	6.5
Liberia 2009	5.7	Uganda 2000-01	6.6
Liberia 2007	5.1	Uganda 1995	6.7
Liberia 1986	6.4	Uganda 1988-89	7.2
Madagascar 2008-09	4.8	Zambia 2007	6
Madagascar 2003-04	5.1	Zambia 2001-02	5.7
Madagascar 1997	5.8	Zambia 1996	6
Madagascar 1992	6	Zambia 1992	6.3
Malawi 2004	5.9	Zimbabwe 2005-06	3.7
Malawi 2000	6.1	Zimbabwe 1999	3.9
Malawi 1992	6.4	Zimbabwe 1994	4.2
Mali 2006	6.4	Zimbabwe 1988	5.3
Mali 2001	6.6		

Source: Macro International Inc. MEASURE DHS STATcompiler. <http://www.measuredhs.com>, 2-28-2011

Seiber and colleagues documented the large disparities between sub-Saharan Africa and other regions. Based on 310 surveys from 104 developing countries, Seiber et al. describe trends and shifts from 1980 to 2005 for developing countries in contraceptive use among married women of reproductive age. In the early 1980s more than half of all married women in Asia and Latin America reported high levels of contraceptive use (traditional as

well as modern methods). However, during the same period only 14 percent of married women in sub-Saharan Africa reported use of a method to delay or space births. Twenty-five years later, contraceptive use in Asia and Latin America had reached or surpassed two-thirds compared to just over one-fifth (21.8%) in sub-Saharan Africa.²⁵

Several factors have contributed to the far lower and slower adaptation of contraception in sub-Saharan Africa. A select group of notable scholars² demonstrate deep interest in the dynamics of fertility in sub-Saharan Africa. Collectively their perspectives and other studies on sub-Saharan Africa²⁶ ²⁷ ²⁸ elucidate a number of factors underlying the slow pace of fertility change. These factors include:

- Lower levels of development and governance across sub-Saharan Africa
- Less international investment for family planning on the continent
- Less urbanization
- Lower educational attainment among married women
- Traditional and economic practices that place a high value on having many children.

Though one out of five married sub-Saharan women report intentional effort to plan their families, nearly one-third (30.6%) report use of traditional practices such as post-partum abstinence, breastfeeding, and withdrawal. This is more than any single modern method reported: 25.7% injectables; 18.6% oral contraceptives; 8.3% condom; 6.5% female sterilization; 2.9% IUD; 0.3% male sterilization²⁹. Furthermore, survey respondents may unintentionally conflate traditional contraceptive use with traditional abortion practices.

Abortion in sub-Saharan Africa

That abortion is “spectacularly under-measured and under-researched”³⁰ globally applies to sub-Saharan Africa as well. An estimated 5.6 million abortions occur in Africa annually³¹. Though time-series survey data on contraceptive practices are available for countries throughout sub-Saharan Africa, studies of abortion practices and trends are relatively rare. Moreover, most abortion studies are not population-based.

In the latter half of the 20th century, many countries in different regions legalized abortion for medical and health reasons, to remedy contraceptive failures, and/or as a reproductive right. However, in sub-Saharan Africa abortion remains largely illegal and unsafe. According to a recent compilation on the status of abortion, “Abortion is not permitted for any reason in 14 African countries (and) in nine countries, abortion is generally allowed only to save the life of the woman”³².

In sub-Saharan Africa, only South Africa legalized abortion prior to the 21st century. Five years ago, Ethiopia liberalized its abortion restrictions, thereby opening avenues for safer practices in that country. In addition, in recent years Benin, Chad, Guinea, Mali, Niger,

Swaziland, and Togo have slightly liberalized highly restrictive laws that formerly forbade abortion under almost all circumstances³³. Regardless of such recent changes in legal status, however, induced abortion remains extremely unsafe in almost all sub-Saharan countries³⁴ though often widely available by means of a variety of effective and ineffective procedures.

Quantifying how much abortion is occurring and with what results has been methodologically challenging. However, recent studies in Ethiopia, Nigeria, and Uganda have developed and fielded new approaches. In these countries the Guttmacher Institute, in concert with local research organizations, conducted facility and provider-based surveys. The results were used to derive national level estimates of the prevalence of abortion.

Abortion in Nigeria Uganda and Ethiopia

In Nigeria, the extent and consequences of abortion have concerned leading health professionals for some time³⁵ ³⁶ ³⁷. A population-based survey conducted in the 1990s in two mostly urban, upcountry communities revealed high levels of both unwanted pregnancy and induced abortion. Conducted at a time that national contraceptive prevalence was in the range of 10 percent, this study revealed that among the 20 percent who reported having an unwanted pregnancy, “57.5 percent...stated that they had successfully terminated the pregnancy and another 8.6 percent reported that they had attempted termination but failed”. Other findings from this study indicated that nearly 60 percent reported “that they had the abortions before their first recorded live birth, while 40 percent indicated that the abortions occurred between full-term pregnancies”³⁸.

In 2002-2003 the Guttmacher Institute, in collaboration with the Lagos-based Committee against Unsafe Pregnancy (CAUP), conducted a national health facilities survey as well as some community-level surveys. These data provided the basis for estimating that 760,000 abortions occur per year in Nigeria. One in seven Nigerian women have attempted to have an abortion, one in ten succeeded in ending an unwanted pregnancy, and an estimated one in five pregnancies among Nigerian women is unplanned.³⁹

In 2003, the Guttmacher Institute conducted similar surveys of health facilities and providers in Uganda. This study yielded an estimate of 297,000 induced abortions in Uganda per year, with nearly 85,000 women treated for complications. One in five pregnancies was terminated by abortion.⁴⁰

In 2007-2008 the Guttmacher Institute conducted a similar study “to estimate abortion incidence in Ethiopia, to shed light on the extent to which unsafe abortion is occurring and to estimate the level of use of legal abortion procedures following the 2005 change in the abortion law and the 2006 Ministry of Health safe abortion guidelines”. Using data collected from facilities and health professionals, the total number of abortions in 2008 was estimated to be 382,000, yielding an abortion

² The careers and publications of John and Pat Caldwell; Etienne van de Walle; Allan Rosenfield; and Fred Sai on fertility behavior and change in sub-Saharan Africa have influenced the author's summative analysis of factors related to the slowness of fertility change.

rate of 23 per 1000 women aged 15-44. In all, the study estimated that one abortion is performed for every eight births.⁴¹

The Ethiopia study is notable for refinements in estimation procedures. Additional efforts were also made to document levels of morbidity in the aftermath of abortion⁴². In addition, greater attention has been given to comparative assessment between abortion and contraceptive levels. Rapid increase in contraceptive prevalence (e.g., DHS data document modern method use increased from 6% to 14% between 2000 and 2005) is offered to explain the somewhat lower levels of abortion in Ethiopia than WHO regional estimates⁴³.

Taking into account the levels of abortion and contraceptive use, abortion may well be the modern method most widely used to avoid childbirth in these three countries. To explore this further, the next section provides some comparisons between contraceptive use and abortion, including findings from a number of micro-level field studies. The latter, applying anthropological approaches and conducted mostly in West Africa, yield insights on women's decision-making around contraception and abortion.

Contraception and Abortion Comparisons in sub-Saharan Africa

For the three countries where national-level abortion studies have been conducted, some interesting comparisons can be made with contraceptive use as reported in Demographic and Health Surveys. Measures and methods for comparative analysis of contraception and abortion are not fully developed. Nevertheless, data on ever-use provide relative measures of life-time experiences with contraception and abortion respectively. In Nigeria, for example, less than 20% of women report ever having used a modern contraceptive⁴⁴ compared to just under 15% ever having had an abortion. In Uganda, where 20% of pregnancies end in induced abortion, current use of modern contraception is only 15%.⁴⁵ In Ethiopia, DHS "data indicate that 18 percent of all women and 24 percent of currently married women have used a method at some time"⁴⁶, compared to 13% who report ever having had an abortion. Addis Ababa, Ethiopia's capitol and largest city, is particularly interesting: the abortion rate in "Addis Ababa (49 per 1,000) was twice the national average"⁴⁷, providing partial explanation for rapid decline to low fertility in that city.

Table 2 below provides contraceptive prevalence and abortion use rates for selected countries. A recent World Bank study on the costs of fertility regulation compares the costs of contraception and abortion in select settings. As one of several stated objectives, the study attempted "to explore ... the roles of contraception and induced abortion in fertility regulation, looking at both the supply and demand aspects". The report includes case studies of two countries from contrasting regions: Kazakhstan and Nigeria. Acknowledging lack of data on abortion in

Africa, available data for Nigeria is used to estimate the costs of post-abortion care only. The study concludes that increased access to modern family planning services would be a better investment than what it currently costs to provide post-abortion care.⁴⁸ However, the study does not account for health and life-saving benefits of these interventions nor behavioral factors associated with decisions to use contraception versus abortion.

In contrast to the dearth of abortion data included in regional and country-level studies of fertility, several micro-level field studies over the last 10 years have examined interactions between abortion and contraceptive use in selected sub-Saharan settings. Within place-based limits, these studies reveal that women appear to sometimes use abortion instead of contraception in a number of sub-Saharan settings. As sources of information about how and why women choose among alternatives to control fertility, these studies are examined in some detail.

In a series of articles, Guillaume^{49 50 51} has brought attention to abortion and contraception in urban Cote d'Ivoire. Based on in-depth interviews conducted in four health centers in Abidjan, Guillaume examines how abortion and contraception compete. Provision of abortion within public health facilities in a country where abortion is strictly illegal likely occurs in many other places across the continent.³ Guillaume concludes that in the context of poor access to contraception and changing desires about family size "recourse to abortion is likely to continue and to be used as a substitute for contraception"⁵², which may also partially explain fertility declines observed in other African cities.

In neighboring Burkina Faso, Rossier and colleagues similarly found that abortion was widely used: "40 abortions per 1000 women aged 15-49 each year in Ouagadougou." Citing studies done in other West African cities showing similarly high levels, estimates from the rural area also studied were considerably lower, 12 abortions per 1000 women of reproductive age.⁵³ In a related article, the lead author puts these estimates in context: "a 'low' yearly abortion rate of about 10 abortions per 1000 women of reproductive age still means that about one woman in four will have an abortion in her life in the absence of repeat abortion."⁵⁴

Contrasting abortion levels in rural areas with the use of modern contraception, Rossier found that "only 6.6% of all women who ever had sex were currently using modern contraception ... in 2000" ..., although this village had been the site of an experimental community distribution family planning program in 1996-98⁵⁵. With only one out of eighteen rural Burkinabe women

³ Nor is clandestine provision of clinical abortion in public health facilities in countries where it is illegal new: a team the author worked with on operations research projects in Africa in the 1980s had many direct observations or first hand reports of such practices. For example, an intern at the medical school teaching hospital in Abidjan confided that as many as fifty induced abortions were performed nightly in that facility.

Table 2: Contraceptive prevalence and abortion use rates for selected countries

Country/year	Any method	Any modern method	Any traditional or folk method	Abortion Rate (per 1000 women 15-44)
Benin 2006	17.2	6.9	10.3	
Burkina Faso 2003	14	9.8	4.1	
Cameroon 2004	26.1	13.5	12.5	
Ethiopia 2005	10.3	9.7	0.7	23 (2010)
Ghana 2008	19.3	13.5	5.9	
Guinea 2005	10.5	6.8	3.6	
Kenya 2008-09	32	28	4.1	
Lesotho 2004	29	27.6	1.4	
Madagascar 2008-09	31.7	23	8.7	
Malawi 2004	25.7	22.4	3.3	
Mali 2006	7.5	6.2	1.2	
Mozambique 2003	25.6	21.6	4	
Namibia 2006-07	46.6	45.7	0.9	
Niger 2006	10	4.5	5.5	
Nigeria 2008	15.4	10.5	4.9	25 (2006)
Rwanda 2007-08	23.9	16.3	7.7	
Sierra Leone 2008	10.2	8.2	2	
Tanzania 2004-05	22.5	17.6	4.9	
Uganda 2006	19.6	15.4	4.1	54 (2005)
Zambia 2007	29.9	24.6	5.3	
Zimbabwe 2005-06	40.1	39.1	1.1	

Sources: Macro International Inc, February 28 2011 for contraceptive prevalence rates and Singh et al.2006; Bankole, et al. 2006; and Singh et al. 2010 for abortion rates

practicing modern contraception, clearly abortion is being used to a comparatively great extent.

Citing her own work as well as that of others, Rossier delves deeper into the underlying and shifting attitudes towards abortion: "Though severely condemned as shameful, ... [abortions] are tolerated in private, ... [they] become a way of 'avoiding shame' (Bleek 1981⁵⁶), of preventing an illegitimate pregnancy from being revealed by a shameful birth; abortion is 'the lesser shame' (Johnson-Hanks 2002⁵⁷)."⁵⁸ Rossier goes on to explain this ambiguity first in practical and then in more metaphysical terms:

"This relative tolerance towards abortion is also facilitated by the fact that in local perceptions of reproduction, life is seen as starting rather late in the pregnancy (Renne 1996⁵⁸). Besides, life and death are seen as cyclical in traditional African societies: a birth is the passage of a spirit from the world of the dead to the world of the living; the spirit goes back to the other world when a person dies, and will return to the world of living with the birth of another person (Bonnet 1994⁵⁹, Bruyer 1997⁶⁰). Our own qualitative investigation (Rossier 2002⁶¹) showed that in this vision of life and death, an abortion is an act that sends back to the other world a spirit who wanted to

*return; an abortion does not prevent him or her from coming back some other time, in another pregnancy. Abortion is thus not seen as a final solution, as a murder."*⁶²

Interestingly, Rossier finds that attitudes towards abortion as well as modern contraception are shifting in ways that are at variance with actual behavior and practice. Even though abortion levels are higher in Ouagadougou than in the rural community studied, in the urban setting a shift to more negative attitudes towards abortion is occurring. The reason "seems to lie in a different perception of the beginning of life: city dwellers seem to have adopted an individualistic representation of life, where each life is unique, starts right after fertilization, and ends with death: induced abortion has become a murder."⁶³ Even as such attitudes towards abortion arise, countervailing attitudes appear as well:

*"The combination of these different changes explain why the practice of abstinence is on the decline (new conjugal ideals), why contraceptive use is not diffusing faster (ideals about premarital abstinence are slower to change), why accidental pregnancies and thus induced abortion are on the rise, and why at the same time, attitudes to abortion have become more conservative (rising individualistic ideals)."*⁶⁴

Johnson-Hanks' study in southern Cameroun also gives attention to contradictions between abortion attitudes and practices arising from modernization. Concentrating on educated women, her study reveals a similar balancing between shame and necessity found elsewhere. While in this setting a wide variety of non-marital relationships are socially tolerated, childbearing outside of marriage is not. Johnson-Hanks' informants, "including those who reported having aborted, say that abortion is shameful... they view its moral and social consequences as less grave than those of a severely mistimed entry into socially recognized motherhood. That is, abortion persists in southern Cameroon because it is the lesser shame."⁶⁵ Implicit in many of the qualitative findings is that competition between abortion and contraception is particularly relevant to young women and others not in marital relationships. Johnson-Hanks cites Shapiro and Tambashe's 1997 study⁶⁶ in Kinshasa as an illustration of the complicated interactions between educational attainment and contraceptive or abortion decisions: "In Kinshasa, with the most highly educated women using contraception instead of abortion to avert births, and moderately educated doing the opposite."⁶⁷

Two other articles based on studies in Guinea and Ghana respectively bring attention to use of herbs in traditional societies to regulate menstruation and effect abortion. As is the case in other sub-Saharan countries, Arnafi points out that national level surveys in Ghana have been deficient on abortion and in uncovering such practices. Based on relevant literature as well as his own studies in Accra and a nearby rural area, Arnafi also notes that "the evidence shows that women from all walks of life—young and old; single, married, or divorced, students and ...profession(als); religious or otherwise—resort to abortion"⁶⁸.

From her studies of contraception in an upcountry community in Guinea, Levin concludes that "in Dabola..., pregnancy is not tied to the moment of implantation; rather a pregnancy is established only when a woman believes she can feel it or can no longer deny it. Therefore, an abortion cannot be possible before the fourth or fifth gestational month". Clearly "there is much more to be learned about intentional fertility management outside of, and prior to, modern contraception"⁶⁹.

Discussion

Women decide to limit fertility for many reasons—the timing and spacing of births; the consequences of pregnancy; the socio-economics of childbearing and child raising; the health and/or age of the pregnant woman. Sometimes deciding whether or not to use contraception is very similar to opting for an abortion; other times it is a far different calculus. When pregnancy results from contraceptive failure or forced or unwanted sex, abortion is the only recourse if a birth is to be avoided. However, abortion may also substitute, albeit belatedly, for contraception, particularly when access to contraception is circumscribed or limited.

Whether seen as a right, a choice, or an abomination, abortion has a long history where women with few options risked their lives rather than bring a pregnancy to term. Traditional abortion practices, including herbs and uterine manipulations, have long been available. These have been supplemented over the last 50 to 100 years by use of chemicals such as laundry bluing. (For an interesting history and categorization of abortion practices in the northern Nigeria town of Zaria, see Renne⁷⁰). With the spread of the Western medical model, modern abortion practices, by dilation/curettage and vacuum aspiration, have become available in some hospitals and clinics. Of particular interest may be shifts that occur as new abortion practices and techniques emerge (see Santow⁷¹): some safer than traditional practices, others less so. For example, most recently misoprostal, a safe, medical alternative to traditional practices as well as clinical procedures, is rapidly spreading across sub-Saharan Africa.

To the extent that women are able to access modern procedures, abortion risk has declined and safety has increased. Even where induced abortion is illegal, many modern hospitals and clinics provide post-abortion care where safe practices are used to complete spontaneous as well as induced abortions. Furthermore, especially where the practice remains highly restricted, abortion performed within modern facilities is often available to those able to access the higher echelons of medical service. However, many women still resort to backstreet and traditional practices under a variety of conditions with sometimes dire consequences. Given the estimate that worldwide 13% of prevailing high maternal mortality is attributed to unsafe abortion, clearly for sub-Saharan Africa liberalization of abortion laws and providing access to safe procedures would have even greater impact, as much as 25% in some countries (WHO cited in Chowdhury and Axemo⁷²).

Beyond sub-Saharan Africa, a few notable studies have compared abortion with contraceptive decision-making in selected countries where abortion is legal, unrestricted, and widely available. For example, a review of data from 12 countries⁴, many formerly in the Soviet Union, suggests an inverse relationship between abortion and contraception: as access to contraception increases, use of abortion declines. As the study concludes, "there is strong evidence that modern contraceptive methods are replacing abortion as the primary means of family planning"⁷³. Similarly, based on data from 60 countries, Sedgh and colleagues found that though the "abortion

⁴ "Armenia, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Moldova, Romania, Russia, Turkey, Turkmenistan, Ukraine, and Uzbekistan—where abortion had long been a major if not the principal method of birth control... (Using) a series of simulation models, the (study found)... (f)or example, if the women currently using modern methods of contraception were joined by those currently using traditional methods, abortion rates on average could be reduced by 23 percent; if women classified as having unmet need for family planning were also added to this group, abortion rates could be reduced by as much as 55 percent" (see backnote reference #66, p.1).

rate varies widely across the countries in which legal abortion is generally available [it] has declined in many countries since the mid-1990s⁷⁴. This review goes on to note that while some “studies (see Westoff (2005)⁷⁵; Marston and Cleland (2003)⁷⁶) have demonstrated that abortion levels are strongly linked to contraceptive use patterns...[r]esearch on the association between abortion trends and trends in unmet need for contraception, availability of family planning services, desired family size and fertility rates [is needed]”⁷⁷.

As shown in this paper, prevalence of abortion has been rigorously studied in only three sub-Saharan African countries. Large, long-term investments to measure country-level fertility, such as the World Fertility Study and subsequently the Demographic and Health Surveys, have concentrated on contraception and largely ignored abortion. Except for a few anthropological and other micro-level studies, mostly in West Africa, abortion is largely excluded from studies of fertility in sub-Saharan Africa. Why has abortion received such scant attention?

Fifty years ago, at the beginning of international funding for family planning in developing countries, “Among birth control methods, induced abortion is known to occupy a very important place in every country. Its role in family planning varies, however, and is measured with different degrees of accuracy according to its legality in the country involved”⁷⁸. These data difficulties have largely continued up to the present. Uncovering such personal, often clandestine, practices is clearly challenging methodologically. However, this does not fully explain or excuse researcher reticence to study abortion, particularly in sub-Saharan Africa where large numbers of women regularly risk their lives rather than continue pregnancy.

Purse strings linked with policies provide mechanisms for directing research as well as programs. Over the last thirty years and particularly in the US, abortion, always controversial, has also become political. Since 1982, alternating administrations have led to corresponding changes in support for abortion research and programs. A telling imposition on US-funded research and programs during the Reagan and Bush administrations led to avoiding or excising even the word “abortion” in reports and communications. Periodic prohibitions against abortion in the US during recent decades have led to deficiencies in fertility research as well as shortcomings in reproductive health services.

Ethical dispute has affected not only what is funded but also how researchers view and sometimes eschew abortion. Not only is continuity lost, but some researchers also avoid, either with forethought or unwittingly, addressing abortion within broader studies of fertility. Government control over research and researchers seems to have extended beyond specific time frames and borders. Long periods of policy prohibition may have led

many researchers to engage in self-censorship on abortion even when far removed from government funding restrictions.

Conclusion

This paper has provided some perspective on intersections between abortion and modern contraception in sub-Saharan Africa. It has included regional reviews of sub-Saharan fertility, within which abortion is largely ignored, as well as several national and small-scale fertility studies, where abortion is in focus. National-level estimates in Ethiopia, Nigeria, and Uganda uncover high levels of abortion, in the range of 23⁷⁹ to 54⁸⁰ per 1000 women aged 15-44. Anthropological and other field studies cited in this paper similarly show that abortion is a viable birth control option, particularly where there is low access to or unwillingness to use modern contraception.

In some sub-Saharan settings, qualitative approaches applied in micro-level studies have helped reveal the complexities around abortion. These studies show that attitudes about abortion in sub-Saharan Africa may diverge from actions and practices. As perhaps is also the case among many throughout the world, abortion may be considered shameful; in reality, it is often embraced as necessary.

Many means are used to control fertility, across a continuum that extends from abstinence and contraception on the one side to infanticide and child neglect on the other. However, the ethical divide on abortion has led some research to privilege behavioral proscription over understanding actual behavior. What has occurred as a result is failure to recognize that in many societies abortion has been (and in some societies continues to be) both a first and last resort for controlling fertility.

Affiliations

After successive 10-year positions at Columbia University; John Snow, Inc.; and the David and Lucile Packard Foundation; Don Lauro currently works as an independent consultant based in Davis, California.

Acknowledgements

Inspired by the careers of Allan Rosenfield and Jack Caldwell to increase understanding of fertility and family planning, this paper benefited from research assistance by Huang Nguyen for an initial draft and comments from Peter Donaldson on later drafts.

References

- 1 Himes NE. *Medical History of Contraception*. New York: Williams and Wilkens, 1936.
- 2 Devereux G. *A Study of Abortion in Primitive Societies*. New York: International Universities Press, (revised edition) 1976.
- 3 Riddle J.M. *Eve's Herbs: A History of Contraception and Abortion in the West*. Massachusetts: Harvard University Press, 1997.
- 4 Guttmacher Institute and the World Health Organization. Facts on Induced Abortion: Worldwide Incidence and Trends. October 2008.
- 5 Population Reference Bureau, World Population Data Sheet: 2010, Washington D.C., 2010.
- 6 WHO. Health Topics: Family Planning. http://www.who.int/topics/family_planning/en/ (retrieved January 26, 2011).
- 7 United Nations. Department of Economics and Social Affairs. *World Population Prospects: Comprehensive Tables*. 2006.
- 8 United Nations Fund for Population. *The State of the World Population*, 1999, p.19.
- 9 Population Reference Bureau, *op. cit.*
- 10 National Academy of Science, National Research Council. *Factors Affecting Contraceptive Use: Population Dynamics of Sub-Saharan Africa*, Committee on Population. Washington, D.C.: National Academy Press, 1993.
- 11 Foote KA, Hill KH, and Martin L. (eds.) *Demographic Change in Sub-Saharan Africa*. Washington DC: National Academy Press, 1993.
- 12 Makinwa-Adebusoye P. Sociocultural factors affecting fertility in Subsaharan Africa. *Population Bulletin of the United Nations* 2002, Nos 46/47: 55-69.
- 13 Cohen B. The emerging fertility transition in sub-Saharan Africa. Washington, DC: National Research Council, 1998.
- 14 Caldwell JC and Caldwell P. The cultural context of high fertility in sub-Saharan Africa. *Population and Development Review* 1987;13(3): 409-437.
- 15 Schoenmaeckers R, Shah IH, Lesthaeghe R, and Tambahe O. The child-spacing tradition and the post-partum taboo in tropical Africa: anthropological evidence. In Page HJ and Lesthaeghe R. (eds.) *Child-Spacing in Tropical Africa: Traditions and Change*. London: Academic Press, 1981.
- 16 Lauro D. A village perspective from two continents: some implications for differential fertility behaviour. In: Caldwell JC. (Ed.) *The Persistence of High Fertility*. Canberra: Australia National University Press, 1977: 729-764.
- 17 Lesthaeghe, RJ. (Ed) *Reproduction and Social Organization in Sub-Saharan Africa*. Berkeley: University of California Press, 1989.
- 18 Bongaarts J. The causes of stalling fertility transitions. Paper presented at the IUSSP International Population Conference. Tours, France, July 2005.
- 19 Bongaarts J. Fertility transition in the developing world: progress or stagnation? Paper presented at the Annual Meeting of the Population Association of America, New York, NY, March 2007.
- 20 Garenne M and Joseph V. The timing of the fertility transition in Sub-Saharan Africa. *World Development* 2002, Vol. 30, No. 10: 1835-1843.
- 21 Westoff CF and Cross AR. The stall in the fertility transition in Kenya. Paper presented at the IUSSP International Population Conference. Tours, France, July 2005.
- 22 Shapiro D and Gebreselassie T. Fertility transition in Sub-Saharan Africa: falling and stalling. Paper presented at the Annual Meeting of the Population Association of America, New York, NY, March 2007.
- 23 Garenne M. Situations of fertility stall in sub-Saharan Africa. *African Population Studies* 2008;23(2).
- 24 Hill A. Population Conditions in Mainland Sub-Saharan Africa, in Ascadi GTF, Johnson-Ascadi G, and Bulatao R. (eds.) *Population Growth and Reproduction in Sub-Saharan Africa*. World Bank: Washington DC, 1990: 2-27 (TFR Table on p. 24).
- 25 Seiber EE, Bertrand JT, and Sullivan TM. Changes in contraceptive method mix in developing countries. *International Family Planning Perspectives* 2007; 33(3):117-123.
- 26 Caldwell JC and Caldwell P. Cultural Forces Tending to Sustain High Fertility in Tropical Africa. PHN Technical Note 85-16. Population Health and Nutrition Department, World Bank: Washington DC, 1985
- 27 Van de Walle E. And Foster D. Fertility Decline in Africa: Assessment and Prospects. Technical Paper Number 125, World Bank: Washington DC, 1990.
- 28 Agyei-Mensah S and Casterline JB. (Eds.) Introduction and Social Context in Sub-Saharan Africa: A Collection of Micro-Demographic Studies. Westport, Connecticut: Greenwood Press 2003.
- 29 Seiber, et al. *op. cit.*: 119, Table 3.
- 30 Caldwell JC and Caldwell P. Introduction: induced abortion in a changing world. In Basu, AM. (Ed.) *The SocioCultural and Political Aspects of Abortion: Global Perspectives* Westport, Connecticut: Praeger 2003, 1-13 (p.11).
- 31 Guttmacher and WHO, *op. cit.*, p.1 Table.
- 32 Guttmacher Institute. Facts on Abortion and Unintended Pregnancy in Africa. October 2009.
- 33 Boland R and Katzive L. Developments in laws on induced abortion: 1998-2007. *International Family Planning Perspectives* 2008, 34(3): 110-120.
- 34 World Health Organization. Unsafe abortion: global and regional estimates of incidence of unsafe abortion and associated mortality in 2003. (5th ed.) 2007. (See pp.13-16).
- 35 Ladipo, OA, et. al. Menstrual regulation in Ibadan, Nigeria. *International Journal of Gynaecology and Obstetrics*. 1978,15 (5):428 – 432.
- 36 Okonofua F and Ilumoka T. Prevention of morbidity and mortality from induced and unsafe abortion. Proceedings of a seminar organized by the Department of Obstetrics and Gynaecology and Perinatology, Obafemi Awolowo University, Ile-Ife (Nigeria). December 4-6, 1991.
- 37 Konje, JC, Obisesan, KA, and Ladipo, OA. Health and economic consequences of septic induced abortion. *International Journal of Gynaecology and Obstetrics* 1992, 37 (3):193-7.

- 38 Okonofua F, Odimegwu C, Aina B, Daru PH, and Johnson A. Women's Experiences of Unwanted Pregnancy and Induced Abortion in Nigeria: Summary Report. New York: The Population Council, November 1996. (Quotes from p.6 and p.i).
- 39 Bankole A, Oye-Adeniran BA, Singh S, Adewole IF, Wulf D, Hussain, R. *Unwanted Pregnancy and Induced Abortion in Nigeria: Causes and Consequences*. New York: Guttmacher Institute, 2006. (data from pp. 4-5).
- 40 Singh S, Prada E, Mirembe F, and Kiggundu C. The incidence of induced abortion in Uganda. *International Family Planning Perspectives* December 2005; Volume 31, Number 4: 183-191 (data from p. 183).
- 41 Singh, S, Fetters T, Gebreselassie H, Abdella A, Gebrehiwot Y, Kumbi S, and Audam S.. The estimated incidence of induced abortion in Ethiopia: 2006. *International Perspectives on Sexual and Reproductive Health* 2010; 36(1):16-25. (quote and data from p.16-7).
- 42 Gebreselassie H, Fetters T, Singh S, Abdella A, Gebrehiwot Y, Tesfaye S, Takele G and Kumbi S. Caring for women with abortion complications in Ethiopia: national estimates and future implications, *International Perspectives on Sexual and Reproductive Health* 2010; 36(1):6-15.
- 43 Singh, et al., 2010; *op. cit.*: 22.
- 44 Data – Nigeria 2003: Results from the Demographic and Health Survey. *Studies in Family Planning* March 2008; 39(1): 79-84.
- 45 Uganda Demographic and Health Survey, 2006. Uganda Bureau of Statistics (Kampala, Uganda) and Macro International (Calverton, MD).
- 46 Central Statistical Agency [Ethiopia] and ORC Macro. Ethiopia Demographic and Health Survey 2000. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Agency and ORC Macro. 2006. (p.59)
- 47 Singh, et al., 2010; *op. cit.*:21.
- 48 Lule E, Singh S, and Chowdhury SA. Fertility Regulation Behaviors and Their Costs: Contraception and Unintended Pregnancies in Africa and Eastern Europe & Central Asia. *Health Population and Nutrition Discussion Paper*. 2007, Washington DC: World Bank. (quote from p.3).
- 49 Guillaume A, Desgrées du Loû A, Koffi N, and Zanou B. Le recours a l'avortement: la situation en Cote d'Ivoire. ENSEA/IRD, Abidjan, Ivory Coast. 1999.
- 50 Guillaume A "Abortion in Africa: a birth control method and a public health issue"; CEPED NEWS 2000; (8):1-4.
- 51 Guillaume A and Desgrées du Loû A. Fertility regulation among women in Abidjan, Cote d'Ivoire: contraception, abortion or both? *International Family Planning Perspectives*, 2002, 28(3):159-166.
- 52 Guillaume A. The role of abortion in the fertility transition in Abidjan (Cote d'Ivoire) during the 1990s. *Population* 2003;58(6):657-685.
- 53 Rossier C, Guiella G, Ouédraogo A, and Thiéba B. Estimating clandestine abortion with the confidants method. Results from Ouagadougou, Burkina Faso." *Social Science and Medicine* 2006; 62(1):254-266.
- 54 Rossier, C. Attitudes towards abortion and contraception in rural and urban Burkina Faso. *Demographic Research* 2007; 17: Article 26: 23-58 (quote from p.28) (<http://www.demographic-research.org/Volumes/Vol17/2/>).
- 55 *Ibid.*:28-29.
- 56 Bleek W. Avoiding shame: The ethical context of abortion in Ghana. *Anthropological Quarterly* 1981; 54(4): 203-209.
- 57 Johnson-Hanks J. The lesser shame: abortion among educated women in southern Cameroon. *Social Sciences and Medicine* 2002; 55: 1337-1349.
- 58 Renne E. The pregnancy that doesn't stay: The practice and perception of abortion by Ekiti Yoruba women. *Social Science and Medicine* 1996; 42(4): 483- 494.
- 59 Bonnet D. L'éternel retour ou le destin singulier de l'enfant. *L'Homme* 1994; 34(3): 93-110.
- 60 Bruyer A. Comment l'esprit va au mort. De la constitution des principes de la personne jusqu'à leur agencement post mortem. *Social Anthropology* 1997; 5(3): 293-311.
- 61 Rossier C. *Measure and meaning of induced abortion in rural Burkina Faso*. Unpublished PhD dissertation. UC Berkeley: Demography, 2002.
- 62 Rossier, 2007 ; *op. cit.*: 28.
- 63 Rossier, 2007 ; *op. cit.*: 30-31.
- 64 Rossier, 2007 ; *op. cit.*: 51.
- 65 Johnson-Hanks; *op. cit.*: 1348.
- 66 Shapiro D, Tamashe BO. Education, employment, and fertility in Kinshasa and prospects for changes in reproductive behavior. *Population Research and Policy Review* 1997; 16, no.3: 259-87.
- 67 Johnson-Hanks J. *Uncertain Honor: Modern Motherhood in an African Crisis*. Chicago, Illinois: University of Chicago Press, 2005. (quote from p. 201).
- 68 Anarfi JK. The role of local herbs in the recent fertility decline in Ghana: contraceptives or abortifacients. In Basu AM (ed.) *The Sociocultural and Political Aspects of Abortion*. Westport, Connecticut: Praeger, 2003: 139-151 (Quote from p. 143; also see pp. 140; 147-48).
- 69 Levin E. Cleansing the belly: managing menstrual health in Guinea, West Africa. Chapter 6 (pp. 103-118) In Basu AM (Ed.) *The Sociocultural and Political Aspects of Abortion*. Westport, Connecticut: Praeger, 2003: 139-151 (Quotes from pp. 115 and 116).
- 70 Renne, E. Changing assessments of abortion in a northern Nigeria town. In Basu AM (Ed.) *The Sociocultural and Political Aspects of Abortion*. Westport, Connecticut: Praeger, 2003: 119-138. pp 21-24.
- 71 Santow G. Emmenagogues and abortifacients in the twentieth century: an issue of ambiguity. In Van de Walle E and Renne EP. *Regulating Menstruation: Beliefs, Practices, Interpretations*. Illinois: The University of Chicago Press. 2001: 64-92.
- 72 Chowdhury SA and Axemo P. Introduction and executive summary (chapter one). In Lule E. et al. *Fertility Regulation Behaviors and Their Costs: Contraception And Unintended Pregnancies in Africa and Eastern Europe & Central Asia*. Washington DC: World Bank. 2007. (WHO citation on p. 1).

- 73 Westoff CF. Recent Trends in Abortion and Contraception in 12 Countries. (DHS Analytical Studies No. 8) Calverton, Maryland: ORC Macro, February 2005.
- 74 Sedgh G, Henshaw SK, Singh S, Bankole A.; and Drescher J. Legal abortion worldwide: incidence and recent trends. *International Family Planning Perspectives* 2007; 33(3): 106-116.
- 75 Westoff; *op. cit.*
- 76 Marston C and Cleland J. Relationships between contraception and abortion: a review of evidence. *International Family Planning Perspectives* 2003; 29(1):6-13.

-
- 77 Sedgh, et al.; *op. cit.*: 113-4.
- 78 Klinger A. Abortion Programs. In Berelson B, et al. *Family Planning and Population Programs: A Review of World Developments*. Illinois: The University of Chicago Press, 1966:465-476 (quote from page 465).
- 79 Singh, 2010; *op. cit.*:16
- 80 Singh, 2006; *op. cit.*:183

