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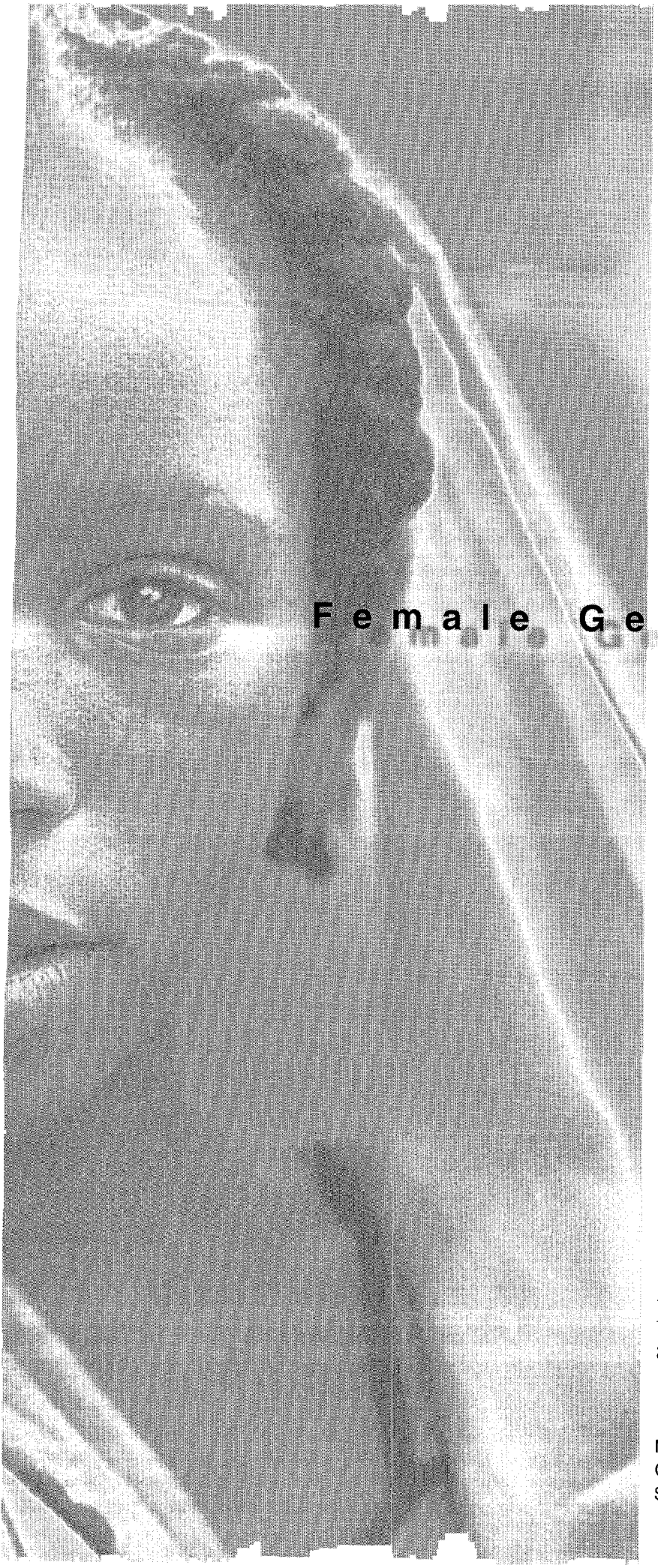

Female Genital Cutting

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Findings from the Demographic and Health Surveys Program

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Introduction

Although female genital cutting has been the focus of international attention and disapproval in recent years, there has been little scientific research documenting the extent of its practice and support among women in Africa and elsewhere. Until the 1990s, Sudan was the only country with reliable large-scale survey data on the prevalence of genital cutting among women (Toubia, 1995; World Health Organization, 1996b). This report presents some of the first national level information on genital cutting, with the objective of fostering data-based discussion and decisionmaking among policymakers, program implementers, and other interested audiences. This analysis also aims at illuminating the challenges that remain ahead for those groups developing programs addressing genital cutting. Although international conference statements suggest widespread consensus against genital cutting, the survey findings often portray a more complicated reality of high prevalence levels and widespread support for these practices among women.

In this report, survey findings on genital cutting will be presented from the Central African Republic (CAR), Côte d'Ivoire, Egypt, Eritrea, Mali, northern Sudan, and Yemen.[1] These surveys were conducted between 1989 and 1996 by national organizations under the auspices of the Demographic and Health Surveys (DHS) Program.[2] The DHS Program is funded by the U.S. Agency for International Development.

Terminology

In this report, the term *female genital cutting* (FGC) (Eliah, 1996) is used to describe medically unnecessary procedures that involve the:

- Partial or complete removal of the clitoris (clitoridectomy);
- Removal of the clitoris and partial or complete removal of the labia minora (excision); and
- Partial or complete removal of any external genitalia, with stitching or narrowing of the vaginal opening (infibulation).

This classification is based on a typology of genital cutting procedures developed by the World Health Organization (World Health Organization, 1996a). The WHO typology also includes a fourth category, which covers an array of harmful procedures such as piercing, stretching or tightening of the female genitalia.

In surveying women about genital cutting, DHS uses locally recognized terms in a number of languages. Local terminology can vary considerably, depending upon region and ethnicity. Procedures involving genital cutting are known by many names, including (in English) sunna, intermediate, and pharaonic circumcision; clitoridectomy; excision; and infibulation.

Many organizations and governments, taking their lead from United Nations policy documents and conference statements, refer to all of these procedures as *female genital mutilation* (FGM).

[1] The data presented are from special tabulations of DHS data sets as well as the following DHS survey reports: (CAR) Ndamobissi et al., 1995; (Côte d'Ivoire) Sombo et al., 1995; (Egypt) El-Zanaty et al., 1996; (Eritrea) National Statistics Office and Macro International, 1997; (Mali) Coulibaly et al., 1996; (Northern Sudan) DOS and IRD, 1991; (Yemen) Central Statistical Organization et al., 1994.

[2] The 1991/1992 Yemen Demographic and Maternal and Child Health Survey was part of both the Demographic and Health Surveys (DHS) Program and the Pan Arab Project for Child Development (PAPCHILD).

FGM, while commonly used in the international arena, is not always accepted in the communities where these practices are widespread. Although the term "female circumcision" is still frequently used, few international or regional organizations currently use it. A number of researchers argue that because the term "circumcision" is used to describe a specific male procedure, which is less invasive, the term "female circumcision" obscures the more serious physical and psychological effects of genital cutting on women. Analogous operations for men would involve the partial or complete removal of the penis rather than just removal of the foreskin.

Why investigate genital cutting?

For years, the adverse effects of cutting on women have been documented by doctors, colonial administrators, social scientists, and activists. As early as the 1940s, a national movement against infibulation was underway in Sudan, with colonial law prohibiting its practice and professional Sudanese women raising public awareness of its risks (Gruenbaum, 1982). The attention granted female genital cutting among governments and donors, however, is a relatively recent phenomenon. Over the past 30 years, activists and medical professionals have successfully defined genital cutting as a reproductive health and human rights issue meriting international consideration. In Africa, for example, leaders that have recently spoken out against genital cutting include the presidents of Benin, Burkina Faso, Egypt, Kenya, and Senegal (Kiragu, 1995). American opposition to cutting has recently been formalized by federal legislation prohibiting its practice on minors and by USAID's expanded mandate to support eradication efforts internationally (RAINBO, 1997).

United Nations agencies, through conferences and policy statements, have raised public awareness and encouraged the eradication of genital cutting. These excerpts from the *Report of the International Conference on Population and Development* (UNFPA, 1994) urge governments to take action against genital cutting:

> 4.22. Governments are urged to prohibit female genital mutilation wherever it exists and to give vigorous support to efforts among non-governmental and community organizations and religious institutions to eliminate such practices; and
>
> 7.35. ...In a number of countries, harmful practices meant to control women's sexuality have led to great suffering. Among them is the practice of female genital mutilation, which is a violation of basic rights and a major lifelong risk to women's health.

The joint statement on female genital cutting prepared by the World Health Organization, UNICEF, and UNFPA (World Health Organization, 1996a) rejects these procedures based on health, human rights, gender equity, and economic grounds. This excerpt is from the preface:

> "Female genital mutilation (FGM)—sometimes locally referred to as 'female circumcision'—is a deeply rooted traditional practice that adversely affects the health of girls and women. It also reinforces the inequity suffered by girls and women in the communities where it is practised and must be addressed if their health, social, and economic development needs are to be met. The arguments against this practice are based upon universally recognized human rights standards, including the right to the highest attainable level of physical and mental health...It must be clearly and unambiguously stated that the practice is universally unacceptable because it is an infringement on the physical and psycho-sexual integrity of women and girls and it is a form of violence against them..."

When and why did genital cutting begin?

The earliest known writings on the subject suggest that female genital cutting has been practiced in Egypt for at least 2,000 years (Cloudsley, 1983). One Greek physician, writing in the sixth century, praised the Egyptian practice of genital "excision," explaining that unless the clitoris is cut, it will continue to grow and lead to inappropriate thoughts or behavior in young women (Abdalla, 1982). Most theories about the origins of genital cutting suggest that these procedures provided a means for families to safeguard the "value" of women, guaranteeing virginity before marriage and the creation of legitimate heirs during marriage. Some evidence also indicates that slave-traders acquired infibulated women or infibulated female slaves because these women—whose labor would be uninterrupted by childbearing—could be sold for higher prices (Cloudsley, 1983). Overall, no definitive evidence exists documenting exactly when or why genital cutting began.

Genital cutting occurs primarily in Africa. These practices have also been documented among African immigrant communities in a number of countries. As different researchers point out, however, genital cutting is not a practice historically restricted to Africa. As late as the 20th century, various Western physicians believed that a number of mental and physical "disorders" could be treated through the removal of women's external genitalia (Cloudsley, 1983; Van der Kwaak, 1992). In the 1800s, for instance, some doctors theorized that "hysteria" and "lesbianism" could be managed by modifying or removing female genitalia (Toubia, 1995).

Although often perceived to be a Muslim practice, genital cutting predates Islam in Africa. Additionally, genital cutting is not mandated as a religious requirement in the Qur'an. These practices have been documented among women of various faiths, including Christians, Jews, and followers of traditional religions (Toubia, 1995).

DHS Results

Across all seven surveys presented in this report, a total of 55,067 women and 1,114 men were interviewed on female genital cutting. In each country survey, interviewers queried respondents about genital cutting in the context of questions on health and well-being. A standard DHS survey features a series of "core" questions on living conditions, education, fertility, mortality, family planning, and maternal and child health. Each core questionnaire is modified to meet local needs, but retains enough standard elements to allow for comparative research between countries. DHS also has a number of modules on special subjects such as AIDS, maternal mortality, and female genital cutting. The module may be partly or wholly incorporated into a core questionnaire. The decision about whether to include questions on female genital cutting in a DHS survey is made jointly by the implementing institution of the host country (usually a government agency), USAID, and Macro International Inc.

The type of information collected on genital cutting varies. The most extensive data were collected in Egypt. Yemen has the least data on the subject, with only two questions in the Demographic and Maternal and Child Health Survey. A table summarizing the types of information collected from each country is included in Appendix B.

Summary of Surveys			
Country	**Fieldwork**	**Respondents**	**Implementing Institution**
Central African Republic	1994–1995	5,884 women age 15–49	Direction des Statistiques Démographiques et Sociales, Division des Statistiques et des Études Économiques, Ministère de l'Économie, du Plan et de la Coopération Internationale
Côte d'Ivoire	1994	8,099 women age 15–49	Institut National de la Statistique, Ministère Délégué Auprès du Premier Ministre, Chargé de l'Economie, des Finances et du Plan
Egypt	1995	14,779 ever-married women age 15–49	National Population Council
Eritrea	1995–1996	5,054 women age 15–49; 1,114 men age 15–59	National Statistics Office, Department of Macro Policy and International Economic Cooperation, Office of the President
Mali	1995–1996	9,704 women age 15–49	Cellule de Planification et de Statistique, Ministère de la Santé, de la Solidarité et des Personnes Âgées; Direction Nationale de la Statistique et de l'Informatique
Sudan (northern)	1989–1990	5,860 ever-married women age 15–49	Department of Statistics, Ministry of Economic and National Planning
Yemen	1991–1992	5,687 ever-married women age 15–49	Central Statistical Organization

Summary of Findings

This report presents survey findings on female genital cutting from the Central African Republic (CAR), Côte d'Ivoire, Egypt, Eritrea, Mali, Sudan, and Yemen. The surveys were conducted between 1989 and 1996 by national organizations under the auspices of the Demographic and Health Surveys (DHS) Program. The depth and breadth of information collected on genital cutting varies from country to country. In each country, questions on genital cutting were incorporated into standard questionnaires that elicited information from respondents on such topics as living conditions, maternal and child health, fertility, and family planning. Across the seven countries surveyed, representative samples of more than 55,000 women and 1,000 men were interviewed on female genital cutting.

Genital cutting is widespread in the countries surveyed

In the countries surveyed, the practice of genital cutting among women is widespread. The procedures are nearly universal among women in Egypt, Eritrea, Mali, and northern Sudan. In these countries, about nine out of 10 women have had at least some part of their external genitalia removed. Genital cutting is less common in Côte d'Ivoire and the Central African Republic (CAR), with prevalence levels of 43 percent among women ages 15 to 49. Data on prevalence were not collected in Yemen.

These practices affect a substantial number of women and girls. Applying the prevalence levels to recent United Nations population estimates, nearly 30 million women have undergone some form of cutting in the countries surveyed. An additional 21 million girls under the age of 15 are estimated to have undergone cutting already or be likely to undergo cutting in the near future.

Genital cutting occurs among all socioeconomic groups

In the absence of national data, some researchers have speculated that these practices are most common among the less-advantaged members of society, such as rural or uneducated women. In countries with high prevalence levels (≥89 percent), however, there are no substantial differences in levels of cutting among women based on education or residence. For instance, prevalence among Egyptian women with some secondary education is 91 percent, compared with 100 percent among those with no education. Similarly, the difference between urban and rural women is small, with prevalence levels of 94 and 100 percent, respectively.

In CAR and Côte d'Ivoire, countries with lower prevalence levels, families that educate their daughters do appear less likely to adhere to these traditions. In both countries, prevalence levels among women with at least some secondary education are 23 percent. In contrast, roughly half of women with no education have undergone cutting. As with the other countries studied, however, urban women are not substantially less likely to have undergone these procedures than their rural counterparts.

Prevalence levels are often higher among Muslim women

Among the countries surveyed, Muslim women are more likely to undergo genital cutting than Christian women. Although genital cutting predates Islam in Africa and has no clear doctrinal support in the primary texts of Islamic law, genital cutting appears to be a strong cultural tradition among some Muslim groups. In Côte d'Ivoire, for instance, 80 percent of Muslim women have undergone cutting, compared with

16 percent of Christian women. The most striking differences in prevalence according to religion can be seen in Côte d'Ivoire and Sudan. Multivariate analysis conducted on the data from these two countries indicates a statistically significant and powerful relationship between religion and genital cutting even after controlling for a woman's age, educational attainment, and region of residence.

Many women experience the removal of a substantial amount of genital tissue

The little evidence available indicates that many women have a substantial amount of genital tissue removed during these procedures. A 1996 clinical study in Egypt found that more than 70 percent of the study population had at least part or all of their clitoris and labia minora excised. In Eritrea and Sudan, many women undergo infibulation, the most physically hazardous and extensive form of cutting that closes the vaginal area. Among women who have undergone cutting, 85 percent of Sudanese women and 34 percent of Eritrean women reported that they were infibulated.

Traditional practitioners are the most common operators, but medical professionals are also common providers in Egypt and Sudan

The majority of women are operated on by traditional practitioners; however, in Egypt and Sudan, a substantial number of these procedures are performed by medical professionals. The trend toward medicalization of genital cutting appears well underway in Egypt, with mothers increasingly opting to have their daughters operated on by doctors. Among Sudanese women, where infibulation is the most common procedure performed, trained midwives are often the provider of choice.

Women commonly report cutting-related health problems

Medical problems related to genital cutting are a public health issue of some magnitude. A conservative estimate suggests that more than one million women in CAR, Egypt, and Eritrea—the only countries for which such data were collected—experienced adverse health effects due to these procedures. Women in CAR and Eritrea were most likely to report problems. Women in CAR commonly cited hemorrhage as a complication after their operation, while Eritrean women often encountered cutting-related difficulties in delivery and sexual relations.

Support among most women in high prevalence countries appears widespread and enduring

Despite the medical risks and international censure associated with genital cutting, these procedures have widespread and enduring support among women. More than seven of 10 women in Egypt, Mali, and Sudan would like to see genital cutting continue. In these countries, younger women tend to express about the same level of support as older women, suggesting little attitudinal variation among different generations of women. Women in CAR and Yemen are substantially less likely to approve of genital cutting, with levels of support at 30 percent and 21 percent, respectively. CAR, however, has a relatively low prevalence level of 43 percent. The prevalence of genital cutting in Yemen is unknown.

Eritrea is an exception, with relatively high levels of opposition and dissatisfaction among women and men

Among the countries with high prevalence levels, only Eritrea appears to have a critical mass of opposition among the adult population that

suggests broad-based openness to change. About four of 10 Eritreans want to see genital cutting discontinued. Opposition is particularly high among the urban and educated segments of the population.

Among the countries surveyed, Eritrea has the largest disparity between prevalence and support, suggesting widespread dissatisfaction with genital cutting. Although 95 percent of Eritrean women undergo these procedures, only 57 percent of women and 46 percent of men support these practices. The other countries with similarly high prevalence levels all have support levels of at least 75 percent among respondents.

Support levels are higher among Muslim respondents

In every country surveyed, Muslim respondents are more likely to express support for genital cutting practices than those of other faiths. In Egypt, for example, 83 percent of Muslim women support continuation, compared with 50 percent of Christian women. Among the women surveyed, 72 percent agree that genital cutting is a religious tradition. In some cases, this perception has been corroborated by Islamic leaders in Egypt, who have issued a number of fatwas, or edicts, supporting cutting since the 1950s.

Regions with high prevalence may be more resistant to change in CAR and Côte d'Ivoire

Although slightly more than half of women oppose cutting in CAR, these practices are concentrated in one region of the country, Région Sanitaire IV, where prevalence is 91 percent and support among women is 77 percent. The attitudes and behaviors of urban, educated women in CAR may not diffuse into this region, generating change among its residents. Instead, this region, which shares long borders with Chad and Sudan, may warrant special programmatic attention.

In Côte d'Ivoire, genital cutting practices are concentrated in three regions, the West, North, and North-West. Although overall prevalence is 43 percent, prevalence is 79 percent in the West, 85 percent in the North, and 88 percent in the North-West. Special programmatic attention might be directed to these regions, which share long borders with Liberia, Guinea, Mali, and Burkina Faso.

Attitudes vary considerably by ethnicity in CAR, but ethnic differences are less marked in Mali

Only CAR and Mali have data on ethnicity in relation to attitudes. In CAR, attitudes vary considerably by ethnicity. The range varies from 2 percent support among the Yakoma-Sango group to 59 percent among the Banda. The two groups with the highest prevalence levels—the Banda and the Mandjia—exhibit the largest differences between prevalence and support levels. Among the Mandjia, for instance, prevalence is 71 percent, but support is 35 percent. Mali has less attitudinal variation by ethnicity, with at least 74 percent of women across nearly all ethnic groups supporting continuation. Only two small ethnic groups express substantially lower levels of support, the Sonraï (36 percent) and the Tamachek (14 percent).

Urban and educated women, who express less favorable attitudes, may initiate future downward trends

Less favorable attitudes toward female genital cutting among urban and educated women may signal future declines in prevalence. In nearly all of the countries surveyed, urban and educated women are more likely to oppose continuation of genital cutting than their rural and less educated counterparts. In Mali, for example, 47 percent of those with some secondary education oppose genital cutting, compared with 9 percent of

women with no formal education. In general, the attitudinal differences between urban and rural women are less pronounced than those based on education, but are still important in some countries. In Egypt, for instance, 22 percent of urban women oppose genital cutting, compared with 5 percent of rural women.

Tradition or custom are the most common reasons respondents give for supporting these practices

Those expressing a favorable or unfavorable attitude toward genital cutting were asked to give specific reasons for their support or opposition. Supporters most commonly said that the practices are custom and tradition. Many respondents opposed to these practices said that genital cutting is a bad custom or tradition. These findings may indicate that, for some women, genital cutting practices are not strongly associated with any particular reason or justification. Instead, women may consider these procedures an integral part of custom and tradition. Another possibility, however, is that "custom and tradition" is a complex response that embodies any number of reasons for supporting or opposing genital cutting.

Many Egyptian women also support genital cutting for hygienic and religious reasons

Egypt is the only country where substantial numbers of women mention cleanliness and religion as reasons for their approval of genital cutting. Nearly three out of 10 Egyptian women of childbearing age specify cleanliness as a reason for their support. One-fourth of women say they want to see genital cutting continue because it is a religious requirement.

Medical complications are the most commonly given reason for opposition in most countries surveyed

Medical complications are the most commonly given reason for opposition to genital cutting in nearly all of the countries surveyed. In Egypt, Mali, and Sudan, between 45 and 50 percent of women opposed to genital cutting specify medical complications as a reason for their disapproval. In these countries, however, those who oppose cutting for medical reasons comprise a small fraction of the population: 6 percent of women in Egypt and Mali, and 11 percent of women in Sudan.

Opposition for health reasons is substantial among men in Eritrea and women in Yemen. One-third of Eritrean men between the ages of 15 and 59 cite medical reasons as a justification for their opposition, while one-third of Yemeni women ages 15 to 49 disapprove because cutting is "not good for the girl." In CAR, health reasons are cited less frequently by women; most of those who want to see cutting discontinued say that these practices are a bad tradition or are against their religion. It is possible, however, that women believe cutting practices are a bad tradition for any number of reasons, including health reasons.

No major decrease in prevalence levels is evident across generations

In most countries studied, younger women appear nearly as likely to undergo these procedures as their mothers before them. A comparison of prevalence levels between age groups of women 15 to 49 shows little or no decline in genital cutting. CAR is the only country to display a slight, but continuous, decline in prevalence across age groups. In CAR, prevalence among women ages 20 to 24 is 43 percent, compared with 53 percent among those 45 to 49.

The daughters of urban and educated women may be less likely than others to undergo genital cutting

Many educated women appear less influenced by tradition, demonstrating a lower likelihood than other women of having their daughters undergo these procedures. The differences are probably most striking in Egypt. Among Egyptian mothers with no formal education, 98 percent report a daughter has been or will be cut, compared with 57 percent of mothers with at least a secondary-level education. In Egypt and, to a lesser extent, in Mali, urban women are also less likely to have their daughters cut than their rural counterparts.

Even if urban and educated women realize their intentions to prevent their daughters from undergoing cutting, the prevalence levels will probably still remain relatively high among these groups. The majority of urban and educated mothers in Egypt, Eritrea, Mali, and Sudan report that at least one daughter has been or will be cut. In Mali, for example, more than 80 percent of urban and educated mothers report their eldest daughter has undergone or will undergo cutting.

The role of men in furthering these traditions is unclear

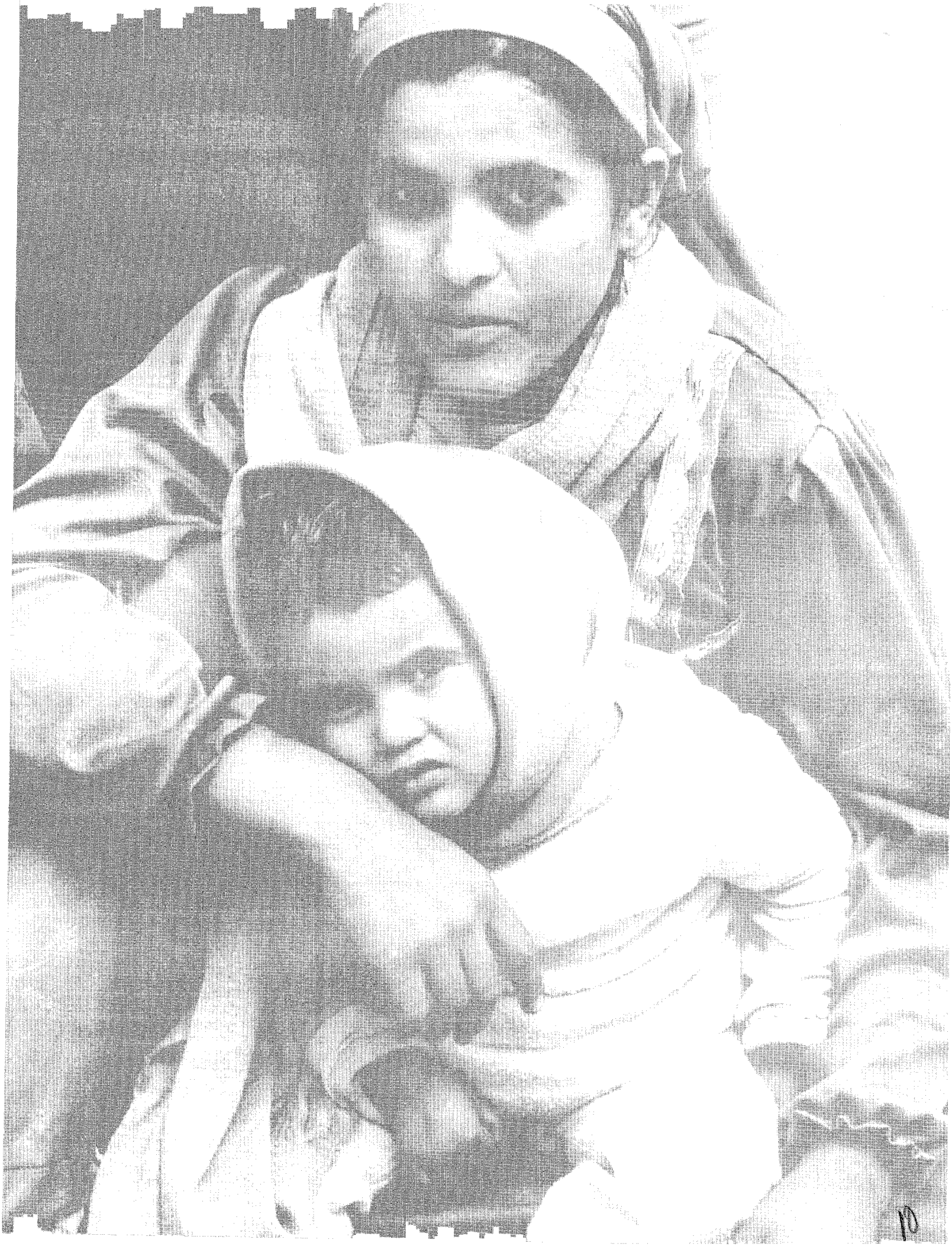
Evidence from the DHS regarding the role of men in perpetuating these practices is ambiguous. In Egypt, many women appear to associate cutting with attracting a husband. Three out of four Egyptian women agree that husbands prefer women who have been cut. In Eritrea and Sudan, however, men may actually express less approval and more indifference than women toward these practices. Eritrean men are slightly more likely than Eritrean women to express opposition or indifference toward genital cutting and slightly less likely to support these practices. Eritrean men are also more likely than women to specifically oppose genital cutting for health reasons. In Sudan, women's perceptions of their husband's attitudes suggest that male support may be less pronounced than female support.

Less favorable attitudes may not necessarily translate into lower prevalence levels

Although the level of opposition among some respondents is substantial, it is difficult to predict whether less favorable attitudes will translate into significantly lower prevalence levels. Despite their personal opposition to these practices, a number of mothers report that a daughter has been or will be cut. Any number of powerful mediating factors may prevent mothers opposed to genital cutting from keeping their daughters intact, including the weight of tradition and strong community norms supporting these practices. According to Sudanese women opposed to cutting, for instance, two major reasons these practices continue are a "fear of social criticism" and the "insistence of old women."

Women in Egypt and Sudan most commonly endorse educational campaigns to eradicate genital cutting

In Egypt and Sudan, researchers asked women opposed to genital cutting their advice about how to eradicate these practices. Women most commonly endorse educational campaigns as the best strategy for abolishing genital cutting. A small, but sizable group of women recommend legal recourse, with Sudanese women proposing that laws against the practice be enforced and Egyptian women suggesting that operators be prohibited from performing operations. In Sudan, the majority of rural and uneducated women say they don't know how these practices can be abolished.



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Prevalence

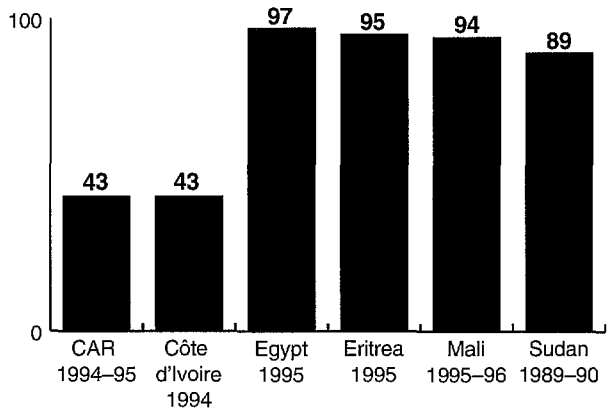
Female genital cutting is common in the countries surveyed

In the countries studied, female genital cutting is widespread. These procedures are nearly universal among women in Egypt, Eritrea, and Mali and widely practiced in northern Sudan. The lowest levels of prevalence are found in the Central African Republic (CAR) and Côte d'Ivoire. Even in these countries, however, two of five women have undergone genital cutting. Prevalence data were not collected for women in Yemen.

Prevalence levels are higher in Egypt and Mali and lower in CAR and Côte d'Ivoire than previous estimates indicated

Except for northern Sudan, these figures represent the first reliable national prevalence estimates on genital cutting for the countries surveyed. In the absence of national data, previous estimates of prevalence were based primarily on community-level studies or anecdotal evidence (Toubia, 1995). DHS results indicate that the level of genital cutting among Egyptian and Malian women is higher than previously thought, while levels in CAR and Côte d'Ivoire are lower than prior estimates indicated. Before the surveys were conducted, prevalence was estimated to be 50 percent in CAR, 60 percent in Côte d'Ivoire, 80 percent in Egypt and Mali, and 90 percent in Eritrea (Toubia, 1995).

Percentage of women ages 15 to 49 who have undergone genital cutting



Note: Ever-married women in Egypt and Sudan

Millions of women are affected

Nearly 30 million women ages 15 and older have undergone genital cutting in the countries surveyed based on population estimates for 1995. At current prevalence levels, approximately 20 million girls under the age of 15 are also potentially affected, having undergone genital cutting already or likely to undergo cutting in the near future.

Estimated number of women who have undergone cutting

Country	Approximate number of women who: Have undergone genital cutting or are "at risk" of cutting (less than 15 years old)	Have undergone genital cutting (age 15 and older)
Central African Republic	306,160	429,570
Côte d'Ivoire	1,499,840	1,523,060
Egypt	11,338,330	18,624,000
Eritrea	736,250	953,800
Mali	2,165,760	2,472,858
Sudan	4,324,688	5,638,328
Total	**20,371,028**	**29,641,616**

Note: These estimates are based on the United Nations medium variant population projections for 1995 (United Nations, 1995). To obtain these figures, the DHS prevalence levels for women 15 to 49 were applied to the population projections for all women under 15, between 15 and 49, and over the age of 49 in each country studied. In calculating these figures, two assumptions have been made: (1) Prevalence levels for women 15 to 49 also reflect the experiences of those under the age of 15 and over the age of 49; and (2) Prevalence levels for never-married and ever-married women in Egypt and northern Sudan are equivalent.

Children at risk

Many women undergo cutting as infants in Côte d'Ivoire, Eritrea, and Mali

A significant number of women in Côte d'Ivoire, Eritrea, and Mali underwent genital cutting in their first year of life, one of the most physically vulnerable times for children. Eritrea has the highest level of infant girls undergoing these procedures. Among Eritrean women who have been cut, slightly more than two out of five reported that they underwent the procedure before their first birthday (Moore, 1996). Urban and more educated respondents tend to have undergone cutting during infancy, as have women from the Saho and Tigrigna ethnic groups. The differences based on religion in Eritrea are particularly striking, with 61 percent of Christian women cut before one year of age, compared with 18 percent of Muslim women (see Appendix Table 3).

Percent distribution of women who have undergone cutting, by age at cutting

Country	Infancy (first year of life)	Ages 1-4	Ages 5-14	Ages 15+	Don't know	Median age at cutting[a]	Number of women
CAR	0	2	88	9	0	10.8 years	2,555
Côte d'Ivoire	16	9	55	11	10	9.7 years	3,459
Egypt	1	2	89	1	7	9.8 years	14,330
Eritrea	44	16	12[b]	na	28[c]	1.8 months	4,775
Mali	29	13	41	2	17	6.3 years	9,097

Note: Rows may not add to 100% because of rounding.
na = not available
[a] Age by which half of women reported undergoing genital cutting.
[b] Refers to age 5 and older.
[c] Includes missing responses.

In Mali, a substantial number of women also reported undergoing genital cutting in the first year of life, with nearly 30 percent of respondents experiencing these procedures during infancy. Women from Bamako and those who have attended at least some secondary school tend to undergo cutting early in life, with median ages at cutting of 1 and 0.9 years respectively. Other groups of women with median ages at cutting under age 1 include residents of Kayes region and members of the Sarakolé/Soninké ethnic groups (see Appendix Table 4).

The age at which Malians undergo these procedures appears to be decreasing. The median age at cutting for women 45 to 49 is 8.8 years, compared with 4.3 years among women 15 to 19. The comparison between women and eldest daughters reveals an even more striking age difference. The median age at cutting for women 15 to 49 is 6.3 years, compared with 2.1 years for eldest daughters. This decline, while substantial, may be somewhat overstated since 17 percent of Malian women didn't know or remember when they underwent cutting. At least some of these women are likely to have undergone these procedures as infants.

Variations in practice among different groups of women

Some women are more likely than others to undergo genital cutting, depending on their religion, ethnicity, education, and residence. The patterns, however, are not always consistent across countries. The next sections will examine variations in prevalence among different groups of women.

Religion

Prevalence levels are higher among Muslim women

Among the countries surveyed by DHS, Muslim women are more likely to have undergone genital cutting than their Christian counterparts. Although

it is not a requirement of Islam, genital cutting appears to be a strong cultural tradition among many Muslim women. This may in part be due to the association of "sunna," which suggests required practice for Muslims, with one form of genital cutting, the so-called "sunna" circumcision (Gordon, 1991). This association may have contributed to the perception, especially in Egypt and Sudan, that these practices are recommended for Muslims.

Religious differences in prevalence are largest in Côte d'Ivoire and Sudan

The differences between Muslims and Christians are most striking in Côte d'Ivoire and Sudan. Around 80 percent of Muslim women have been cut in Côte d'Ivoire, compared with 16 percent of Christian women. In Sudan, 90 percent of Muslim women have been cut, compared with 47 percent of Christian women.[1]

Religious differences related to cutting are statistically significant in Côte d'Ivoire and Sudan

In Côte d'Ivoire and Sudan, multivariate analysis was used to explore the strength of the association between religion and genital cutting. The findings indicate that the relationship between religion and genital cutting in both countries remains statistically significant after controlling for women's age, educational attainment, and region of residence. Religion appears to be a powerful predictor of whether or not a woman

Percentage of women who have been cut, by religion

	MUSLIM		CHRISTIAN		TRADITIONAL/OTHER	
Country	Percent	Number of women	Percent	Number of women	Percent	Number of women
CAR	50	522	43	5,270	42	92
Côte d'Ivoire	80	2,639	16	3,446	39	2,015
Egypt	98	13,981	88	795	*	*
Eritrea	99	1,893	92	3,133	*	*
Mali	94	8,794	85	290	90	620
Sudan	90	5,745	47	111	*	*

* Fewer than 20 cases

[1] The percentage of Christian women who have undergone cutting is based on a relatively small number of respondents.

[2] In Sudan, the relationship appears to grow stronger after controlling for these background variables. Logistic regression results from Sudan indicate that Muslim women are at least 51 times more likely to undergo cutting than Christian women (Odds ratio= 51.8; p<.01). Similarly, in Côte d'Ivoire, the findings reveal a strong relationship with religion, with Muslim women at least 17 times more likely to undergo cutting (Odds ratio= 17.4; p<.01) than Christian women. Neither country equation, however, controlled for ethnicity since this information was not collected in Sudan or computed in Côte d'Ivoire. Instead, region was used to roughly approximate ethnicity. The inclusion of ethnic group in the equation might have affected the explanatory power of religion.

undergoes cutting.[2] Muslim women in Côte d'Ivoire, for instance, are at least 17 times more likely to undergo cutting than Christian women.

Ethnic and regional patterns of prevalence

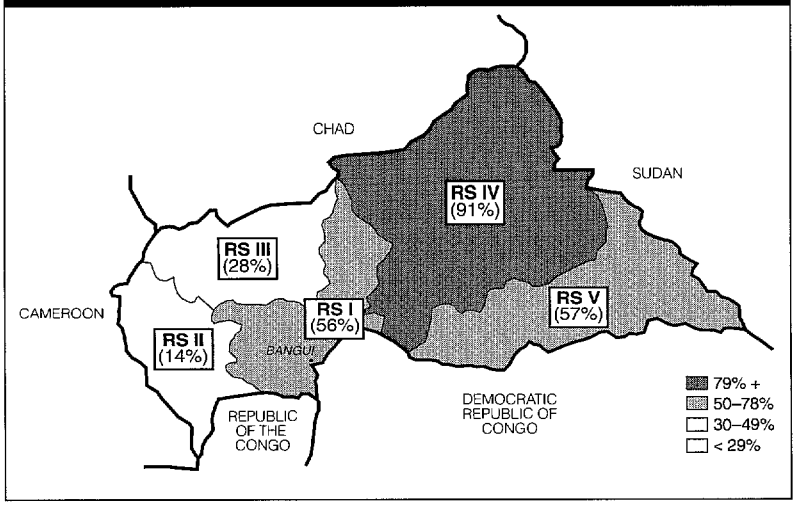
Ethnic affiliation is considered to be an explanatory factor for the pattern of genital cutting practice across Africa (Toubia, 1995). In CAR and, to a lesser extent, Mali, differences in prevalence exist among women based on ethnic group (see Appendix Table 2). Ethnic information was not collected or tabulated for surveys in Côte d'Ivoire, Egypt, and Sudan. In these countries, the regional patterns may indirectly provide information about prevalence levels among different ethnic groups (see Appendix Table 1).

CAR. The largest differences in prevalence based on ethnic group and regional residence exist in CAR. Prevalence among women ranges from 3 percent among the Yakoma-Sango and Mboum to 84 percent among the Banda, one of the country's larger ethnic groups. The prevalence of cutting among CAR's largest ethnic group, the Gbaya, is 32 percent. Nearly one in four women belongs to an ethnic group with a prevalence level under 10 percent (Mboum, Ngbaka-Bantou, Yakoma-Sango, and Zandé-Nzakara).

Similarly striking differences in prevalence, probably rooted in ethnicity, exist by region. Nine of 10 women underwent cutting in region RS IV, with major borders facing Chad and Sudan. In contrast, fewer than 30 percent experienced these procedures in the western regions of RS II (14 percent) and RS III (28 percent), bordering Cameroon and Chad, respectively.

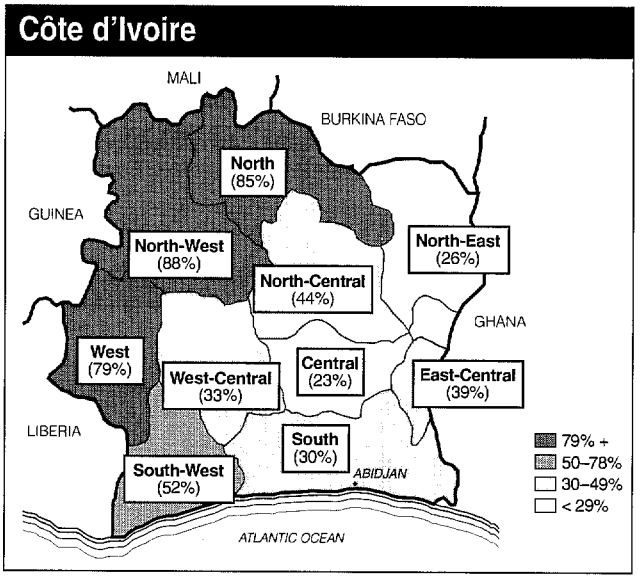
Côte d'Ivoire. In most parts of the country, prevalence ranges from 20 to 40 percent. Prevalence levels are exceptionally high in three regions, the West (79 percent), North-West (88 percent), and North (85 percent), which neighbor Liberia, Guinea, Mali, and Burkina Faso. Multivariate analysis suggests that region of residence is a major factor in determining genital cutting status for women in these areas even when age, education, and religion are held constant.[3] This suggests

Central African Republic (CAR)



[3] Logistic regression indicates that residence in the West, North-West, and North is strongly associated with genital cutting after controlling for age, education, and religion. Compared with those in the Center region, women are 25 times more likely in the West (Odds ratio= 25.0; p<.01), 15 times more likely in the North-West (Odds ratio= 14.7; p<.01), and 18 times more likely in the North (Odds ratio= 18.3; p<.01) to have undergone cutting.

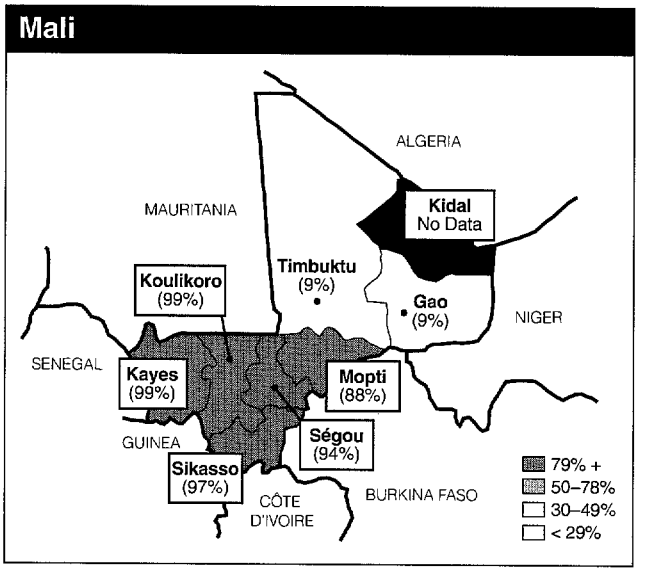
that other factors such as ethnic affiliation, bordering countries, or community norms may be strongly associated with cutting practices in the West, North-West, and North. The predominant ethnic groups in these regions are the Sénoufo, Malinké, Dan, Toura, and We (Ahonzo et al., 1984).



Egypt. The prevalence of cutting exceeds 92 percent among women in nearly all regions of Egypt. Women from the sparsely populated Frontier Governorates are least likely to have undergone genital cutting. Even among these women, however, three of four have been cut.

Eritrea. In Eritrea, the differences by ethnic group and region are minor. All groups have prevalence levels above 90 percent. Little variation in prevalence exists among women living in different parts of the country. At least nine of 10 women throughout Eritrea are likely to have undergone genital cutting.

Mali. Genital cutting is nearly universal among Mali's most populous ethnic groups, including the Bambara, Sarakolé/Soninké, and Peulh. The prevalence levels among women are higher than 85 percent in nearly all regions of the country, except for the two small, relatively isolated desert cities of Timbuktu and Gao (9 percent). The majority of inhabitants in these cities are Sonraï or Tamachek. Women belonging to these ethnic groups are substantially less likely than others to undergo genital cutting. Sonraï or Tamachek women, however, who reside outside of Timbuktu or Gao have higher prevalence levels. In Bamako, for instance, 75 percent of Sonraï women have undergone genital cutting.



Sudan. Except for two regions, at least 95 percent of women throughout Sudan have undergone genital cutting. Women in the Darfur region (65 percent) and, to a lesser extent, the Eastern region (87 percent), are less likely to have undergone cutting. The lower prevalence levels in Darfur suggest that genital cutting is not a universal practice among some of this region's ethnic groups.

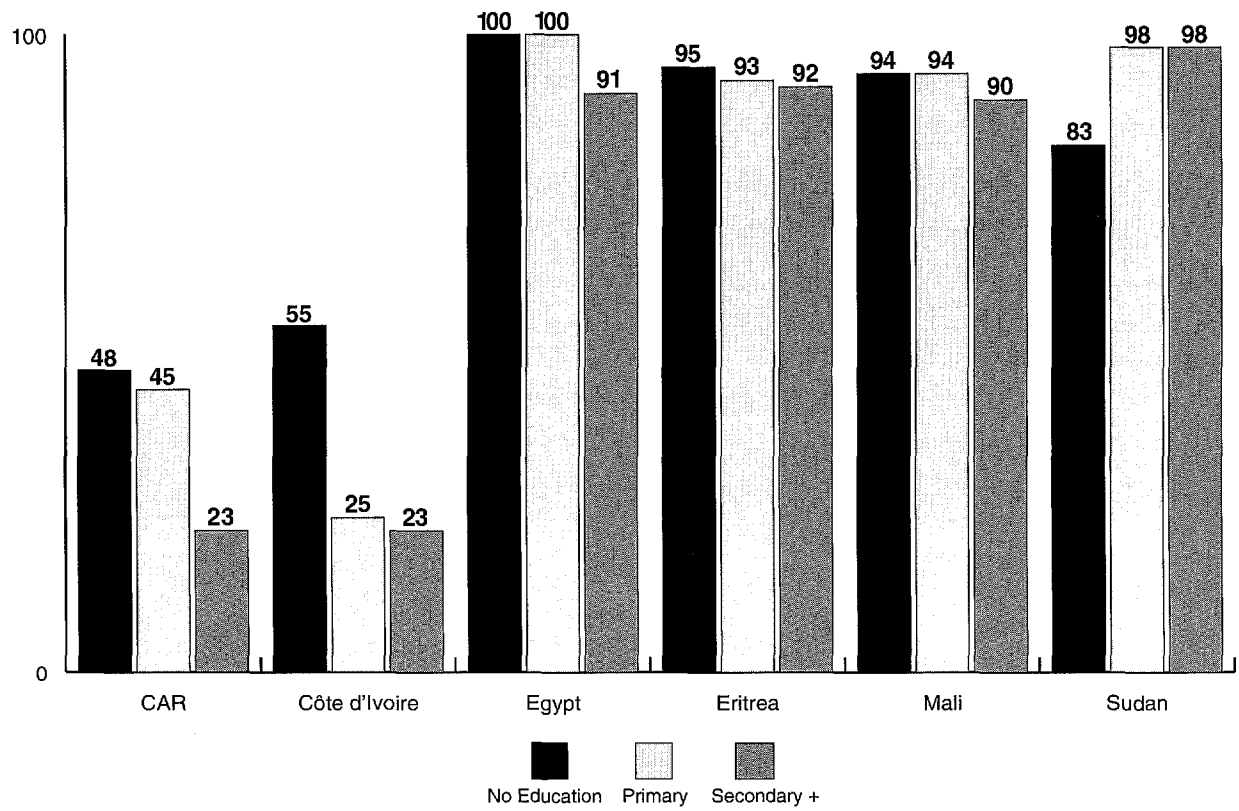
Prevalence among urban and educated women

Prevalence among educated women varies in some countries, but is uniformly high in others

Women usually undergo genital cutting at too young an age for education to have any influence on the likelihood of their being cut. Educational attainment, however, can serve as a proxy for family wealth and women's status within a household. In many of the countries surveyed, male or female attendance of secondary school often signals higher socioeconomic status. Overall, very few women in most of the countries studied have had access to a secondary-level education.[4]

In some countries, women with at least some secondary-level education are less likely to have undergone genital cutting. The most striking differences in prevalence based on education exist in CAR and Côte d'Ivoire. In CAR prevalence is lower only among the country's most educated women. In contrast, women with any level of education in Côte d'Ivoire appear less likely to have undergone cutting than women with no formal education.

Percentage of educated women ages 15 to 49 who have undergone genital cutting



[4] According to DHS findings, women ages 15 to 49 who have attended some secondary school total 14 percent in Central African Republic, 14 percent in Côte d'Ivoire, 31 percent in Egypt, 10 percent in Eritrea, 7 percent in Mali, and 15 percent in northern Sudan. Many women have never been to school, including 52 percent in CAR, 60 percent in Côte d'Ivoire, 44 percent in Egypt, 66 percent in Eritrea, 81 percent in Mali, and 58 percent in northern Sudan.

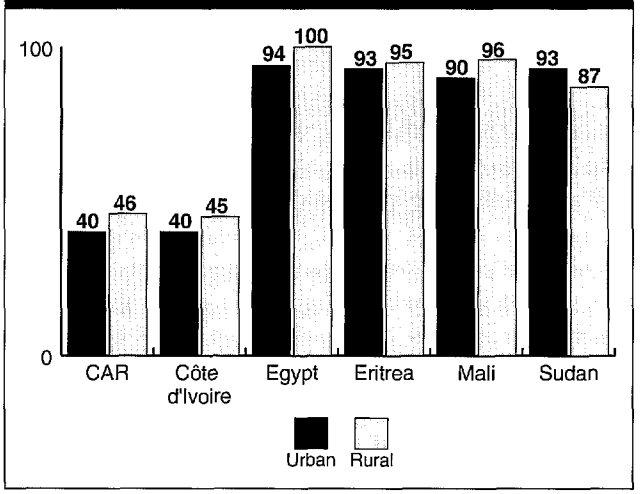
In Egypt, Eritrea, Mali, and Sudan, the most educated women are about as likely—or in the case of Sudan, somewhat more likely—to undergo genital cutting than their less educated counterparts. Education seems to make little difference in prevalence levels among women in Egypt, Eritrea, and Mali. In Sudan, however, prevalence levels are somewhat higher among the most educated women. This is at least partly due to the ethnic groups in western Sudan who do not practice cutting. Historically, these women have had less access to educational opportunities than their counterparts in the rest of the country.

Genital cutting is about equally common among urban and rural women

Although often portrayed as a practice most common in rural areas, prevalence levels differ little by urban-rural residence. Across most of the countries surveyed, women in urban areas are only slightly less likely than their rural counterparts to have experienced genital cutting. Except for Sudan, the rural prevalence levels are no more than 5 or 6 percentage points higher than urban levels. The type of cutting a woman undergoes, however, can vary by urban-rural residence (see discussion of Eritrea findings, "Types" section).

The urban-rural differences may be somewhat understated due to rural to urban migration. Many of the countries studied are becoming increasingly urbanized. The influx of girls from rural areas, where prevalence levels are generally higher, into urban areas may obscure the urban-rural differences in prevalence.

Percentage of women who have undergone genital cutting, by residence



Attitudes

For the most part, international agencies and governments agree that genital cutting adversely affects the health and well-being of women. But in countries where genital cutting is common, these procedures often have widespread support among women. The majority of supporters in the countries surveyed say that these practices are custom or tradition. Field research suggests that families and practitioners also associate a number of specific benefits with cutting. The reasons for practicing cutting, however, can vary substantially within and between countries. Below is a general overview of some of the primary benefits attributed to genital cutting drawing upon literature reviews and field research from a number of different countries (Abdalla, 1982; El Saadawi, 1980; Ericksen, 1996; Gruenbaum, 1991; Price, 1979; Toubia, 1995; Van der Kwaak, 1992).

For the woman, cutting is believed to impart:

Chastity and virtue. Cutting safeguards women against pre- and extra-marital sexual activities. Clitoridectomy or excision diminish sexual sensation, while infibulation impedes sexual intercourse. Underlying these notions may be a belief that women need to be protected from rape as well as "temptation," including their own aggressive sexual impulses.

Religious favor. Cutting may be promoted as or understood to be sanctioned by religion.

Social acceptance and good reputation. Intact women are viewed as less attractive to men, unmarriageable, or promiscuous.

Cleanliness and attractiveness. The external genitalia are regarded as unclean and, if left uncut, will become unsightly or ungainly.

Maturity. Cutting signals a girl's entrance into womanhood, including readiness for marriage and childbearing. In some cultures, intact women are believed to remain girl-like no matter their age.

Pleasing personality. Cutting instills calm, submissiveness, and other traits associated with ideal "femininity."

Good health. Cutting prevents disease, enhances survival, and results in higher fertility.

In addition to the above, the benefits of cutting for the man include:

Good wife and mother. Cutting ensures a modest, faithful wife. Infibulation guarantees virginity and legitimate heirs.

Stable union. Cutting keeps women from becoming too "sexually demanding," sapping resources from the man as he ages and his energy diminishes.

Sexual pleasure. The smaller vaginal opening created through some forms of cutting is believed to enhance the husband's sexual pleasure.

Benefits to the family

In some cases, genital cutting positively contributes to the family's social standing, prosperity, and ability to secure favorable unions for daughters. In many communities where cutting is common, the conduct and reputation of female family members relates directly to the family's honor and respectability. Among girls, virginity and a good reputation are also important prerequisites for marriage and a favorable bride price. Cutting can be an indicator of a girl's "good reputation," promising virginity before marriage and fidelity after marriage. Infibulation scars in particular may be likened to a "seal" guaranteeing a girl's virginity. In some communities, infibulation represents virginity. A girl is not considered virginal unless she is infibulated.

Economic underpinnings

Genital cutting can provide an important source of income for families, communities, and practitioners. As noted above, families can benefit economically by obtaining a higher bride price and more favorable union for daughters. Various community members may also benefit from any feasts or celebrations that take place in conjunction with the initiation of girls. These festivities may involve the purchase of special outfits, presents, and other items that boost the local economy.

The formal and traditional medical communities often profit from these procedures. The position of "circumciser" may be held within a family and passed down through generations. In some areas, the role of "circumciser" is one of the few or only positions open to village women that can provide some measure of prosperity and social standing. Midwives may earn more for genital cutting than for assisting at deliveries (Van der Kwaak, 1992). In areas where infibulation is common, cutting can provide a continuous source of income as operators are needed throughout the lives of women to perform procedures during childhood, before childbirth, and after childbirth, divorce, or the death of a spouse.

DHS findings on support for genital cutting

In most countries, the majority of women support continuation

The majority of women approve of genital cutting in most of the countries surveyed. More than seven out of 10 women in Egypt, Mali, and Sudan support these practices. Among Eritrean women, support is less widespread, but still notable; nearly six in 10 favor continuation. In contrast, just under half of Eritrean men support these practices. Opposition among Eritrean men, however, is only slightly higher than among Eritrean women. Men are slightly more likely than women to express some uncertainty in their attitudes.

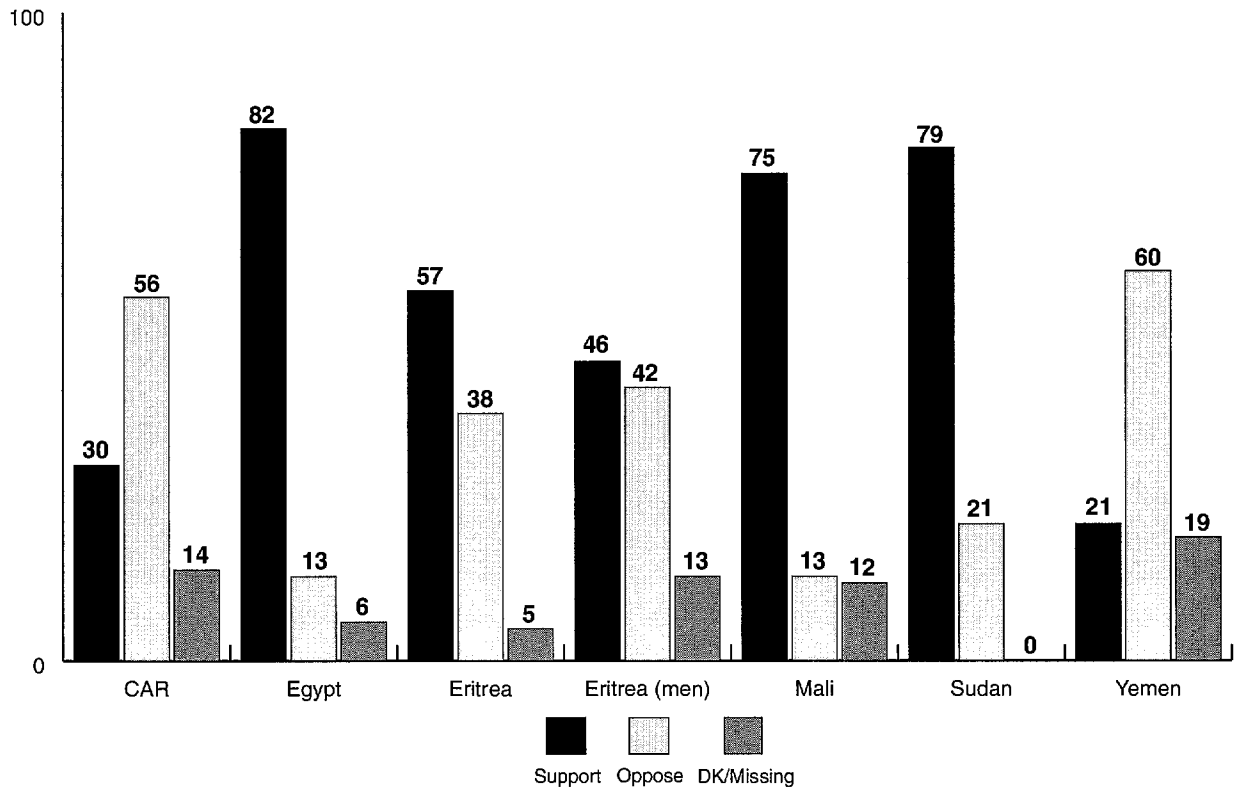
Women in CAR and Yemen are least likely to approve of cutting. Only three out of 10 women in CAR want to see these practices continue. Although overall approval is relatively low in Yemen, responses for nearly one-fifth of respondents are missing.

Some groups express uncertainty about their opinion regarding cutting

Some groups express a relatively high level of uncertainty in response to questions about their attitudes toward genital cutting. Those who do not respond to these questions may have no opinion or, possibly, knowledge about these practices. Rural and less educated women may also feel less comfortable in offering interviewers an opinion about practices perceived as custom or tradition.

Among Eritrean men and Malian women, a few groups are more likely than average to express no opinion about genital cutting (see Appendix Table 1). For example, about one-fifth of Eritrean men in the Southern zone say they don't know or are unsure of their attitude toward cutting. Since prevalence in the Southern zone is high, this finding may suggest some degree of detachment or ambivalence among men. In Mali, more than half of women in the small desert cities of Timbuktu and Gao say they "don't know" how they feel about these practices. Since prevalence levels are very low in these cities, this may reflect a lack of knowledge among women.

Attitudes of respondents toward genital cutting



Percent women 15–49; men 15–59; ever-married in Egypt, Sudan, and Yemen

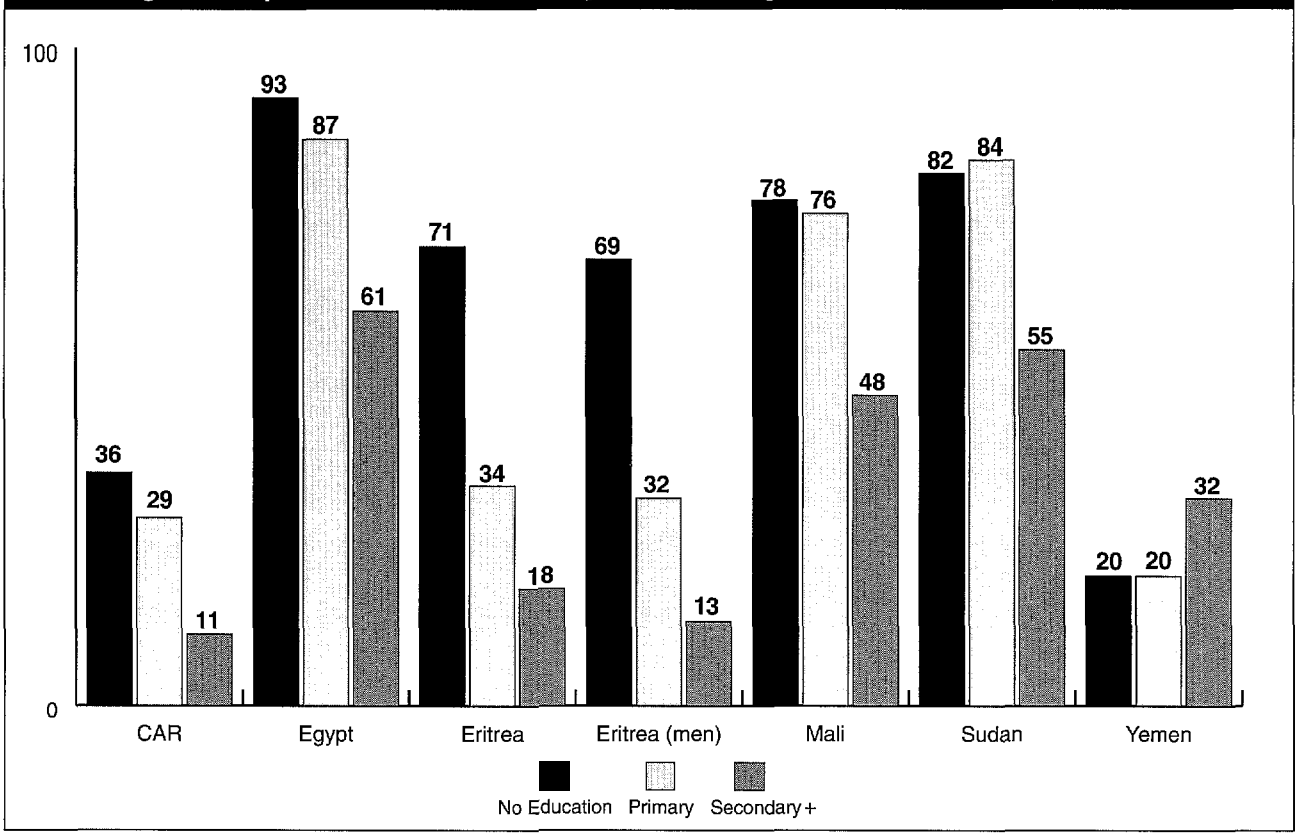
Note: In Yemen, women were asked if they approved or disapproved. Elsewhere, respondents were asked if they supported or opposed continuation. In Yemen, nearly all of the "Don't Know/Missing" responses are "Missing." It is not clear whether the respondent had never heard of genital cutting, did not answer the question, or was unsure of her attitude, but was categorized as giving no response.

Educated and, to a lesser extent, urban women tend to have less favorable attitudes

The attitudes of educated respondents suggest less widespread support for cutting among higher socioeconomic groups in nearly all of the countries surveyed. This is especially true in Eritrea, where only 18 percent of the most educated women support continuation, compared with 71 percent of women with no formal education.

The educational differences may be somewhat overstated since they probably also reflect age-related generational differences among respondents. Younger respondents in Eritrea and northern Sudan are less likely than older groups to support cutting and more likely to have attained higher levels of education. Younger Eritrean women, in particular, may also have benefited from gains made by women "freedom fighters" during the long-running war with

Percentage of respondents who believe genital cutting should continue, by education



Ethiopia, which ended in the early 1990s. The participation of women in the war, combined with the stance against cutting taken by the Eritrean People's Liberation Front, have been linked to greater societal recognition of gender issues in Eritrea, including reconsideration of such practices as "forced marriage" and genital cutting (Araya, 1997; Dorkenoo and Elworthy, 1992).

In Egypt, Mali, and northern Sudan, only those women who have attained at least some secondary-level education are less likely to support continuation. Women with less or no education are about equally likely to favor these practices. Although the highly educated are less favorably disposed than other women, the levels of approval are still relatively high. In Egypt, for instance, 61 percent of the most educated women favor continuation. In Mali and Sudan, the results suggest that about one-half of the most educated women would like to see genital cutting continue. Eritrea and, to a lesser extent, CAR exhibit a decline in support across all educational groups of respondents. In both countries, the higher the level of educational attainment, the less likely a respondent is to support these practices.

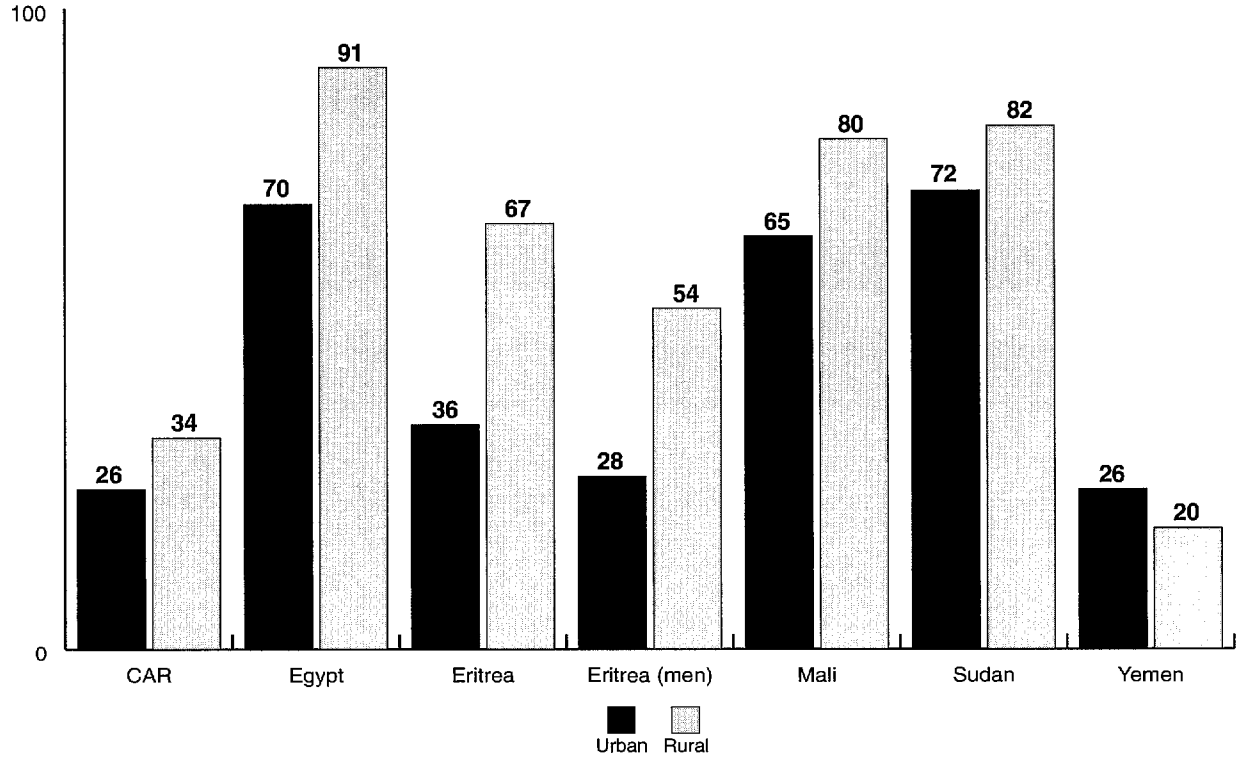
In Yemen, the most educated women seem to be slightly more likely to approve of genital cutting than their less educated counterparts. Nearly one-third of the most educated approve, compared with about one-fifth of less educated

and illiterate women. These findings need to be interpreted with some caution since the responses for relatively large numbers of illiterate and primary-educated women are missing. Among women with no formal education, 20 percent of responses are missing, compared with 5 percent among the most educated women.

Except in Yemen, urban respondents are less likely to favor the continuation of genital cutting than their rural counterparts. The most striking differences are in Eritrea, where 67 percent of rural women support continuation, compared with 36 percent of urban women. The disparity among men in Eritrea is nearly as large. After Eritrea, Egypt displays the largest gap between urban and rural support levels.

Among the countries surveyed, the lowest approval levels are among urban women in CAR, women in Yemen, and urban men in Eritrea. The relatively low support levels in Yemen are difficult to interpret, however, because of the high proportion of missing responses. Support levels are highest, even among urban women, in Egypt, Mali, and Sudan. Seven out of 10 urban Egyptian and Sudanese women favor the continuation of genital cutting.

Percentage of respondents who support genital cutting, by residence



Note: In Yemen, the responses for 21 percent of rural women are missing.

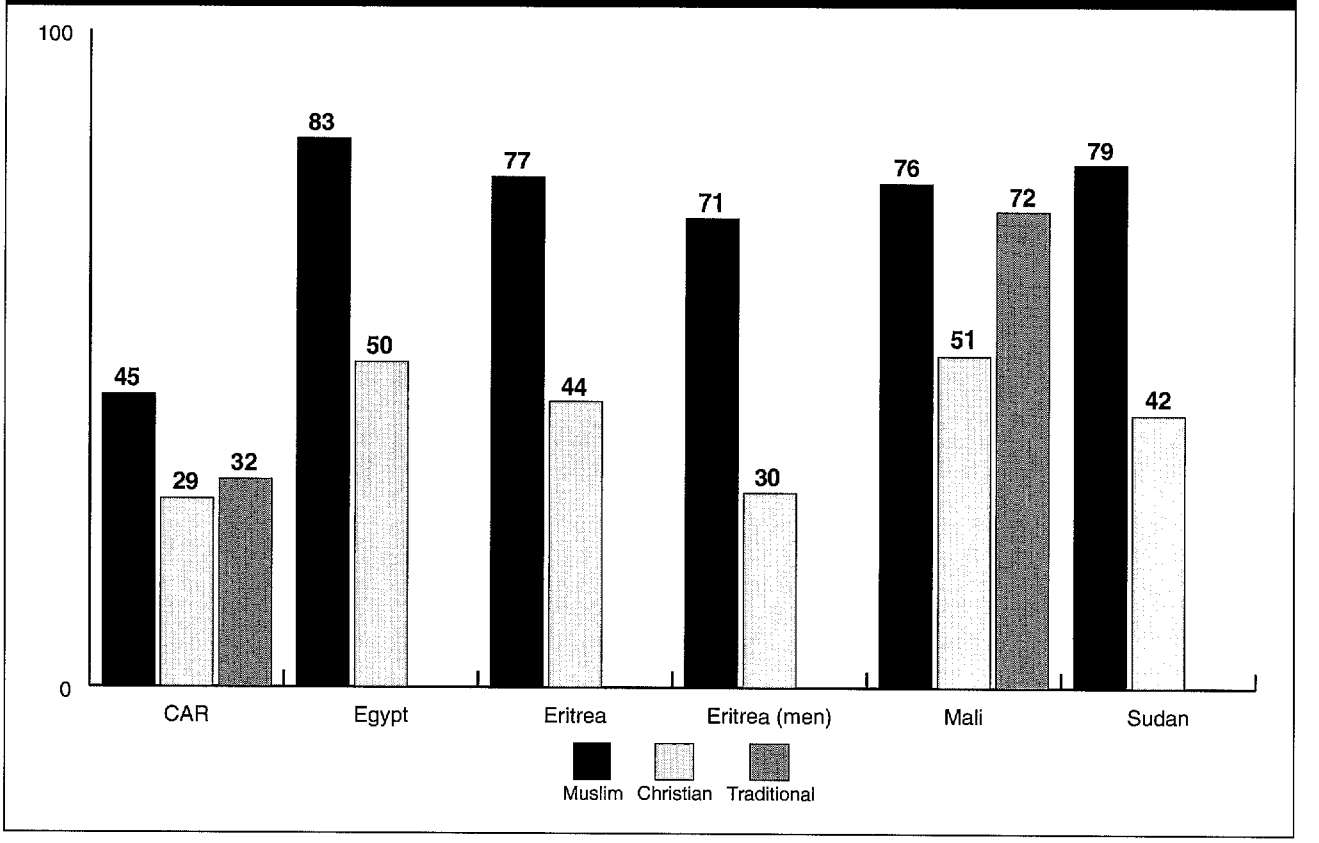
Support among Muslim women is relatively strong

In most countries surveyed, at least seven of 10 Muslim respondents support the continuation of genital cutting. Approval levels are highest among Muslim women in Egypt, where more than 80 percent support continuation. For the most part, the levels of approval among Christian women are in the 40 to 50 percent range. The lowest levels of support are found among Christian women in CAR and Christian men in Eritrea.

Attitudes among income-earning women vary by country

Some researchers have theorized that genital cutting will decline when women have broader access to education and income-generating employment. Although more educated women tend to report less positive attitudes, these patterns do not consistently hold by women's employment status.

Percentage of respondents who support genital cutting, by religion



In Egypt and Sudan, income-earning women are substantially less likely to support the continuation of cutting. In CAR and Mali, however, cash-earning women are slightly more likely or about as likely to support the continuation of genital cutting as non-cash earning women. A number of reasons may account for the attitudinal differences between women who earn cash and those who do not. For example, more than half of income-earning women in Egypt and Sudan reside in urban areas and have attended school. In CAR and Mali, cash employment might be a reflection of financial need rather than financial empowerment. The majority of cash-earning women in these countries reside in rural areas and have never been to school.

Variations in women's attitudes by residence

Most countries surveyed exhibit at least some variation in respondent attitudes by region of residence (see Appendix Table 1). The most striking attitudinal differences based on region are in CAR and Eritrea. In CAR, for instance, support ranges from 17 percent in Région Sanitaire (RS) III to 77 percent in RS IV. Attitudinal variations between regions are probably rooted in such factors as the area's ethnic composition, neighboring countries, dominant religious affiliation, and level of urbanization.

CAR. CAR has a great deal of variation in support by region. Fewer than 20 percent of women support continuation in RS II and RS III—the western part of the country—areas

Approval of genital cutting, by work status

Country	Approval among women who work for cash (%)	Number of women	Approval among women who do not work for cash (%)	Number of women
CAR	33	3,866	26	2,018
Egypt	65	2,306	85	12,473
Mali	77	3,733	74	5,965
Sudan	63	471	80	5,385

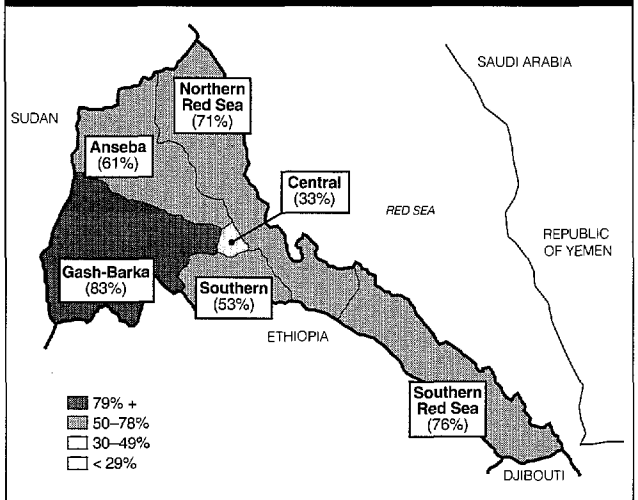
Note: In Sudan, women were asked if they were currently working to earn money other than on a farm or a family business.

bordering Cameroon and Chad. Levels of support are also low among women in the capital city of Bangui. The highest support levels are in the eastern part of the country, in areas which abut Chad, Sudan, and Zaire.

Egypt. Overall, support exceeds 60 percent in all parts of Egypt. Those residing in the sparsely settled Frontier Governorates are least likely to favor cutting, with 61 percent support.

Eritrea. Support among Eritrean respondents varies considerably. More than 70 percent of women in the Southern Red Sea, Northern Red Sea, and Gash-Barka zones favor continuation. In contrast, support among women in the Southern and Central zones is 53 and 33 percent, respectively. In nearly all zones, men are less likely to support continuation than women. Men in the Central and Southern zones are least favorably disposed, with levels of 24 and 32 percent support respectively.

Eritrea



Support levels among female respondents

Mali. In most Malian regions, support among women is at least 70 percent. Only in the small desert cities of Timbuktu and Gao are levels strikingly different, with a 6 percent approval level. Women who reside in the capital city area, Bamako, are slightly less favorably disposed toward cutting than those in other regions, with an approval level of 65 percent.

Sudan. Except for Darfur and the largely urban capital city area of Khartoum, support is at least 80 percent among women in Sudan. Darfur, with the lowest levels of support among women, is in the western part of Sudan, bordering CAR, Chad, and Libya. The lower support levels probably reflect the variability among western Sudan's ethnic groups, some of which have not readily embraced Arab-Sudanese traditions such as cutting.

Yemen. Support is strongest in the south and east parts of the country, with 36 percent of ever-married women approving of cutting. Support is substantially less pronounced in the north and west parts of the country, an area including the capital city. The responses for a number of women in the north and west, however, are missing (22 percent).

Women's attitudes according to ethnic group

The only countries surveyed with data on ethnicity available are CAR and Mali (see Appendix Table 2). In CAR, support levels vary considerably by ethnicity. The range varies from 2 percent support among the small Yakoma-Sango group to 59 percent among the larger Banda ethnic group. Overall, more than half of women in the country's larger ethnic groups except for the Banda and Haoussa would like to see an end to these practices.

In Mali, support among women in the largest ethnic groups is at least 74 percent. Only women in the smallest ethnic groups are substantially less supportive of genital cutting. Two smaller ethnic groups—the Sonraï and the Tamacheck—have support levels of 36 and 14 percent, respectively.

Reasons for support

Most supporters favor continuation because of custom and tradition

In nearly all the countries surveyed, the vast majority of women favoring continuation say that genital cutting is custom and tradition, or that it is a good custom (see Appendix Table 5). In Sudan, for instance, nearly 70 percent of supporters explain that they favor continuation because of custom and tradition. For many women, custom and tradition might be the most compelling reasons for justifying the continuation of these practices. It may also be that this response was the simplest and most succinct way that women could summarize all of the positive qualities they associate with cutting.

Some variation is observed in reasons given for favoring continuation

In the majority of countries surveyed, fewer than 20 percent of supporters are likely to give reasons such as preservation of virginity, marriage, husband's preference or pleasure, and cleanliness for favoring continuation. Even so, some differences in response patterns exist. Educated and urban respondents in Eritrea, especially men, are substantially more likely to mention that they want to see cutting continue because these practices preserve virginity and prevent immorality. Two-thirds of male supporters from Asmara mention these reasons (National Statistics Office and Macro International, 1997). Urban and highly educated women in Sudan are more likely than their rural and non-educated counterparts to give chastity-related reasons for their support (DOS and IRD, 1991). Supporters in CAR and Egypt are slightly more likely to say that cutting enhances marriageability and the husband's pleasure than respondents in other countries.

In Eritrea, Mali, and Sudan, the proportion of supporters who mention religion as a reason for their support is relatively constant, ranging from 12 to 16 percent. In Mali, however, the proportion of supporters mentioning religion varies substantially by region, religion, and ethnicity (Coulibaly et al., 1996). Supporters in Ségou (19 percent) and Mopti (35 percent) are much more likely to mention religion than those residing in other regions. Muslim supporters (14 percent) are more likely to give religion as a reason than Christians (1 percent). Religion is also a more commonly given reason among women in the Peulh, Sarakolé/Soninké, Dogon, and Sonraï ethnic groups.

Many Egyptian women support genital cutting for hygienic and religious reasons

In Egypt, substantial numbers of women mention cleanliness and religion as reasons for their approval of genital cutting (see Appendix Table 5). Among supporters, 36 percent specify cleanliness as a reason for approval. Slightly fewer women (31 percent) say they would like to see cutting continue because they believe it is a religious requirement.

Yemeni supporters also commonly give religion as a reason

Nearly 60 percent of supporters in Yemen mention religion as a reason for their approval. The percentage of women who approve of cutting in Yemen, however, is relatively small (21 percent). Since this is the case, the population-based estimate of ever-married women ages 15 to 49 in Yemen who approve of cutting for religious reasons is just 12 percent.

Egypt provides a unique source of information on respondent attitudes

Among the countries surveyed, Egypt is a unique source of information about women's cutting-related beliefs. In the other countries surveyed, the only information available on respondent attitudes toward cutting is based on their explanations for why they support or oppose cutting. In Egypt, all respondents were asked if they agreed or disagreed with a number of statements about cutting.

The results indicate that most Egyptian women associate positive outcomes with genital cutting (El-Zanaty et al., 1996). The vast majority of women surveyed believe that cutting is a religious tradition (72 percent) and that husbands prefer a woman who has undergone genital cutting (74 percent). Urban and educated women are less likely to agree that cutting is a religious tradition or that husbands prefer "cut" women. Even so, roughly half of women with at least a secondary-level education agree that cutting is supported by religion and husbands.

Far fewer women recognize adverse effects, agreeing that cutting can lessen sexual satisfaction (29 percent), potentially lead to death (24 percent), cause infertility (7 percent), and make childbirth more difficult (5 percent). Women who have completed secondary school or attended university are more likely to recognize that cutting can be fatal (45 percent) and reduce sexual satisfaction (48 percent). Any program in Egypt that strongly emphasizes the potential health effects of cutting, however, may generate even greater medicalization of these procedures. A broader-based educational approach in Egypt might be more useful, informing families about the religious, physical, and psychological issues related to genital cutting.

Reasons for opposing cutting

Many respondents oppose cutting because of medical reasons or because it is a "bad tradition"

Most respondents who oppose cutting say that these practices cause medical complications or are a "bad tradition" (see Appendix Table 6). A number of Egyptian, Eritrean, and Sudanese women who oppose these practices also mention that cutting is a painful personal experience. Opponents in CAR and Egypt are more likely than others to explain that these practices are against their religion. Eritrean men, and, to a lesser extent, Egyptian and Malian women are somewhat more likely than others to mention that these procedures adversely affect sexual satisfaction.

In many countries surveyed, those opposed to cutting comprise a small proportion of the total population. In Egypt and Mali, for instance, only 13 percent of women surveyed would like to see these practices end. Although a large proportion of women against cutting in Egypt disapprove for health reasons, this bloc of opposition totals just 6 percent of the population of ever-married women ages 15 to 49.

Types

Without a physical examination, obtaining precise information about the type of genital cutting a woman underwent is difficult. DHS findings on type are based on the self-reports of women, many of whom were operated on as children. A number of women may not remember or know what tissue was removed. Given the high prevalence levels in some countries and the limited access to information, some women may not be familiar with "uncut" genitalia.

Field research suggests that the nature of these procedures can vary markedly within and between communities, depending on the practitioner, girl, and family. Most likely, operators do not employ terms like clitoridectomy, excision or infibulation to describe their work. For the most part, these procedures are usually performed by traditional practitioners. Any number of factors—poor eyesight in the operator or the struggling of a child—could result in imprecise cutting.

Among the countries surveyed, Egypt is unique in having clinically-validated information available on the type of tissue removed from women during these procedures. In this section, findings from the clinical study conducted in Egypt will be discussed. Additionally, DHS survey findings on type will be presented, focusing on the prevalence of and support for infibulation among women.

Clinic-based study in Egypt on type of genital cutting

To investigate the type of genital cutting Egyptian women commonly undergo, the Egyptian Fertility Care Society conducted a study featuring two major components: a) interviews with women using the questions on genital cutting from the Egypt DHS survey; and b) post-interview pelvic examinations of the same women by gynecologists (Egyptian Fertility Care Society, 1996).[1] The study included 1,339 incoming family planning or gynecological clients of five University hospitals, several rural hospitals, and two urban clinics. In contrast to the EDHS 1995, the sample of women included in the clinic-based study was not nationally representative. Women in the clinic-based study tended to be younger, were less likely to reside in Lower Egypt, and had fewer children than the respondents in the EDHS 1995 sample (El-Zanaty et al., 1996).

The findings indicate agreement between self-reports and physical exams

The clinic-based study indicates a high level of agreement between women's self-reports of genital cutting and the evidence found by doctors through pelvic examinations. In more than 90 percent of the cases, women's self-reports match the findings from the physical examinations. Nearly 5 percent reported genital cutting in their interview, but doctors found no physical evidence. In about 2 percent of cases, women reported no genital cutting, but physical evidence was found.

[1] The study was funded jointly by the DHS Program and the Asia and Near East Operations Research and Technical Assistance Project of USAID.

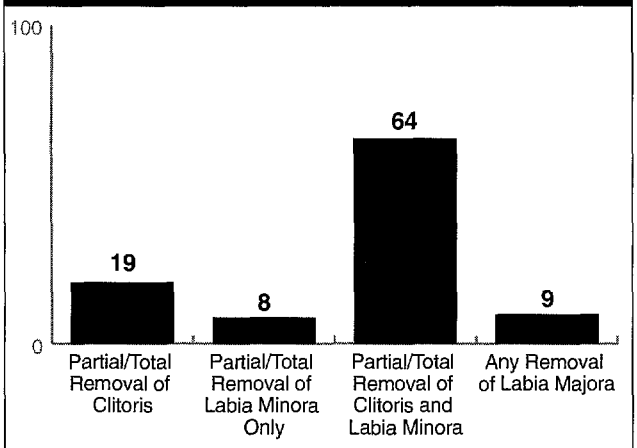
Cutting status in the clinic-based study, Egypt 1996	
Genital cutting in self-report and exam	91.8%
No genital cutting in self-report or exam	2.2%
Genital cutting in self-report, no evidence in exam	4.6%
Evidence in exam, but no genital cutting in self-report	1.5%

Source: El-Zanaty et al., 1996

Physical exams indicate that extensive cutting is common in Egypt

The majority of women in the clinic study population underwent extensive cutting. More than six of 10 women studied experienced at least partial removal of the clitoris and labia minora. Nearly 20 percent of the women underwent clitoridectomy. The most extreme type of cutting, however, is relatively rare. Doctors found that about one of 10 women underwent cutting of the clitoris, labia minora, and labia majora.

Types of genital cutting found by physical examination



Percent of sample population of Egyptian women who have undergone cutting

The amount of tissue removed varies little by the woman's age, urban-rural residence, education level, or type of operator (El-Zanaty et al., 1996). Of particular note, no detectable shift is evident toward less extensive forms of cutting over time in Egypt. For instance, 60 percent of women ages 15 to 24 underwent partial or total removal of the clitoris and labia minora, compared with 64 percent of women 35 to 39.

Infibulation: the most extreme form of cutting

Although many variations in cutting take place, DHS data are probably only reasonably accurate using two categories, differentiating infibulation from other usually less extensive procedures such as clitoridectomy or excision. Infibulation, which involves the excision of genitalia and closure of the vaginal opening by stitching, is generally considered the most extreme procedure. Often, an infibulated woman is left with only a small opening for urine and menstrual blood.

In practice, however, the continuum of extremity implicit in the genital cutting typology may not be wholly reliable. A number of researchers point out that an extensive excision can have the same barrier-like effect of infibulation if the wound heals improperly. Practitioners may also purposefully achieve infibulation without stitching by immobilizing a girl's legs after cutting until the wounded flesh fuses together (Andu, 1993). Finally, infibulation does not necessarily entail the removal of all external genitalia, with some operators infibulating women without performing clitoridectomy so as to reduce the risk of hemorrhage (Andu, 1993).

Infibulation is widespread in Eritrea and northern Sudan

Based on women's self-reports, infibulation is rare in Egypt and Mali, but widespread in Eritrea and northern Sudan. Among Eritrean women that have been cut, one-third have been infibulated. Although infibulation has been against the law in Sudan since the 1940s,[2] this procedure is still common. More than 80 percent of northern Sudanese women who have undergone cutting have been infibulated.

Percent of women who have experienced infibulation

Country	Genital cutting with closure of the vulva
Egypt	1
Eritrea	34
Mali	1
Sudan	85[a]

a. In Sudan, roughly 3 percent of women in this category reported undergoing the "intermediate" form of circumcision. Although this form can vary, it usually involves the extensive cutting and vulval closure characteristic of infibulation. Reportedly, this procedure may leave women with a slightly larger vaginal aperture than the "standard" infibulation. Since this type involves vulval closure, it is considered a form of infibulation throughout the tables in this section (Kheir et al., 1991).

[2] According to Toubia (1995), this law was eliminated from the country's 1991 legal revisions, leaving its current authority uncertain.

The prevalence of infibulation in Sudan varies most by religion and region

In northern Sudan, the prevalence of infibulation shows the greatest variation by woman's religion and region of residence (see Appendix Table 7). Among those who have undergone genital cutting in Sudan, 86 percent of Muslim women have been infibulated, compared with 54 percent of Christian women. Infibulation also appears to be nearly universally practiced among women in the Northern region, but is somewhat less prevalent in the Eastern and Darfur regions.

The prevalence of infibulation in Eritrea varies by education, religion, ethnicity, and residence

In Eritrea, the prevalence of infibulation varies markedly by education, religion, ethnic group, and residence (see Appendix Table 7). Among those who have undergone cutting, 46 percent of women who have never been to school have been infibulated, compared with fewer than 13 percent of women with some education. As in Sudan, the differences between Muslims and Christians are substantial. Among Muslim women, 82 percent report having undergone infibulation, compared with 2 percent of the Christian women.

In some ethnic groups, infibulation is nearly universal. Among those who have undergone cutting, more than 90 percent have been infibulated among the Hedarib, Nara, Tigre, Bilen, and Afar. Substantially fewer women have experienced the most extreme form of cutting among the Saho (41 percent), Kunama (31 percent), and Tigrigna (1 percent). Infibulation is more common among rural women (44 percent) than urban women (13 percent). Regional differences, which probably reflect religious and ethnic affiliation, are also striking. Infibulation, for instance, appears to be nearly nonexistent among women in the Southern and Central zones of the country.

Attitudes toward infibulation among Eritrean and Sudanese women

> "When asked why is FGM a part of our culture and still practiced, many men and women gave me different answers...The most common response was that chastity is a woman's only virtue and all measures have to be taken to maintain it. A popular analogy given was: A closed door is definitely less inviting to a thief than an open one...Women have to be protected, and infibulation is the defense mechanism..."
> *Almaz Andu, Eritrea (Andu, 1993)*

Many women would like to see infibulation continue

In Eritrea and Sudan, a number of women support the continuation of infibulation.[3] Nearly one-fourth of women in Eritrea favor its continuation. Male support in Eritrea, however, is consistently lower than female approval. In Sudan, two in five ever-married women would like to see infibulation continue. However, there is considerable variation in support for infibulation among Sudanese women. Those much less likely to favor continuation of infibulation include educated women, Christians, and residents of urban areas and the Khartoum and Darfur regions (DOS and IRD, 1991).

Support for genital cutting and infibulation among all respondents

	Percentage who support continuation of:		
Country	**Genital cutting without closure**	**Infibulation**	**Number of respondents**
Eritrea			
Women	32	24	5,054
Men	31	13	1,114
Sudan			
Women	38	40	5,860

Note: All women 15-49 and all men 15-59 in Eritrea; ever-married women 15-49 in northern Sudan.

Many infibulated women support the continuation of infibulation

Support for infibulation is widespread among women who have been infibulated. The majority of infibulated women in Eritrea and Sudan would prefer to see this most extreme form of cutting continue. In Eritrea, three of four infibulated women favor infibulation. Support in Sudan is somewhat less pronounced, with about half of infibulated women favoring continuation. Very few women in Eritrea or Sudan with less extensive types of cutting endorse infibulation.

[3] Women who oppose genital cutting were not asked questions about the type they would prefer to see continue.

In Sudan, most women who have undergone genital cutting support the continuation of these practices. Only those who have not experienced cutting are substantially less likely to favor continuation. In Eritrea, support for these practices is only very high among women who have been infibulated. Support is substantially less pronounced among women who experienced less extensive forms of cutting.

Women's attitudes toward the continuation of genital cutting and infibulation, by cutting status

Cutting status	Support continuation of genital cutting (%)	Support continuation of infibulation (%)	Number of women
Eritrea			
Not cut	14	3	279
Infibulated	81	75	1,624
Cut, but not infibulated	48	<1	3,144
Sudan			
Not cut	17	3	634
Infibulated	85	52	4,442
Cut, but not infibulated	90	3	775

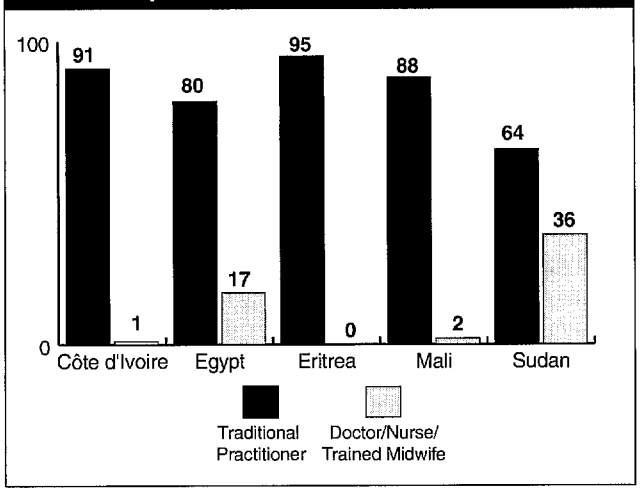
Conditions and Health Effects

Policy documents on genital cutting highlight the negative effects of cutting on women's health and well-being. The conditions and potential complications of genital cutting have been documented over the years by a number of groups, including medical professionals, anthropologists, and advocates. Except for Sudan, however, national-level information on conditions and complications has not been previously available. This section includes a discussion of research findings on cutting-related health effects, with an overview of DHS results on the practitioners of these operations and the medical complications that women report.

Traditional practitioners perform most operations

In all of the countries surveyed, traditional practitioners perform the majority of genital cutting. In Côte d'Ivoire, a variety of traditional practitioners perform these procedures, most commonly traditional birth attendants (47 percent), "old women" (31 percent), and excisers (12 percent) (Sombo et al., 1995). Women in Eritrea and Mali are most often cut by operators that specialize in genital cutting. In Mali, these operators are often women from the blacksmith's "caste" (Dorkenoo and Elworthy, 1992). Traditional midwives perform the majority of procedures in Egypt, but many mothers are increasingly consulting doctors to perform these operations on their daughters (see Generational Differences section). In Sudan, a substantial proportion (35 percent) of women are also operated on by trained midwives.

Percent of cutting done by traditional practitioners



Data on health effects

The effects of cutting are difficult to measure based on self-reports

DHS collected a limited amount of information on the health effects of genital cutting in CAR, Egypt, and Eritrea. For a number of reasons, measuring the physical, mental, and sexual health effects of genital cutting on women is challenging. Since many women underwent these procedures as infants, they may not remember any immediate adverse effects. Complications that develop over time or arise during childbirth may not be linked by women to surgery they underwent as children. Women also probably have different conceptions of illness than researchers. For instance, symptoms that researchers ascribe to cutting-related complications may be considered normal and natural to women, especially among populations where genital cutting is nearly universal.

The samples of women that DHS surveyed were limited to those who survived cutting-related complications. The fatalities have not been measured or inquired about via sisters or other family members. In countries such as Egypt and Sudan with samples limited to ever-married women, those whose complications rendered them "unmarriageable" would not have been included in the survey.

The survey is also probably not an adequate instrument for eliciting information from women on the possible sexual effects of these procedures. Topics related to female sexuality are often taboo, highly subjective, and complex, lending themselves more to clinical or anthropological methodologies than large-scale survey research.

Potential health effects according to the research literature

In many countries where genital cutting is practiced, infants, girls, and teenagers are especially at risk for various interrelated reasons, including:

(1) **Practitioner.** DHS data and other research suggest that the majority of operations are performed by traditional practitioners, including midwives and barbers. Many of these "circumcisers" have no medical training or formal knowledge of anatomy.

(2) **Instruments.** Field research suggests that practitioners often use unsterilized equipment such as razor blades, knives, and string or wire. To fasten the wounds of infibulated women, practitioners may use thorns or string. The use of these materials can increase the probability of infection, damage to adjacent tissues from inaccurate cutting, and other problems.

(3) **Context.** Since many procedures take place outside of medical facilities, post-operative care may be inadequate or unavailable. When complications result, girls may not obtain medical assistance because of limited access to health care information and services. They may also be reluctant to broach sensitive subjects with medical professionals.

Researchers have documented a number of medical complications associated with genital cutting (Baker et al., 1993; Dirie and Lindmark, 1991; Ericksen, 1996; Sami, 1986; Toubia, 1995; Verzin, 1975). In general, doctors consider infibulation to be far more physically hazardous for women than procedures such as clitoridectomy or excision. Some of the possible effects of genital cutting include:

Intense pain. Operators perform many procedures without anesthetic, cutting into genital tissue that is dense with nerve endings.

Hemorrhage. Cutting and inadequate suturing can lead to heavy, and sometimes life-threatening, blood loss. Hemorrhage may also result from the rupturing of infected scar tissue.

Shock. Girls may experience intense fear, pain, and hemorrhage during and after these procedures, resulting in shock.

Infection. In some countries, genital cutting may be performed en masse on groups of infants or girls. The use of unsterilized equipment by operators can lead to tetanus, and, theoretically, HIV infection. The wound left after cutting can become infected, increasing the risk of reproductive tract and pelvic infections.

Improper healing. The wounded tissues may heal improperly, leading to excessive scar tissue and the fusion of tissue over the vaginal area.

Injury. The use of imprecise tools and/or the struggles of the child can result in injury to other organs and glands.

Some of the more serious complications faced by infibulated women include:

Chronic infections. Infibulation usually leaves a larger wound than other procedures, heightening the risk of infection. In addition, women may need to be recut before intercourse and at delivery, increasing their vulnerability to infection. In a tightly infibulated woman, the flow of urine and other secretions may be obstructed, leading to infection.

Infertility. Chronic reproductive tract infections can lead to infertility.

Difficulty in peforming pelvic exams and monitoring labor. Medical professionals may not be able to perform a pelvic exam on a tightly infibulated woman. During delivery, infibulation can make vaginal exams difficult and painful, preventing medical professionals from monitoring the progression of labor via cervical dilation (Baker et al., 1993).

Complications in labor. During delivery, some doctors believe that infibulated women need two or more episiotomies (Dirie and Lindmark, 1991). Women who give birth unassisted are at risk of prolonged labor, which can damage organs. In some cases, these complications lead to internal tearing that cause continual urinary and/or fecal incontinence. Prolonged labor can also threaten the survival chances of both mother and child.

Painful intercourse. In the case of tightly infibulated women, the husband may be unable to penetrate the vaginal opening and injure or tear the genital tissue in his attempts. Scar tissue may also make intercourse painful.

Psychological and sexual effects

Although not widely studied, a number of doctors believe that the psychological and sexual effects of genital cutting on girls and women are significant. The psycho-sexual effects of these procedures, however, are less easily measured than medical complications. Among the effects documented by researchers are anxiety, depression, trauma, as well as distrust of caregivers, frigidity, and marital conflict (El Saadawi, 1980; Toubia, 1993; WHO, 1996a).

Genital cutting usually involves the removal of some or most of the genital tissues that are primary areas of sexual sensitivity for women. Although the sexuality of women that have undergone cutting has not been widely studied, it is believed that removing the clitoris and surrounding tissue sharply reduces a woman's capacity for sexual fulfillment (Toubia, 1995). Genital cutting may also leave a woman with damaged nerve and scar tissue that makes intercourse extremely painful (WHO, 1996b).

Health problems reported by women

Substantial numbers of women in CAR and Eritrea reported health problems related to genital cutting (see Appendix Tables 8 and 9). Among women who have undergone these procedures, around one-fourth in CAR and one-fifth in Eritrea reported some type of complication. Egyptian women were less likely to say they had any problems, with fewer than 5 percent of women reporting that they or their most recently cut daughters experienced complications (El Zanaty et al., 1996).

Hemorrhage is a major problem according to women in CAR

Among women in CAR who reported problems after undergoing cutting, the most common complications were hemorrhage (64 percent), pain (41 percent), and fever (21 percent). Women were less likely to report infection (6 percent) or difficulty urinating (6 percent). The reported level of infection, however, may be an underestimate. Many women in CAR experienced fever, which is often a sign of infection.

Sex- and delivery-related problems are widespread among Eritrean women who underwent excision or infibulation[1]

In Eritrea, women were interviewed only about complications related to sexual intercourse and delivery. Overall, nearly one in five Eritrean women who underwent genital cutting reported a problem during sexual relations and/or delivery. Women who experienced more extensive cutting were much more likely to report complications. For instance, among infibulated women, 38 percent reported a complication. Women who underwent clitoridectomy were least likely to report a problem (6 percent).

A number of Eritrean women, especially those who underwent excision or infibulation, reported problems during sexual relations. Overall, 12 percent of sexually experienced women who have undergone genital cutting reported problems. This figure rises dramatically among women who underwent excision or infibulation, with 31 and 25 percent, respectively, reporting sex-related complications.

A similar pattern is seen among those Eritrean women reporting problems during childbirth. Overall, 17 percent of mothers reported delivery-related problems related to genital cutting. While 5 percent of women with clitoridectomies reported complications, 33 percent of infibulated women and 40 percent of women who underwent excision had cutting-related problems during delivery.

Few Eritrean women received health care for their problems

Among Eritrean women who experienced complications, few received any type of medical treatment (see Appendix Table 10). Overall, three-fourths of women reported that they received no treatment for their cutting-related problems. The remaining women obtained services from a health institution (16 percent) or traditional healer (10 percent). Those women most likely to report problems, infibulated women and women who have undergone excision, are also least likely to obtain medical assistance. For instance, nearly 84 percent of infibulated women reported receiving no medical treatment for their complications.

[1] In Eritrea, women were asked if they had one of three types of procedures: clitoridectomy, excision, or infibulation. Since type was not defined in the survey, these figures reflect a respondent's own judgment of the type of cutting she underwent. It is generally understood that clitoridectomy is the least invasive, excision the next most invasive, and infibulation the most extreme type.

Estimated number of women adversely affected in CAR, Egypt, and Eritrea

Based on women's self-reports, problems related to genital cutting represent a public health issue of some magnitude. Women who experienced problems in CAR and Eritrea comprise a substantial proportion of the total population of women in these countries between the ages of 15 and 49. In CAR and Eritrea, more than 250,000 women experienced health-related problems due to genital cutting. Even in Egypt, where a relatively small proportion of women reported complications, more than 800,000 experienced adverse effects.

The findings suggest that in these countries alone more than one million women ages 15 to 49 experienced health problems related to genital cutting. For a number of reasons, this figure probably represents a substantial underestimate of the people adversely affected. The number of infants and girls under age 15 who experience problems is unknown. In Eritrea, women were interviewed only about complications related to sex or delivery. They were not queried about problems that they may have experienced outside of sexual relations or delivery such as hemorrhage and infection. Finally, cutting-related problems a woman experiences may adversely affect the health and well-being of her family. Delivery-related complications, for example, can affect the health and survival of both mother and child.

Opposition to genital cutting for health reasons

In a number of countries, medical complications are a common reason respondents give for opposing female genital cutting. These data, however, represent only the attitudes of respondents opposed to genital cutting. The findings do not reflect overall respondent knowledge about potential health complications. Except for Egypt, researchers did not query all respondents about their knowledge of health complications. Since this is the case, the findings on opposition for health reasons probably underestimate the extent to which women associate health problems with cutting. Women who support the continuation of genital cutting may also understand the potential health risks involved. To them, however, the perceived benefits of cutting may outweigh the risks.

Prevalence of cutting-related problems

Country	Type of problems covered in survey	Percent of women who have undergone cutting who report problems	Percent of all women age 15–49 affected	Estimated number of women age 15 or older affected in population[1]
CAR	Any health problems	27	12	115,868
Egypt	Any health problems	5	4	856,704
Eritrea	Problems with sexual relations and/or delivery	19	15	141,925

[1] These estimates are based on the United Nations medium variant population projections for 1995. To obtain these figures, the percentage of women that experienced health problems in the survey was applied to the population projections for all women ages 15 and older in CAR, Egypt, and Eritrea. In calculating these figures, two assumptions have been made: (1) The incidence of problems for women 15 to 49 also reflect the experiences of women ages 50 and older; and (2) The incidence levels for never-married and ever-married women in Egypt are equivalent.

These data may also underestimate the extent of opposition for medical reasons because the most common response women give for opposing genital cutting is that it is a "bad tradition or custom." Respondents were not prompted to elaborate on this response. It is possible, however, that respondents consider genital cutting a "bad tradition" for any number of reasons, including adverse health effects. Only those who specifically mention health complications as a reason for their opposition are considered in this section. For these respondents, health complications may be a particularly salient reason for opposing cutting. Their opposition may serve as a rough proxy for respondent recognition of the severity of health risk associated with these procedures.

Medical complications are a common reason given for opposition to genital cutting

In all countries surveyed except for CAR, medical complications are a commonly given reason for female and, in the case of Eritrea, male opposition to genital cutting. Around one-half of women opposed to genital cutting cite medical complications as a reason for their opposition in Egypt, Mali, Sudan, and Yemen. Eritrea has somewhat lower levels of opposition for health reasons among women. Eritrean men, however, show strong concern for the health effects of genital cutting, with 76 percent of those opposed to these practices giving medical complications as a reason.

Opposition to genital cutting for health reasons

	Respondents Opposed to Genital Cutting		All Respondents	
Country	**Percentage opposed for health reasons**	**Number of women/men**	**Percentage opposed for health reasons**	**Number of women/men**
CAR	13	3,285	7	5,884
Egypt	46	1,882	6	14,779
Eritrea				
Women	37	1,940	14	5,054
Men	76	462	32	1,114
Mali	45	1,234	6	9,704
Sudan	50	1,256	11	5,860
Yemen[1]	52	3,436	32	5,687

[1] In Yemen, this figure represents women opposed to genital cutting because the practice is "not good for the girl." The assumption is that this response is based on health-related reasons. In the other countries, respondents specifically mentioned medical complications as a reason for opposition.

Opposition for health reasons among all respondents

In most of the countries surveyed, those who oppose genital cutting are a minority of the total population of respondents. Those opposed who specifically mention health reasons comprise an even smaller group. Opposition for health reasons exceeds 10 percent of the respondent populations in only three countries: Eritrea, Sudan, and Yemen. Eritrean men and Yemeni women are most likely to find health reasons a compelling rationale for opposition. Nearly one in three Eritrean men is opposed to genital cutting because of medical complications. This surpasses the level of opposition among Eritrean women, which is 14 percent. One-third of Yemeni women also oppose genital cutting because it is not "good for the girl."

In Egypt and Eritrea, the proportion of women opposed for health reasons is close to the level of women in the sample population that reported experiencing cutting-related complications, 5 and 15 percent, respectively. The figure for CAR (7 percent) is somewhat lower than the 12 percent that reported health problems related to genital cutting.

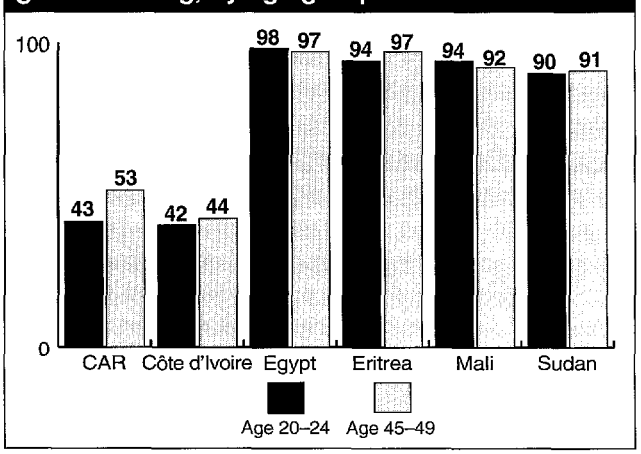
Generational Differences

This section examines the experiences of different generations of women, with the aim of illuminating any changes related to genital cutting in the countries surveyed. The prevalence levels and attitudes among younger and older women will be compared to determine whether any change is evident among those age 15 to 49. Additionally, the experiences of the daughters of respondents will be examined, providing information on the extent to which these practices affect younger generations of women.

Little difference in prevalence among younger and older women

Overall, most younger women are nearly as likely to undergo these procedures as their mothers before them. A comparison of prevalence levels between age groups shows little or no decline in genital cutting. In nearly all of the countries surveyed, only a two or three percentage point difference is found between the prevalence levels among younger and older women.

Percentage of women who have undergone genital cutting, by age group



CAR is the only country to display a slight, but continuous, decline in prevalence across age groups of women. About four of 10 younger women report having undergone genital cutting, compared with five of 10 women age 45 to 49.

Sudan shows little difference in prevalence levels between age groups, but comparisons with other national surveys done in the country suggest a slight decline since the 1980s. The 1978-79 Sudan Fertility Survey and a 1981 survey found prevalence levels among women in northern Sudan of 96 and 99 percent, respectively (Kheir et al., 1991). The surveys conducted in Sudan, however, are not strictly comparable, with small differences in the respondent samples between studies.[1]

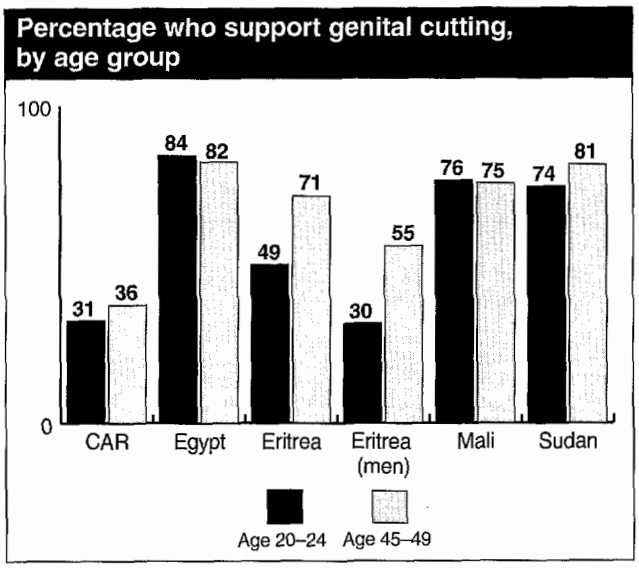
Support among younger and older respondents

Except in Eritrea, there is little difference in support between younger and older respondents

Overall, the results reflect minor generational differences in the attitudes of women toward genital cutting. In Egypt and Mali, younger women are as likely as older women to approve of these practices. Slightly smaller proportions of younger women favor continuation in CAR and Sudan.

Eritrea displays the most dramatic decline in support across age groups of women and men. Younger respondents are substantially less likely than older respondents to support continuation of cutting. Again, some writers have speculated that the participation of Eritrean women in the war against Ethiopia as well as the efforts of the Eritrean People's Liberation Front to abolish genital cutting transformed societal attitudes toward these practices (Araya, 1997; Dorkenoo and Elworthy, 1992).

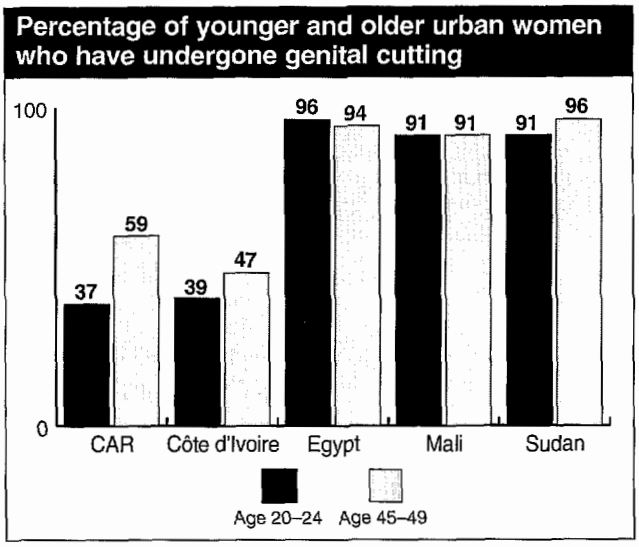
[1] The 1981 survey included all women age 10 and older, not just ever-married women 15 to 49. Also, in contrast to the 1989/90 DHS survey, the 1981 survey excluded women from the Northern region of northern Sudan.



Prevalence of cutting among younger and older urban women

Urban women are often a relatively elite segment of society, with greater education and affluence than others in the country. Generational differences in behavior among urban women may prefigure changes that eventually take place in the rest of the country. In most of the countries surveyed, however, younger and older urban women are about equally likely to have undergone genital cutting. Prevalence levels among different generations of urban women remain at least 90 percent in Egypt, Mali, and Sudan.

CAR is the only country with a striking difference between these groups of women. In CAR, younger urban women are much less likely to have undergone genital cutting than older urban women. Thirty-seven percent of young urban women in CAR underwent cutting, compared with 59 percent of women age 45 to 49. Much of the overall difference in prevalence levels between age groups in CAR may be due to behavior changes among urban women. In Côte d'Ivoire, minor generational differences in prevalence levels may signal the beginning of change among urban families.



Generational differences among highly educated women in Egypt

Among educated women, genital cutting practices are not necessarily less widespread among younger women. In Egypt, for instance, genital cutting appears to be a more common and accepted practice among the most educated younger rather than older respondents. More than 90 percent of women in their twenties with a secondary-level or higher education have undergone genital cutting, compared with 77 percent of women ages 45 to 49 with this level of education. The attitudes among younger educated women also appear more supportive of cutting. Only 29 percent of highly educated women 45 to 49 want to see cutting continue, compared with 66 percent of those 25 to 29.

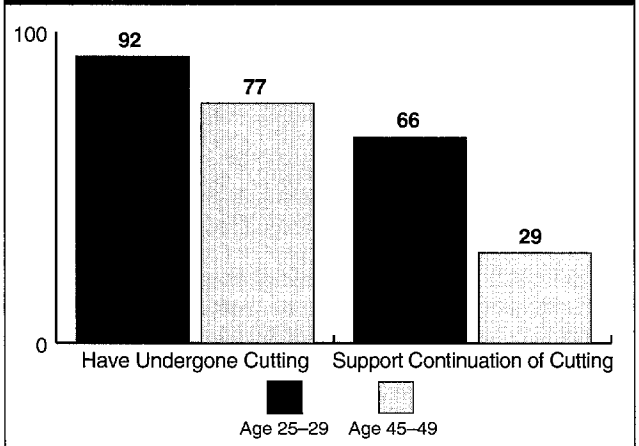
A number of explanations may account for the generational differences among highly educated women in Egypt. These findings could signal a growing conservatism among the most educated. In particular, the results may reflect an increasing receptiveness among educated families to practices that have been sanctioned by religious

leaders, many representing institutions of Islamic scholarship such as Cairo's Al-Azhar University (Aldeeb, 1994).

The findings may also reflect the unique status of Egyptian women in their forties who finished secondary school or attended university. Overall, women in their twenties are far more likely than those in their forties to have attained higher levels of education. Those women in their forties who did finish secondary school may represent a far more elite group than those in their twenties with this level of education.

Overall, these results suggest that education alone may not engender major changes in cutting-related attitudes or behaviors. Although women's access to education in Egypt has increased dramatically in the past 20 years, the majority of educated young women support continuation of cutting. Cutting-related practices may warrant a more focused programmatic approach.

Generational differences among educated women in Egypt



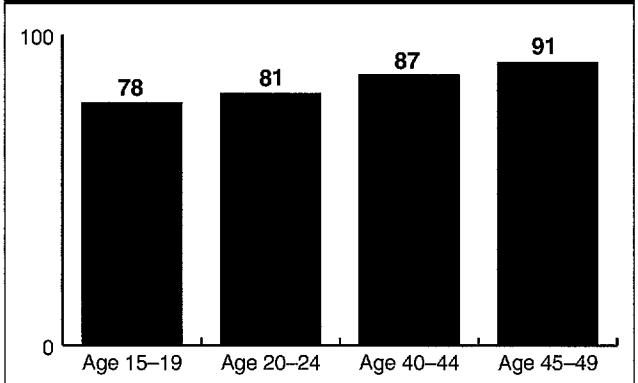
Note: Percentages based on those with secondary or higher education

The prevalence of infibulation among younger and older women

Slight shift toward less extreme cutting over time in Sudan

The Sudan survey suggests a slight shift from the most extreme procedure, infibulation, to clitoridectomy or excision across age groups of women. In Sudan, younger women are slightly less likely to have been infibulated than women in their forties. For instance, among women that have been cut, 91 percent of those ages 45 to 49 were infibulated, compared with 81 percent of women 20 to 24. This is still, however, the highest level of infibulation found among the countries with data available on type.

Percentage of Sudanese women who have undergone infibulation



Note: Ever-married women who have undergone cutting

No consistent decrease in infibulation across age groups of Eritrean women

In Eritrea, no consistent decrease in infibulation is apparent across age groups of women (see Appendix Table 7). Teenagers between the ages of 15 and 19 are somewhat less likely to have undergone infibulation (25 percent) than young adult women ages 25 to 34 (around 40 percent).

But teenagers are nearly as likely as slightly older women in their mid- to late 40s (29 percent) to have been infibulated.

Experiences of the next generation: mothers report on their daughters

To obtain more information on generational differences, women in some countries were asked whether or not their daughters had undergone genital cutting. The information on daughters provides an indication of whether genital cutting may be becoming less common, particularly among the offspring of urban and educated women. The information on daughters, however, does not reflect prevalence among girls. Some of the daughters, for example, may be young women in their twenties. In addition, the experiences of all daughters are unknown in Eritrea and Mali.

The findings on daughters are presented on a country-by-country basis because the information collected is not directly comparable. In Egypt, researchers asked women whether they had or intended to have any of their daughters undergo cutting. In Eritrea, women were asked only whether their eldest had undergone cutting. Malian women discussed whether their eldest daughter had undergone or will undergo cutting. Researchers asked Sudanese women about the status of all of their daughters.

Egypt

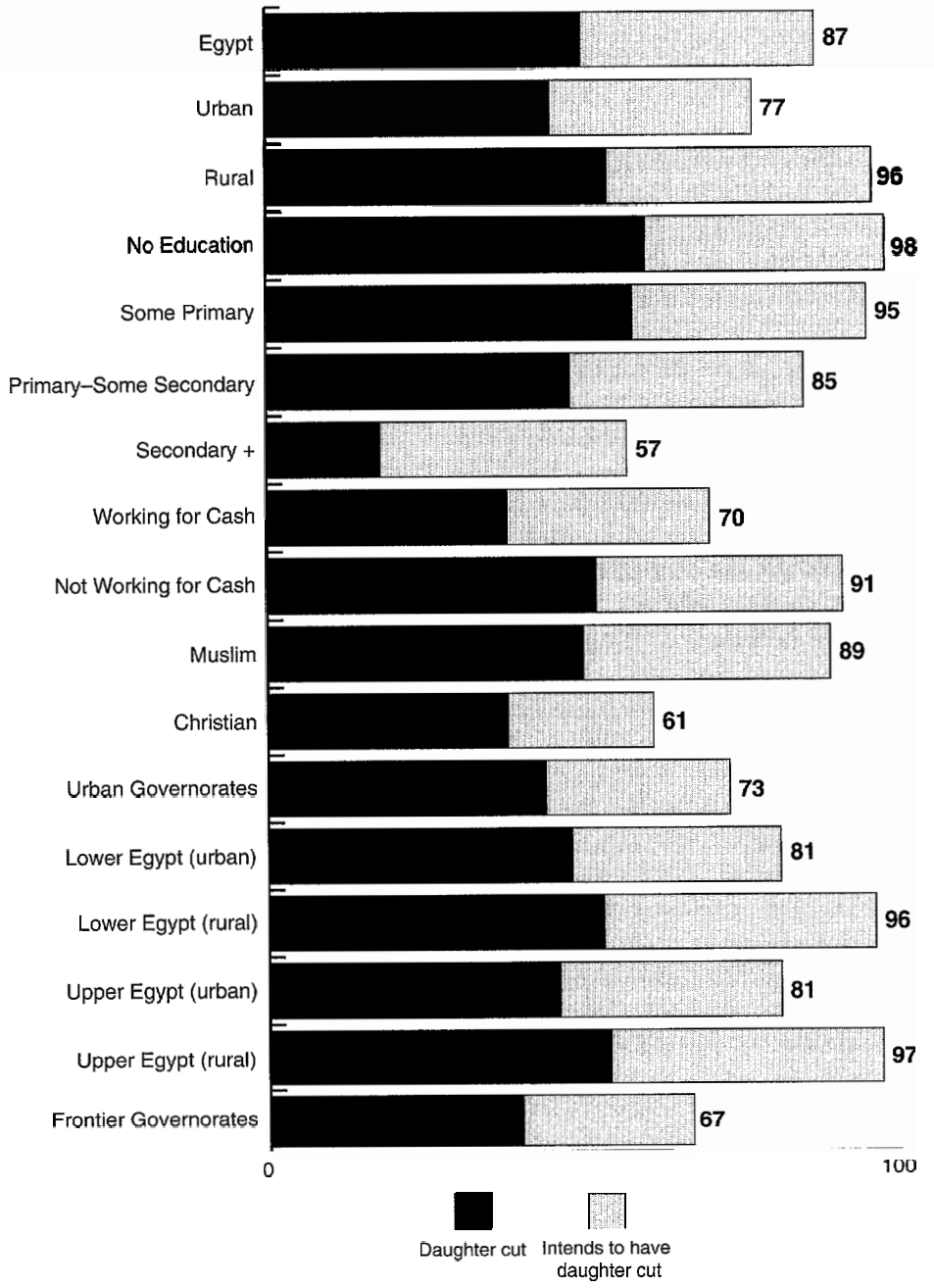
Prevalence is likely to remain high among the younger generation of Egyptian women

The vast majority of Egyptian mothers report that they will maintain the tradition of genital cutting. Nearly nine of 10 Egyptian mothers with daughters have had or intend to have a daughter undergo genital cutting. Although this level does vary among mothers with different background characteristics, the DHS results suggest that prevalence in Egypt will remain high among most groups. Among rural, less educated, and non-cash earning women, for example, more than 90 percent say that they have had or intend to have a daughter operated on. The vast majority of young Muslim women are also likely to undergo cutting.

Change is most likely among the offspring of educated and Christian women

Overall, two groups of Egyptian mothers show substantial evidence of changing their cutting-related practices: women with at least a secondary-level education and Christians. Cutting may also become less prevalent among the daughters of income-earning women as well as those residing in the Frontier and Urban Governorates.

Percentage of women who have at least one daughter cut or intend for a daughter to be cut



The experiences of mothers and daughters: increasing medicalization in Egypt

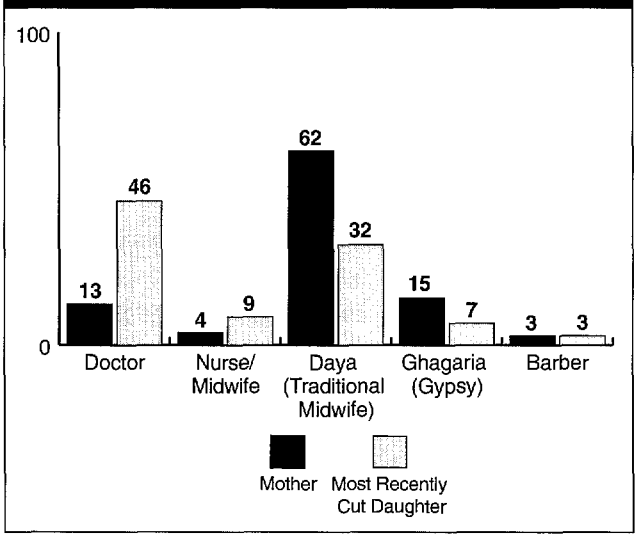
"Fighting Circumcision of Girls"

"This is the story of a 31-year-old woman who came to Cairo 16 years ago from the countryside after her marriage...This woman can never forget the awful experience she went through when she was only six. She was on her way back home from the canal where she was washing dishes. Only a few yards from home, an older neighbour of hers grabbed the dishes from her head and dragged her into his house. There, the young girl was surprised to see unusual hustle and bustle and hear girls screaming...Leaning over the prostrate girls was an old woman holding a razor...She can't forget the incredible pain she went through while the woman was trying to remove part of her body with a blunt razor...Despite this unforgettable experience, the woman is resolved to advise her relatives to put their daughters through the same nightmare. The only thing she is mad about is the use of a blunt razor and the unskilled woman who carried out the operation. A doctor can do much better, she says. She stresses that the Minister of Health was not right to ban circumcisions at public hospitals and to bring to question any physician who violates such a decision. People will not follow these rules, she argues..."
The Egyptian Gazette, September 15, 1996

Cutting is increasingly performed by medical professionals in Egypt

In Egypt, researchers collected detailed information about the conditions under which mothers and daughters experienced genital cutting. The findings reveal that medical professionals are increasingly performing genital cutting on younger women (El Zanaty et al., 1996). Among the most recently cut daughters of survey respondents, 55 percent were operated on by medical professionals. In contrast, only 17 percent of mothers were cut by a doctor or nurse/midwife. For the most part, these generational differences reflect a shift in the preferred service provider from traditional midwife to doctor.

Practitioners of genital cutting in Egypt

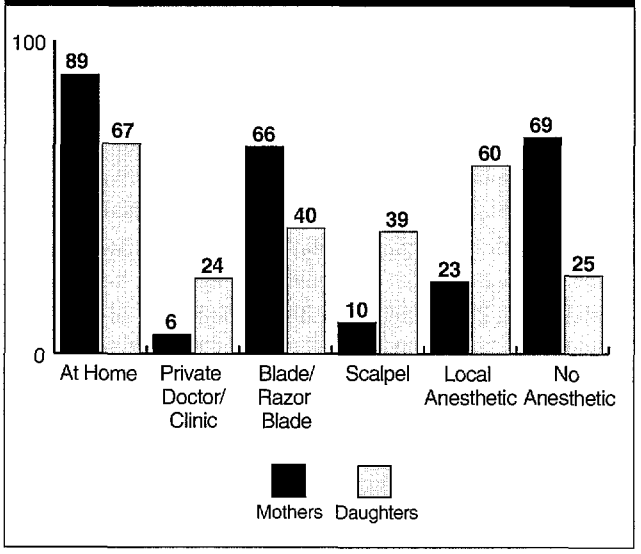


Other differences in the experiences between women and their most recently cut daughters further confirm the trend toward medicalization in Egypt. Daughters are much more likely than their mothers to have been operated on by a doctor in a private clinic; cut by a scalpel rather than a razor blade; and given anesthetic. For example, 60 percent of daughters received local anesthetic, compared with 23 percent of mothers.

The experiences of many daughters, however, still mirror those of their mothers. The majority of procedures continue to take place at home. Additionally, 40 percent of girls were cut by a razor blade of some type, while 25 percent did not have anesthetic.

Despite increasing medicalization, these operations are not risk-free. The involvement of medical professionals can introduce other potential health problems. Some recent deaths among girls in Egypt, for instance, have been attributed to improperly administered anesthetic (Lancaster, 1996).

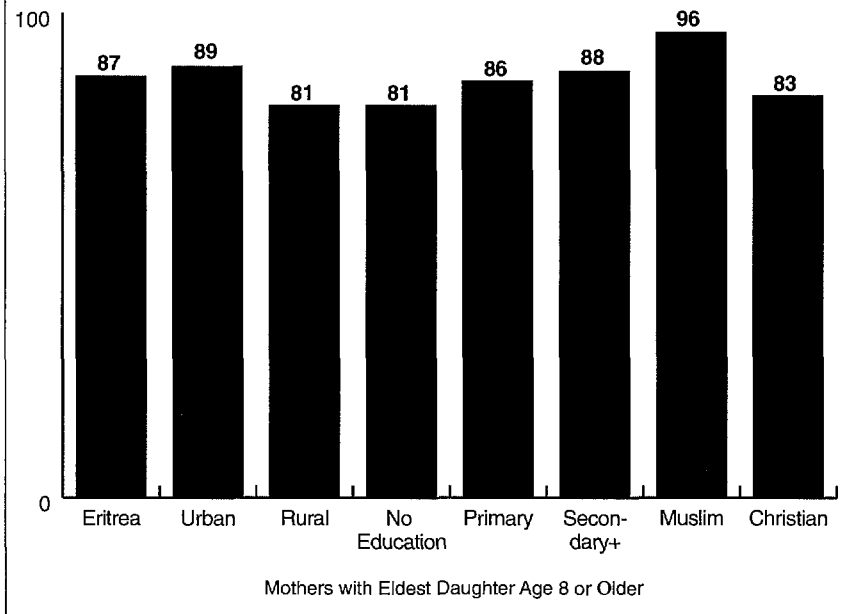
Conditions of genital cutting for women and their daughters in Egypt



Eritrea

In Eritrea, mothers were queried about whether their eldest daughter had undergone genital cutting. Mothers who reported that their eldest daughter was intact, however, were not surveyed about their intentions to have this daughter cut. Since their intentions were not determined, it is difficult to estimate the full extent to which eldest daughters will experience cutting in Eritrea. To address this situation, the analysis includes only those mothers whose eldest daughter is age eight or older. Age eight was chosen as the cutoff point because 97 percent of women surveyed (excluding missing and don't know responses) underwent genital cutting by this age. The actual level of genital cutting among eldest daughters may be slightly different since a small percentage of daughters may still not have been cut by this age and the population of mothers with daughters ages eight and older may be slightly older than the total sample of mothers. Overall, this population of mothers does have a slightly higher prevalence level (97 percent) than the total sample of women in Eritrea (95 percent).

Percentage of women who report that their eldest daughter has been cut



Note: The number of mothers with at least some secondary level education is 43. Since the 'n' is small, this information should be interpreted with caution.

High levels of cutting among eldest daughters in Eritrea

Most Eritrean mothers with daughters age eight or older are upholding the tradition of genital cutting, with nearly 90 percent reporting that their eldest daughter has been cut. Overall, little variation exists in the level of cutting among eldest daughters. More than 80 percent of women from nearly all educational levels, religions, and ethnic groups report that their eldest daughter has undergone this procedure.

Mali

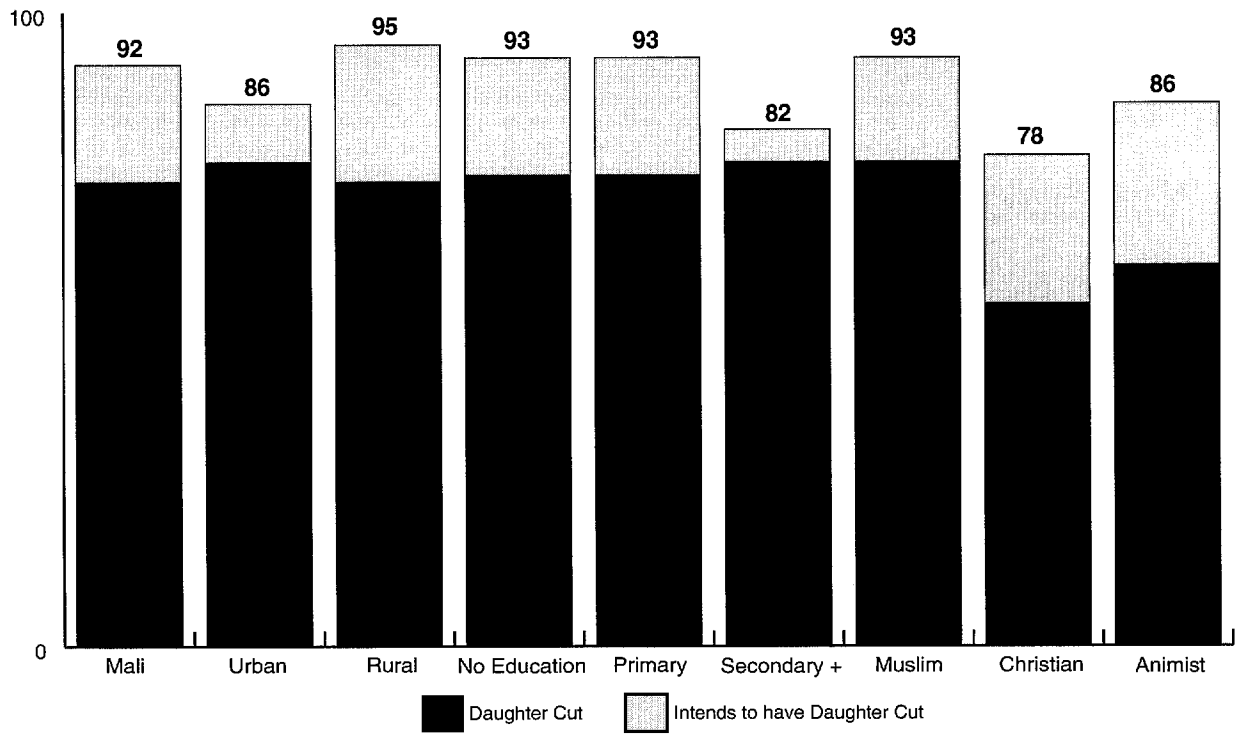
Genital cutting is nearly universal among eldest daughters

The prevalence of genital cutting in Mali is likely to remain high among the younger generation of women since the majority of mothers are maintaining the tradition of having their daughters cut. Nine of 10 mothers report that their eldest daughter either has been or will be cut. This figure exceeds 90 percent among mothers of all ages, suggesting that these practices are probably nearly universal among the current generation of young women in Mali.

There is relatively little variation among different groups of mothers

In Mali, mothers with different background characteristics are about equally likely to have their daughters cut. Across nearly all groups, more than 75 percent of mothers say that they have had or will have their eldest daughter undergo cutting. In general, little variation exists by region or ethnic group (see Appendix Table 13). More than 87 percent of women in all of the regions except the small cities of Timbuktu and Gao (6 percent) report having had or intending to have their eldest daughters cut. More than 90 percent of mothers in Mali's largest ethnic groups

Percentage of women who have had or intend to have their eldest daughter undergo cutting



affirm that these practices will continue among their eldest daughters. Only mothers in two small ethnic groups, the Sonraï (47 percent) and Tamacheck (15 percent), are substantially less likely to have their daughters cut.

Cutting is slightly less common among the eldest daughters of educated, urban, and Christian mothers

The daughters of more educated, urban, or Christian mothers may be slightly less likely to undergo cutting. Among Christians, for example, 78 percent report their eldest has been or will be cut, compared with 93 percent of Muslim mothers. Even among these groups, however, the vast majority of mothers will uphold tradition. Slightly more than 80 percent of the most highly educated mothers, for example, report that their eldest daughter has undergone or will undergo cutting.

Sudan

Cutting is likely to remain common among the younger generation

In Sudan, nearly nine of 10 mothers report that all of their daughters have undergone or will undergo genital cutting. Cutting will probably continue to be nearly universal among young women in the Northern, Kordofan, and Central regions, with 93 percent or more mothers intending to have all of their daughters cut. Overall, mothers from different backgrounds show relatively little variation in practices and intentions regarding their daughters. The vast majority of mothers—regardless of education, residence, and age—will ensure that their daughters are cut (see Appendix Table 14). Even among the most educated mothers, 77 percent report that their daughters have been or will be cut. These figures suggest that the overall prevalence levels of cutting among the younger generation will remain high in Sudan.

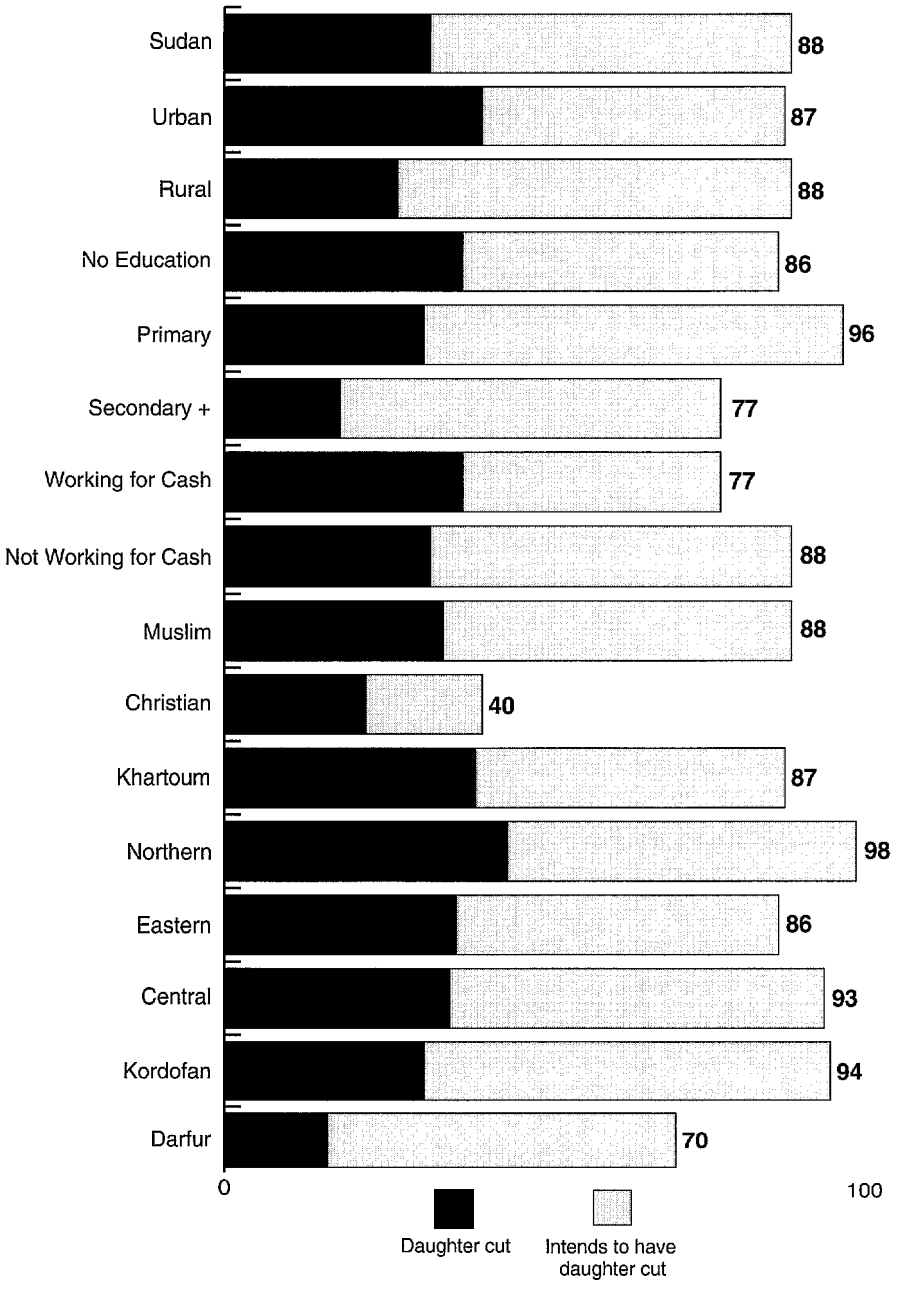
Cutting will probably be least common among the offspring of Christian mothers

Among the mothers surveyed, Christian women are least likely to say that they will maintain the tradition of genital cutting among their daughters. Forty percent of Christian mothers have had or intend to have all daughters cut. The prevalence level, however, among Christian women is 47 percent. This suggests that cutting may not become substantially less prevalent among daughters.

Experiences of daughters whose mothers oppose genital cutting

One way of gauging the strength of genital cutting traditions and the potential for change is to investigate the status of daughters whose mothers oppose these practices. What percent of mothers, despite their personal opposition, have had or intend to have their daughters undergo these procedures? The findings suggest that these traditions can prevail even among the offspring of mothers who say that they disapprove of cutting. Among these women, the daughter's cutting may reflect societal and familial pressures that override the mother's personal judgment. For instance, a mother's appreciation of the adverse effects of cutting may be tempered by a recognition that her daughter's marriageability is at stake if she is left intact. Some mothers, however, may also have changed their minds about these practices after their daughter has been cut.

Percentage of women who have had all or intend to have all daughters cut



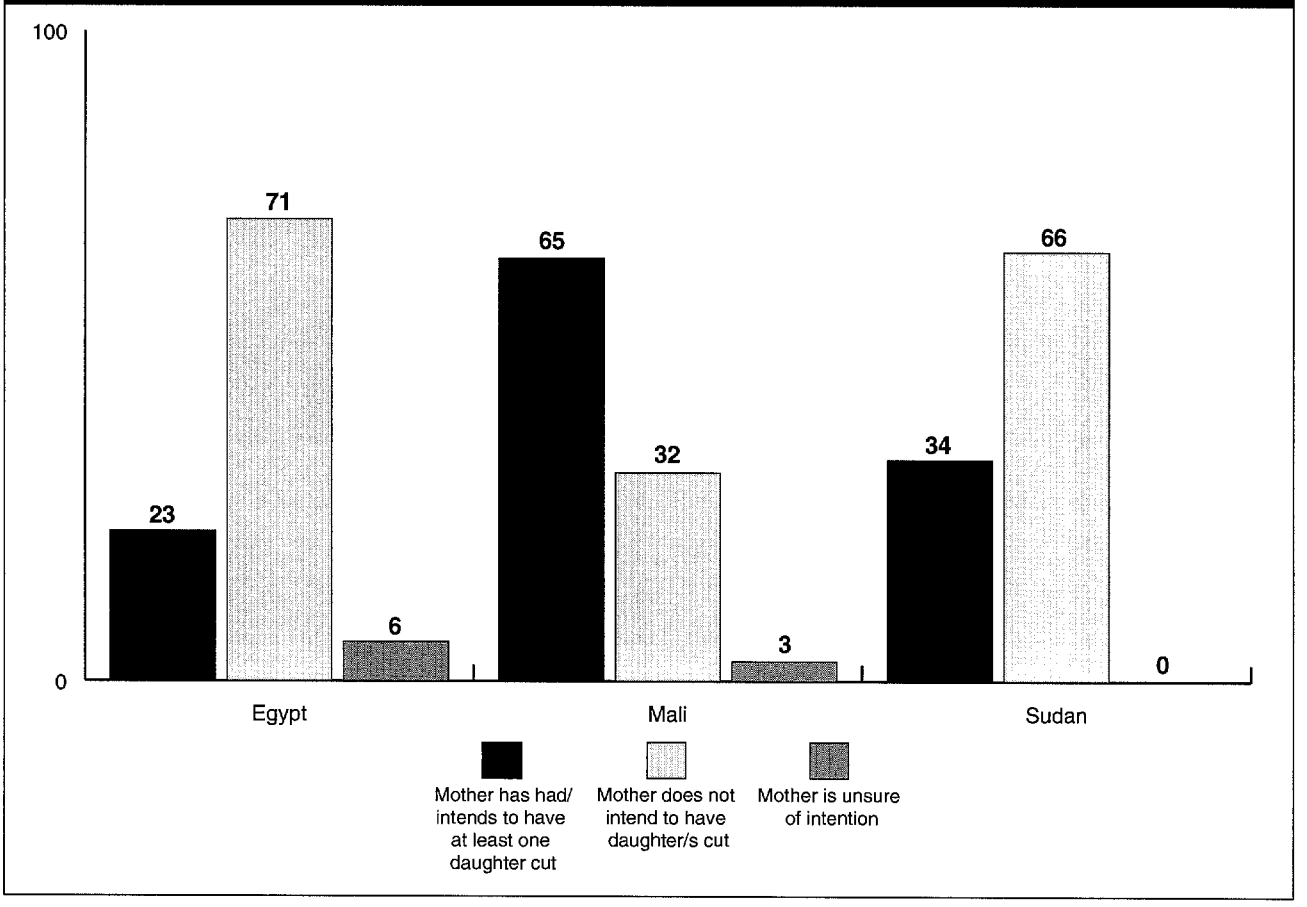
Despite their personal opposition, a number of mothers report that their daughter has undergone cutting

Overall, women who want to see these practices discontinue are substantially less likely to report that their daughters have undergone cutting. Egyptian mothers appear to be most effective in safeguarding their daughters if they personally oppose these practices. Additionally, the majority of Sudanese mothers who oppose cutting do not intend to have their daughters undergo these procedures. Malian mothers seem less able to realize their preferences, with the majority reporting that their eldest daughter has been or will be cut.

According to Egyptian women, the force of tradition is strongest in dictating decisions regarding daughters

To obtain more information about the role that relatives and others may play in the decision to cut daughters, Egyptian women were asked if anyone encouraged their daughter's operation.[2] Most Egyptian mothers say that tradition (43 percent) and/or no one (36 percent) encouraged them to have their daughter cut. Somewhat fewer women mention other sources of influence, including their mother (8 percent), friends and neighbors (7 percent), their husband (6 percent), and their husband's mother (6 percent). Among

Status of daughters whose mothers oppose genital cutting (percent)



[2] Results are based on special tabulations of the DHS data set.

the relatively few (9 percent) Egyptian women who do not intend to have a daughter undergo cutting, the most common reasons given are the mother's personal opposition to these practices, fear of medical complications, and belief that genital cutting is against religion.

Few Malian mothers report that anyone opposed their daughter's operation

Malian mothers were asked if anyone tried to prevent their daughter from undergoing cutting. According to their responses, the intervention of family members or others to oppose a daughter's operation is rare (Coulibaly et al., 1996). Overall, 3 percent of Malian mothers report that anyone opposed their eldest daughter's operation. This finding again confirms that the prevailing social norms in Mali strongly support genital cutting practices. Some women, however, are more likely to have encountered opposition, including mothers from Bamako (11 percent), with at least some secondary-level education (14 percent), and from the cities of Timbuktu and Gao (28 percent).

Program Issues

The potential for change

What is the potential for changing cutting-related attitudes and practices in the countries surveyed? High prevalence levels in many countries, combined with widespread support among women, suggest that genital cutting traditions are tenacious. Some groups, however, may be more open to change than others. This section will discuss respondents who express relatively high levels of support, disapproval, and "dissatisfaction," which is measured in terms of prevalence exceeding support. The objective is to identify those groups who might be most and least receptive to program efforts aimed at eradication. Some discussion will also focus on general program issues, exploring potential barriers to changing cutting practices. Finally, for greater insights about generating change, DHS findings on women's opinions about why these practices continue and how to best abolish genital cutting will be discussed.

Critical mass of opposition and dissatisfaction apparent in Eritrea

Among the high prevalence countries (≥89 percent), only Eritrea appears to have a critical mass of opposition among the adult population that suggests a large-scale openness to change. About four out of 10 Eritreans want to see genital cutting discontinued. Eritrea is also distinguished by one of the largest disparities between prevalence and support, suggesting widespread dissatisfaction with genital cutting. Although 95 percent of Eritrean women undergo these procedures,

Comparison of prevalence and support for genital cutting

Country	Prevalence of genital cutting (%)	Support for continuation of genital cutting (%)	Dissatisfaction: difference between prevalence and support (percentage points)	Opposition to continuation (%)
CAR	43	30	13	56
Egypt	97	82	15	13
Eritrea				
Women	95	57	38	38
Men	na	46	49	42
Mali	94	75	19	13
Sudan	89	79	10	21
Yemen	u	21	u	60
Average difference			24	

na = not applicable
u = unknown; no information

only 57 percent of women and 46 percent of men support these practices. The other countries with prevalence levels around 90 percent all have support levels of at least 75 percent among respondents.

Groups expressing relatively high levels of opposition and dissatisfaction

Higher levels of opposition and dissatisfaction expressed by educated women

In most countries, respondents with at least some secondary-level education are among those least favorably disposed toward genital cutting (see Appendix Table 1). The differences based on education are particularly extreme in Eritrea, where 80 percent of women with at least some secondary-level education oppose cutting, compared to 24 percent of uneducated women. At present, however, educated women in high prevalence countries are not substantially less likely than uneducated women to have undergone cutting. In Egypt, prevalence levels exceed 89 percent among women with every level of educational attainment. The combination of high prevalence and relatively low support suggests widespread dissatisfaction with these practices among the educated. Less favorable attitudes among these women may translate into substantially lower prevalence levels in the future. If highly educated mothers are able to realize their intentions, for instance, cutting may become slightly less prevalent among their daughters.

Urban respondents are among the groups with the highest levels of dissatisfaction

Overall, higher proportions of women are likely to have undergone cutting than support the practice. This suggests that if respondent attitudes prevail, the prevalence of cutting could decline slightly among the youngest generation of girls. The largest differences between prevalence and support for genital cutting tend to occur among women in urban areas, most prominently in Egypt, Eritrea, and Mali (see Appendix Table 1). For instance, 95 percent of women in the capital city region of Bamako in Mali have undergone cutting, but only 65 percent support these practices. In most other parts of Mali, prevalence is 90 percent or higher, and at least 79 percent of women favor continuation. Areas with large disparities between prevalence and support may be particularly amenable to educational and other program interventions aimed at reducing levels of cutting.

Other factors relating to opposition and dissatisfaction

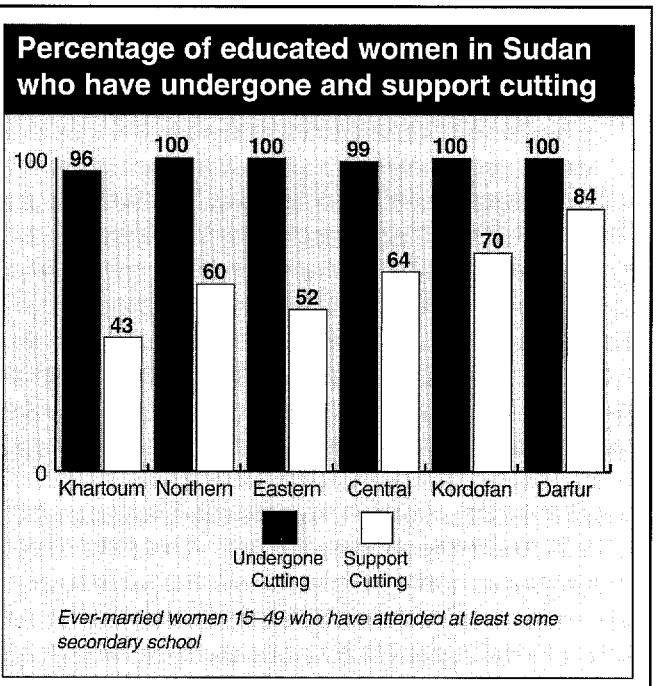
Only CAR and Mali have data on ethnicity in relation to prevalence and attitudes (see Appendix Table 2). In CAR, the Mandjia and Banda groups appear most dissatisfied with genital cutting, exhibiting the largest differences between prevalence and support levels. Mali has less attitudinal variation among ethnic groups, with most groups exhibiting a prevalence level that is 17 to 21 percentage points higher than support levels among women.

Regions with high prevalence or support levels may be more resistant to change

Although slightly more than half of women oppose cutting in CAR, these practices are concentrated in one part of the country, Région Sanitaire IV. In this region, prevalence is 91 percent and support is 77 percent. This region, sharing long borders with Chad and Sudan, may warrant special programmatic attention.

In Côte d'Ivoire, genital cutting practices are concentrated in three regions, the West, North, and North-West. Prevalence levels in these areas are substantially higher than average (43 percent):

Support for genital cutting is strong among educated women in Darfur, Sudan



Overall, educated women are less likely to favor the continuation of genital cutting. This pattern, however, does not hold everywhere. Support, for example, among educated women in Darfur, Sudan, is strong.[1] More than 80 percent of the most highly educated women in Darfur favor the continuation of genital cutting. In contrast, support among the most educated in other regions of Sudan ranges from 43 percent in Khartoum to 70 percent in Kordofan.

Traditionally, many ethnic groups in Darfur, which is in western Sudan, did not practice genital cutting. Overall prevalence in the region (65 percent) is still the lowest in the country. The association of these practices with higher socioeconomic groups, however, may be contributing to the positive reception of cutting among educated women in Darfur. In her fieldwork in Sudan, Gruenbaum observes that the Arab-Sudanese commonly consider western Sudan's ethnic groups "socially inferior," with some regarding infibulation as a sign of "ethnic superiority" (Gruenbaum, 1991). Toubia notes that after Sudan's independence in 1956, the expansion of various government services into the western region by northern elites led to the adoption of genital cutting among some ethnic groups that had not previously performed these procedures (Toubia, 1995).

[1] Much of this information is drawn from research on cutting-related attitudes and behaviors in northern Sudan conducted by Katherine Neitzel. The findings were presented as part of the "Tools and Indicators for Assessing Women's Status," panel, Association for Women in Development conference, Beyond Beijing: From Words to Actions, Washington, D.C. (September 5-8, 1996).

79 percent in the West, 85 percent in the North, and 88 percent in the North-West. Special programmatic attention might be directed to these regions, which abut Liberia, Guinea, Mali, and Burkina Faso.

In Egypt, more than 90 percent of residents of rural Lower Egypt and rural Upper Egypt governorates want to see these practices continue. Only residents of the Sudanese region of Kordofan have a similarly high level (90 percent) of support. In Eritrea, the highest levels of support among women are in Gash-Barka (83 percent), while the highest levels among men are in Anseba (71 percent). Four Malian regions share similarly high levels of support among women, Koulikoro (83 percent), Kayes (82 percent), Sikasso (79 percent), and Mopti (79 percent). Yemen reveals generally less favorable attitudes among women, with the highest support levels found in the South and East (36 percent).

The role of men

At least one researcher has suggested that if men did not demand that their wives be cut, these practices would end immediately (Hosken, 1995). Evidence from the DHS confirming a strong male role in perpetuating these practices is ambiguous.

Egyptian women believe men prefer women who are cut

In Egypt, male-related reasons for cutting appear to be important, contributing to the strength of these traditions among women. For example, many Egyptian women appear to associate cutting with attracting and keeping a husband (El Zanaty et al., 1996). Three out of four Egyptian women agree that husbands prefer women who have been cut. A number of women also believe that cutting assures a faithful wife, with 41 percent agreeing that cutting prevents adultery.

Men do not appear to be barriers to change in Eritrea or Sudan

Most likely, men are not major obstacles to eliminating these practices in Eritrea or northern Sudan. In Eritrea, men are slightly less likely to support continuation of genital cutting than women (see Appendix Table 1). A number of men do not seem to hold strong opinions about these practices, expressing uncertainty as to whether or not they oppose cutting. Eritrean men are also particularly concerned about the health effects of these practices on women, with one-third of men ages 15 to 59 explaining that they oppose cutting because of medical complications.

In Sudan, male support also does not appear to be a major issue (DOS and IRD, 1991). According to married women, nearly half of their husbands are either indifferent toward (33 percent) or oppose (16 percent) these practices. This would suggest that active support among men in Sudan may be less pronounced than female support (79 percent) for genital cutting. Among women who oppose cutting, only 3 percent think that these practices continue because of male preferences.

More investigation of the male role is needed

Overall, the information available about men does not support any simple conclusions about their role in furthering these traditions. More research into male attitudes and participation is warranted. Except for Eritrea, no national-level information on male attitudes is available. The findings from Egypt and northern Sudan rely on the perceptions of women regarding male preferences. The degree to which women's perceptions are consistent with actual male attitudes is unknown. At present, there is no information from men that could validate the accuracy of these perceptions.

Religion

Although often perceived to be a Muslim practice, genital cutting predates Islam in Africa and has no doctrinal support in the Qur'an (Toubia, 1995). Most Islamic scholars also maintain that the "hadith" or sayings of the Prophet Mohammed, another source of Islamic instruction, offers no or only tenuous support for female "circumcision." There is, however, a tradition of interpretation suggesting that some passages of the "hadith" indicate that the Prophet may have considered a minor form of genital cutting advisable or beneficial for Muslims (Aldeeb, 1994). Even still, this would suggest that genital cutting is not a religious requirement for Muslims, but only a "beneficial" practice for the faithful.

Overall, no clear doctrinal mandate for genital cutting has been found in any of the sacred or primary texts of Christianity, Islam, or Judaism (Toubia, 1995).

Prevalence and support levels are generally higher among Muslims than those of other faiths

Despite the lack of doctrinal support in the Qur'an, prevalence and support levels are generally higher among Muslims than women of other faiths. These findings may reflect the strength of a cultural tradition among Muslim women. Alternatively, women may directly associate cutting with religious doctrine. In Egypt, seven out of 10 women agree that genital cutting is a religious tradition (El Zanaty et al., 1996). In many instances, this perception has been corroborated by Egypt's religious leadership. Since the 1950s, numerous fatwas, or edicts, issued by religious leaders in Egypt have maintained that genital cutting is advisable or a duty for believers. Although a fatwa from 1949 indicated that the faithful could forsake genital cutting, edicts issued in 1951, 1981 (Aldeeb, 1994), and 1995 (Aslam, 1996) all suggested that these practices were, at the least, advisable for Muslims.

Custom, tradition, and social norms

Women commonly believe that cutting is an important tradition

When asked why they favor the continuation of genital cutting, most supporters explain that these practices are custom and tradition. For some women, genital cutting practices may not be strongly associated with any particular reason. In Egypt, for instance, women most commonly explain that tradition, rather than any particular person, dictates their decisions to have their daughters undergo cutting. As a result, program efforts may need to address the prevailing attitude among women that cutting practices are important traditions to uphold.

More research is needed on women's cutting-related knowledge and beliefs

In general, DHS data do not provide much information about women's attitudes, misconceptions or deficits in knowledge regarding cutting. The reasons given by respondents for supporting or opposing cutting do not necessarily fully reflect a respondent's knowledge or attitudes. In general, the most common explanations for support or opposition are that these practices are "custom and tradition" or a "good (bad) tradition." These responses are difficult to interpret and may encompass many specific reasons. More research in this area is needed.

Why these practices continue

Sudanese women confirm that a 'fear of social criticism' helps perpetuate genital cutting

In northern Sudan, researchers asked women who oppose genital cutting why these practices continue. According to these women, three top reasons account for the persistence of cutting traditions, including a fear of social criticism (27 percent), an ignorance of consequences (21 percent), and the influence of old women or grandmothers (13 percent) (DOS and IRD, 1991). A number of women give no response, with about 40 percent of rural residents and nearly half of those with no formal education saying that they don't know why these traditions continue. Few women specifically mention parental influence, male preference, or custom.

Established traditions and social norms may explain the gap between a woman's personal opposition and behavior toward daughters

In some countries, families who want to keep their daughters intact face the weight of established traditions and entrenched social norms. These practices are nearly universal in some areas, with widespread support among women. Families may believe or know that they will incur social criticism for dropping practices that are widely embraced. Field research suggests that uncut girls and women can face a number of sanctions: in some areas, uncut girls cannot be christened, milk cows, "serve elders," or easily find a husband (Eliah, 1996; Issayas, 1996).

Active, public opposition in many areas is rare; only 3 percent of Malian mothers report that someone opposed their daughter's operation. DHS findings suggest that mothers who oppose these practices may not always be able to prevent their daughters from undergoing cutting. Some programmatic effort might be directed toward addressing social norms, facilitating the efforts of women and men who oppose these practices to keep their daughters intact.

How to abolish genital cutting

Egyptian and Sudanese women recommend educational campaigns to eradicate cutting

In Egypt and northern Sudan, researchers asked women who oppose genital cutting about the best ways to abolish these practices (El Zanaty et al., 1996; DOS and IRD, 1991). Most Egyptian opponents of cutting (83 percent) endorse educational campaigns directed toward parents as one of the best means for eradicating these procedures. Sudanese respondents most commonly propose (40 percent) educational campaigns for women as one of the best measures. In Sudan, the higher a woman's educational level, the more likely she is to endorse education as one of the best means for abolishing cutting. The majority of rural (53 percent) and uneducated (60 percent) women in Sudan say that they don't know how these practices can be eradicated.

A small, but sizable group of respondents recommend legal recourse, with Sudanese women proposing that laws against the practice be enforced (20 percent) and Egyptian women suggesting that operators be prohibited from performing operations (23 percent). In Egypt, around 12 percent of women recommend sex education as one of the best strategies. Few Sudanese women mention other measures as effective, including the involvement of fathers (4 percent), improvements in women's status (1 percent), or sex education (1 percent).

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Appendix A: Tables

Table 1
Female genital cutting: Prevalence and attitudes by background characteristics

Background characteristic	Prevalence (%)	Percentage who support continuation	Dissatisfaction: difference between prevalence and support (percentage points)	Percentage who oppose continuation	Percentage who don't know/ unsure/missing	Number of respondents
CAR	43	30	13	56	14	5,884
Education						
No education	48	36	12	47	17	3,039
Primary	45	29	16	59	13	2,049
Secondary +	23	11	12	84	5	796
Residence						
Urban	40	26	14	66	8	2,507
Rural	46	34	12	48	18	3,377
Bangui	35	18	17	76	6	1,267
Religion						
Muslim	50	45	5	43	12	522
Christian	43	29	14	57	14	5,270
Traditional/Other	42	32	10	43	25	92
Age of respondent						
15-19	35	28	7	56	16	1,288
20-24	43	31	12	57	13	1,125
25-29	44	30	14	55	14	1,032
30-34	44	31	13	57	13	849
35-39	48	30	18	56	13	706
40-44	51	31	20	56	13	458
45-49	53	36	17	49	15	426
Health region						
Région sanitaire I	56	34	22	48	19	1,249
Région sanitaire II	14	18	- 4	67	16	967
Région sanitaire III	28	17	11	61	22	1,072
Région sanitaire IV	91	77	14	22	1	650
Région sanitaire V	57	40	17	43	17	680
CÔTE d'IVOIRE	43	na	na	na	na	8,099
Education						
No education	55	na	na	na	na	4,894
Primary	25	na	na	na	na	2,071
Secondary +	23	na	na	na	na	1,134
Residence						
Urban	40	na	na	na	na	3,410
Rural	45	na	na	na	na	4,689
Abidjan	31	na	na	na	na	1,796
Religion						
Muslim	80	na	na	na	na	2,639
Christian	16	na	na	na	na	3,445
Traditional	39	na	na	na	na	2,015

Table 1 continued

Background characteristic	Prevalence (%)	Percentage who support continuation	Dissatisfaction: difference between prevalence and support (percentage points)	Percentage who oppose continuation	Percentage who don't know/ unsure/missing	Number of respondents
Côte d'Ivoire continued						
Age of Respondent						
15-19	35	na	na	na	na	1,961
20-24	42	na	na	na	na	1,571
25-29	48	na	na	na	na	1,454
30-34	47	na	na	na	na	1,189
35-39	44	na	na	na	na	806
40-44	45	na	na	na	na	621
45-49	44	na	na	na	na	496
Region						
Central	23	na	na	na	na	580
North-Central	44	na	na	na	na	556
North-East	26	na	na	na	na	354
East-Central	39	na	na	na	na	323
South	30	na	na	na	na	2,997
South-West	52	na	na	na	na	470
West-Central	33	na	na	na	na	1,192
West	79	na	na	na	na	787
North-West	88	na	na	na	na	372
North	85	na	na	na	na	467
EGYPT	97	82	15	13	6	14,779
Education						
No education	100	93	6	3	4	6,464
Primary	100	87	13	7	6	3,667
Secondary +	91	61	30	31	7	4,648
Residence						
Urban	94	70	24	22	8	6,809
Rural	100	91	9	5	4	7,970
Religion						
Muslim	98	83	15	11	5	13,981
Christian	88	50	38	39	11	795
Age of respondent						
15-19	98	85	13	6	9	673
20-24	98	84	14	11	5	2,136
25-29	97	82	15	13	5	2,749
30-34	96	79	17	14	6	2,605
35-39	97	81	16	12	6	2,573
40-44	97	81	16	14	5	2,059
45-49	97	82	15	13	5	1,984

Table 1 continued

Background characteristic	Prevalence (%)	Percentage who support continuation	Dissatisfaction: difference between prevalence and support (percentage points)	Percentage who oppose continuation	Percentage who don't know/ unsure/missing	Number of respondents
Egypt continued						
Place of residence						
Urban Governorates	93	66	27	25	8	3,312
Lower Egypt	99	87	12	9	4	6,207
Urban	97	75	22	19	6	1,830
Rural	100	92	8	5	3	4,377
Upper Egypt	98	86	12	9	6	5,125
Urban	94	73	21	19	8	1,583
Rural	100	91	9	4	5	3,543
Frontier Governorates	75	61	14	33	6	135
ERITREA						
Women	95	57	38	38	5	5,054
Men	na	46	49	42	13	1,114
Education						
No education						
Women	95	71	24	24	5	3,332
Men	na	69	26	18	13	520
Primary						
Women	93	34	59	61	5	1,221
Men	na	32	61	54	14	379
Secondary +						
Women	92	18	74	80	2	501
Men	na	13	79	77	10	215
Residence						
Urban						
Women	93	36	57	60	4	1,648
Men	na	28	65	63	9	356
Rural						
Women	95	67	28	28	5	3,406
Men	na	54	41	32	15	758
Religion						
Muslim						
Women	99	77	22	18	5	1,893
Men	na	71	28	21	8	433
Christian						
Women	92	44	48	51	5	3,133
Men	na	30	62	55	16	680

Table 1 continued

Background characteristic	Prevalence (%)	Percentage who support continuation	Dissatisfaction: difference between prevalence and support (percentage points)	Percentage who oppose continuation	Percentage who don't know/ unsure/missing	Number of respondents
Eritrea continued						
Age of respondent						
15-19						
Women	90	41	49	51	8	1,129
Men	na	24	66	49	27	237
20-24						
Women	94	49	45	47	4	823
Men	na	30	64	56	14	142
25-29						
Women	95	59	36	38	3	782
Men	na	48	47	46	6	127
30-34						
Women	96	61	35	35	4	638
Men	na	44	52	44	12	102
35-39						
Women	97	68	29	29	3	562
Men	na	53	44	44	3	125
40-44						
Women	96	67	29	27	6	603
Men	na	63	33	32	5	117
45-49						
Women	97	71	26	26	3	518
Men	na	55	42	32	13	113
50-54						
Women	na	na	na	na	na	na
Men	na	73	na	19	7	77
55-59						
Women	na	na	na	na	na	na
Men	na	60	na	27	13	73
Zone						
Southern Red Sea						
Women	97	76	21	20	4	139
Men	na	61	36	20	19	39
Northern Red Sea						
Women	99	71	28	23	6	556
Men	na	57	42	33	9	110
Anseba						
Women	99	61	38	31	8	642
Men	na	71	28	26	3	133
Gash-Barka						
Women	98	83	15	15	2	957
Men	na	69	29	17	14	233

Table 1 continued

Background characteristic	Prevalence (%)	Percentage who support continuation	Dissatisfaction: difference between prevalence and support (percentage points)	Percentage who oppose continuation	Percentage who don't know/ unsure/missing	Number of respondents
Eritrea continued						
Zone continued						
Southern						
Women	90	53	37	42	5	1,392
Men	na	32	58	46	22	286
Central						
Women	92	33	59	63	5	1,368
Men	na	24	68	68	9	312
MALI	94	75	19	13	12	9,704
Education						
No education	94	78	16	9	13	7,867
Primary	94	76	18	17	7	1,152
Secondary +	90	48	42	47	5	685
Residence						
Urban	90	65	25	24	11	3,074
Rural	96	80	16	8	12	6,630
Bamako	95	65	30	28	7	1,355
Religion						
Muslim	94	76	18	13	11	8,794
Christian	85	51	34	27	22	290
Traditional	90	72	18	4	24	620
Age of respondent						
15-19	93	70	23	13	17	1,883
20-24	94	76	18	13	12	1,594
25-29	94	78	16	12	10	1,693
30-34	95	77	18	14	10	1,521
35-39	94	77	17	13	10	1,359
40-44	94	75	19	13	12	895
45-49	92	75	17	11	14	758
Region						
Kayes	99	82	17	7	11	1,479
Koulikoro	99	83	16	9	8	1,579
Sikasso	97	79	18	9	12	1,839
Ségou	94	70	24	10	20	1,690
Mopti	88	79	9	13	8	1,588
Timbuktu/Gao	9	6	3	38	56	175
SUDAN	89	79	10	21	0	5,860
Education						
No education	83	82	1	18	0	3,425
Primary	98	84	14	16	0	1,543
Secondary +	98	55	43	45	0	892

Table 1 continued

Background characteristic	Prevalence (%)	Percentage who support continuation	Dissatisfaction: difference between prevalence and support (percentage points)	Percentage who oppose continuation	Percentage who don't know/ unsure/missing	Number of respondents
Sudan continued						
Residence						
Urban	93	72	21	28	0	2,181
Rural	87	82	5	18	0	3,679
Religion						
Muslim	90	79	11	21	0	5,745
Christian	47	42	5	58	0	111
Age of respondent						
15-19	87	77	10	23	0	380
20-24	90	74	16	26	0	938
25-29	89	77	12	23	0	1,355
30-34	90	79	11	21	0	970
35-39	89	81	8	19	0	1,047
40-44	89	82	7	18	0	630
45-49	91	81	10	19	0	540
Region						
Khartoum	96	68	28	32	0	1,249
Northern	99	82	17	18	0	394
Eastern	87	80	7	20	0	667
Central	95	86	9	14	0	1,599
Kordofan	96	90	6	10	0	908
Darfur	65	67	- 2	33	0	1,043
YEMEN	na	21	na	60	19	5,687
Education						
No education	na	20	na	60	20	5,067
Primary	na	20	na	70	10	385
Secondary +	na	32	na	63	5	235
Residence						
Urban	na	26	na	68	7	1,054
Rural	na	20	na	59	21	4,633
Age of respondent						
15-19	na	22	na	59	19	427
20-24	na	20	na	65	15	815
25-29	na	21	na	60	19	1,295
30-34	na	21	na	60	19	995
35-39	na	20	na	61	19	972
40-44	na	22	na	57	21	653
45-49	na	21	na	59	20	529
Region						
North & West	na	18	na	60	22	4,708
South & East	na	36	na	60	4	979

na = not applicable

Source: Special tabulations of the survey data files. (CAR) Ndamobissi et al., 1995; (Côte d'Ivoire) Sombo et al., 1995; (Egypt) El-Zanaty et al., 1996; (Eritrea) National Statistics Office and Macro International, 1997; (Mali) Coulibaly et al., 1996; (Northern Sudan) DOS and IRD, 1991; (Yemen) Central Statistical Organization et al., 1994. Special tabulations prepared for National Safe Motherhood Sensitization and Strategy Development Workshop (Ministry of Health; Asmara, Eritrea; October 21-23, 1996).

Table 2
Prevalence and attitudes, by ethnicity

Ethnic groups are listed in descending order from the largest to the smallest, based on size in relation to the survey population.

Ethnic Group	Prevalence (%)	Percentage who support continuation	Dissatisfaction: difference between prevalence and support (percentage points)	Percentage who oppose continuation	Percentage who don't know/ unsure/missing	Number of respondents
CAR	43	30	13	56	14	5,884
Gbaya	32	22	10	61	17	1,743
Banda	84	59	25	36	5	1,468
Mandjia	71	35	36	60	5	581
Ngbaka-Bantou	6	5	1	66	29	453
Mboum	3	7	- 4	70	23	405
Sara	36	31	5	55	14	342
Yakoma-Sango	3	2	1	83	15	319
Haoussa	42	39	3	46	15	283
Zandé-Nzakara	4	5	- 1	64	32	165
ERITREA[1]						
Women	95	57	38	38	5	5,054
Men	na	46	na	42	13	1,114
Tigrigna	92	na	na	na	na	3,113
Tigre	99	na	na	na	na	1,060
Saho	96	na	na	na	na	241
Nara	100	na	na	na	na	138
Bilen	99	na	na	na	na	130
Afar	99	na	na	na	na	126
Hedarib	100	na	na	na	na	118
Kunama	98	na	na	na	na	62
MALI	94	75	19	13	12	9,704
Bambara	99	82	17	9	9	2,814
Peulh	98	80	18	10	10	1,404
Sarakolé/Soninké	99	82	17	9	9	1,228
Sénoufo/Minianka	96	75	21	10	15	859
Dogon	84	75	9	17	8	856
Malinké	99	74	25	16	11	741
Sonraï	48	36	12	40	24	319
Tamacheck	17	14	3	34	52	76

na = not available

[1] Two ethnic groups (Rashaida, Ethiopia) have been excluded because of small sample size.

Source: Special tabulations of the survey data files; special tabulations prepared for National Safe Motherhood Sensitization and Strategy Development Workshop (Ministry of Health; Asmara, Eritrea; October 21-23, 1996).

Table 3
Age at cutting among Eritrean women 15–49 by background characteristics (percent distribution)

Background characteristic	Age at which women were cut: During infancy (before age 1)	1-4 years	5+ years	Don't know/ missing	Number of women
ERITREA	44	16	12	28	4,775
Education					
No education	35	21	16	28	3,177
Primary incomplete	55	8	6	32	734
Primary complete	65	5	4	27	404
Secondary +	72	3	2	23	460
Residence					
Urban	65	6	4	25	1,530
Rural	34	21	16	29	3,245
Religion					
Muslim	18	36	28	18	1,878
Christian	61	3	1	35	2,871
Ethnic Group					
Tigrigna	62	2	1	35	2,876
Tigre	9	42	37	13	1,054
Saho	48	2	1	49	231
Nara	0	28	60	12	138
Bilen	33	33	24	10	129
Afar	36	28	1	36	125
Hedarib	0	81	17	2	118
Kunama	7	44	46	3	61

Source: (Eritrea) National Statistics Office and Macro International, 1997; Special tabulations prepared for National Safe Motherhood Sensitization and Strategy Development Workshop (Ministry of Health; Asmara, Eritrea; October 21-23, 1996).

Table 4
Median age at cutting in Mali by selected background characteristics

Background characteristic	Median age among women (years)	Number of women	Median age among eldest daughters (years)	Number of eldest daughters
MALI	6.3	9,097	2.1	4,712
Education				
No education	6.7	7,398	2.5	3,955
Primary	5.5	1,083	0.8	514
Secondary +	0.9	615	0.7	243
Residence				
Urban	4.1	2,759	0.7	1,319
Rural	6.9	6,337	3.0	3,393
Religion				
Muslim	6.0	8,291	1.8	4,381
Christian	7.5	246	3.5	100
Animist	8.5	416	4.7	195
Other	11.0	144	(6.0)	(n<40)
Age of Respondent				
15-19	4.3	1,742	0.6	104
20-24	5.3	1,502	0.8	459
25-29	5.9	1,591	1.0	824
30-34	6.7	1,442	2.5	997
35-39	7.8	1,276	2.6	999
40-44	8.5	843	3.3	735
45-49	8.8	700	4.3	595
Region				
Kayes	0.9	1,457	0.6	873
Koulikoro	5.7	1,567	2.6	863
Sikasso	10.2	1,776	5.3	813
Ségou	8.1	1,587	3.3	880
Mopti	5.9	1,402	3.2	708
Timbuktu/Gao	*	*	*	*
Bamako	1.0	1,291	0.7	570
Ethnic Group				
Bambara	7.7	2,784	4.1	1,360
Peulh	5.6	1,382	1.3	721
Sarakolé/Soninké	0.9	1,212	0.7	718
Sénoufo/Minianka	10.2	821	3.7	376
Dogon	4.8	719	3.2	404
Malinké	5.1	733	0.9	389
Sonraï	6.0	152	1.0	69
Tamacheck	*	*	*	*
Other	7.0	1,281	1.2	669

* Fewer than 25 cases

Source: (Mali) Coulibaly et al., 1996; Special tabulations of the survey data file.

Table 5
Reasons given for supporting the continuation of genital cutting (percent)

Supporters/ all respondents	Good tradition	Custom and tradition	Preserve virginity/ prevent adultery	Cleanliness	Religion	Marriage/ Husband's pleasure or preference	Number of respondents
CAR/supporters	26	70	13	1	<1	17	1,778
CAR/all women	8	21	4	<1	<1	5	5,884
Egypt/supporters	58	na	15	36	31	13	12,054
Egypt/all women	48	na	12	29	25	10	14,779
Eritrea/supporters							
Women	53	69	15	15	12	6	2,869
Men	28	58	32	14	16	7	508
Eritrea/all respondents							
Women	30	39	8	9	7	3	5,054
Men	13	27	15	6	7	3	1,114
Mali/supporters	28	61	5	6	13	4	7,310
Mali/all women	21	46	4	5	10	3	9,704
Sudan/supporters	19	68	7	8	14	7	4,602
Sudan/all women	15	54	6	6	11	5	5,860
Yemen/supporters	na	34[a]	na	na	57	<1	1,186
Yemen/all women	na	7	na	na	12	<1	5,687

Note: "All women" or "All women and men" figures in the table refer to the proportion who support continuation among the population surveyed. This includes all women age 15-49 in CAR, Eritrea, and Mali. This figure covers all ever-married women age 15-49 in Egypt, northern Sudan, and Yemen. In Eritrea, the figure also includes all Eritrean men age 15-59. Percentages do not add to 100 because multiple responses were accepted.

na = not applicable.

[a] In Yemen, these are women who said they approved of FGC because it is the "normal practice here."

Source: (CAR) Ndamobissi et al., 1995; (Egypt) El-Zanaty, et al., 1996; (Eritrea) National Statistics Office and Macro International Inc.; (Mali) Coulibaly et al., 1996; (Northern Sudan) Department of Statistics and Institute for Resource Development/Macro International Inc., 1991. Special tabulations of the survey data files.

Table 6
Reasons given for opposing the continuation of genital cutting (percent)

Opposers/ all respondents	Bad tradition	Medical complications/health	Against religion	Painful personal experience	Against women's dignity	Prevents sexual satisfaction	Number of respondents
CAR/opposers	50	13	42	4	8	3	3,285
CAR/all women	28	7	23	2	4	2	5,884
Egypt/opposers	38	46	30	27	12	20	1,882
Egypt/all women	5	6	4	3	2	3	14,779
Eritrea/opposers							
Women	72	37	2	24	14	11	1,940
Men	51	76	4	23	5	28	462
Eritrea/all respondents							
Women	28	14	1	9	5	4	5,054
Men	21	32	2	10	2	12	1,114
Mali/opposers	30	45	4	13	5	14	1,234
Mali/all women	4	6	1	2	1	2	9,704
Sudan/opposers	29[a]	50	12	29	2	6	1,256
Sudan/all women	6	11	3	6	<1	1	5,860
Yemen/opposers[b]	na	52[c]	na	na	na	2	3,436
Yemen/all women	na	32	na	na	na	1	5,687

Note: "All women" or "all respondents" figures refer to the proportion who oppose continuation among the population surveyed. This includes all women age 15-49 in CAR, Eritrea, and Mali. This figure covers all ever-married women age 15-49 in Egypt, northern Sudan, and Yemen. In Eritrea, the figure also includes all Eritrean men age 15-59. Percentages do not add to 100 because multiple responses were accepted.

na = not applicable

[a] In Sudan, the reason given was, "not Sudanese custom."
[b] In Yemen, basically only two reasons women gave were tabulated. The remaining responses were classified as "other."
[c] In Yemen, the reason given was, "not good for the girl."

Source: (CAR) Ndamobissi et al., 1995; (Egypt) El-Zanaty, et al., 1996; (Eritrea) National Statistics Office and Macro International Inc.; (Mali) Coulibaly et al., 1996; (Northern Sudan) Department of Statistics and Institute for Resource Development/Macro International Inc., 1991. Special tabulations of the survey data files.

Table 7
Prevalence of infibulation among Eritrean and Sudanese women by background characteristics

Background characteristic	Percentage who have undergone cutting	Number of women	Percentage of women who have undergone cutting who have been infibulated	Number of women who have been cut
ERITREA	95	5,054	34	4,775
Education				
No education	95	3,332	46	3,177
Primary	93	1,221	12	1,138
Secondary +	92	501	4	460
Residence				
Urban	93	1,648	13	1,530
Rural	95	3,406	44	3,245
Religion				
Muslim	99	1,893	82	1,878
Christian	92	3,132	2	2,871
Age of respondent				
15-19	90	1,129	25	1,020
20-24	94	823	32	777
25-29	95	782	41	743
30-34	96	638	43	610
35-39	97	562	37	545
40-44	96	603	36	578
45-49	97	518	29	503
Zone				
Southern Red Sea	97	139	61	135
Northern Red Sea	99	556	69	551
Anseba	99	642	74	637
Gash-Barka	98	957	69	942
Southern	90	1,392	<1	1,253
Central	92	1,368	3	1,258
Ethnic Group				
Tigrigna	92	3,133	1	2,876
Tigre	99	1,060	95	1,054
Saho	96	241	41	231
Nara	100	138	99	138
Bilen	99	130	94	129
Afar	99	126	92	125
Hedarib	100	118	100	118
Kunama	98	62	31	61

Table 7 continued

Background characteristic	Percentage who have undergone cutting	Number of women	Percentage of women who have undergone cutting who have been infibulated	Number of women who have been cut
SUDAN	89	5,860	85	5,226
Education				
No education	83	3,425	83	2,839
Primary	98	1,543	89	1,515
Secondary +	98	892	86	872
Residence				
Urban	93	2,181	86	2,028
Rural	87	3,679	85	3,198
Religion				
Muslim	90	5,745	86	5,170
Christian	47	111	54	52
Age of respondent				
15-19	87	380	78	330
20-24	90	938	81	841
25-29	89	1,355	84	1,201
30-34	90	970	87	870
35-39	89	1,047	88	932
40-44	89	630	87	561
45-49	91	540	91	491
Region				
Khartoum	96	1,249	89	1,200
Northern	99	394	99	389
Eastern	87	667	75	577
Central	95	1,599	87	1,512
Kordofan	96	908	85	867
Darfur	65	1,043	75	681

Source: (Eritrea) National Statistics Office and Macro International Inc., 1995; (Northern Sudan) DOS and IRD, 1991. Special tabulations of the survey data files. Special tabulations prepared for National Safe Motherhood Sensitization and Strategy Development Workshop (Ministry of Health; Asmara, Eritrea; October 21-23, 1996).

Table 8
Cutting-related problems experienced by women in CAR

Background characteristic	Percentage who reported problems	Problems associated with cutting					Number of women with cutting-related problems
		Hemorrhage	Pain	Fever	Difficulty urinating	Infection	
CAR	27	64	41	21	6	6	677
Education							
No education	26	59	46	20	7	5	381
Primary	28	70	35	20	4	6	254
Secondary+	23	80	22	30	8	6	41
Residence							
Bangui	21	67	23	37	9	5	93
Urban	21	71	28	29	5	5	208
Rural	30	61	47	17	6	6	469

Note: Percentages do not add to 100 because multiple responses were accepted.
Source: Ndamobissi et al., 1995.

Table 9
Cutting-related problems experienced by women in Eritrea

Background characteristic	Percent who experienced any problem	Type of problem: During sex	Type of problem: During delivery[1]	Type of problem: During sex and delivery	Number of women with cutting-related problems
ERITREA	19	12	17	9	3,878
Type of genital cutting					
Clitoridectomy[2]	6	3	5	2	2,240
Excision	44	31	40	24	190
Infibulation	38	25	33	18	1,444
Education					
No education	22	14	18	10	2,979
Primary incomplete	12	7	11	4	545
Primary complete	10	4	7	1	174
Secondary+	15	6	15	5	181
Religion					
Muslim	36	24	32	18	1,652
Christian	6	3	5	2	2,200

[1] "During delivery" and "During sex and delivery" columns are based on women who have had a birth.
[2] Since type was not defined in the survey, these figures reflect the respondent's own judgment of the type of cutting she underwent. It is generally understood that clitoridectomy is the least invasive, excision the next most invasive, and infibulation the most extreme type of cutting.

Source: National Statistics Office [Eritrea] and Macro International Inc., 1997. Special tabulations prepared for National Safe Motherhood Sensitization and Strategy Development Workshop (Ministry of Health; Asmara, Eritrea; October 21-23, 1996).

Table 10
Treatment received by Eritrean women who experienced cutting-related problems (percent)

Background characteristic	No treatment	Health institution	Traditional healer	Number of women
ERITREA	75	16	10	754
Type of genital cutting				
Clitoridectomy	41	56	3	123
Excision	67	13	20	84
Infibulation	84	7	10	547
Education				
No education	81	9	10	644
Primary incomplete	51	44	5	67
Primary complete	*	*	*	*
Secondary+	*	*	*	*
Religion				
Muslim	81	8	11	598
Christian	46	50	4	137
Type of problem reported				
Sexual only	92	6	3	183
Delivery only	62	27	11	276
Sexual and Delivery	77	11	12	295

*Fewer than 30 cases.

Source: National Statistics Office [Eritrea] and Macro International Inc., 1997. Special tabulations prepared for National Safe Motherhood Sensitization and Strategy Development Workshop (Ministry of Health; Asmara, Eritrea; October 21-23, 1996).

Table 11
Status of daughters in Egypt by background characteristics of mother (percent)

Background characteristic	At least one daughter is cut	Mother intends to have a daughter cut	Total who have cut or intend to cut daughter	Mother does not intend to have daughter cut	Mother is unsure of intention	Number of women
Ever-married mothers age 15–49	50	38	87	9	4	10,847
Education						
No education	60	38	98	1	1	5,055
Some primary	59	37	95	3	2	2,277
Primary through secondary	49	36	85	10	4	1,297
Completed secondary/higher	18	39	57	34	9	2,218
Work status						
Working for cash	40	31	70	24	6	1,709
Not working for cash	52	39	91	7	3	9,137
Religion						
Muslim	50	38	89	8	3	10,296
Christian	38	23	61	30	9	549
Residence						
Urban	46	31	77	18	5	4,970
Rural	53	43	96	2	2	5,877
Place of residence						
Urban Governorates	45	29	73	22	5	2,397
Lower Egypt	52	40	92	6	3	4,619
Urban	49	32	81	15	4	1,347
Rural	53	43	96	2	3	3,273
Upper Egypt	51	41	92	5	3	3,731
Urban	46	35	81	14	5	1,165
Rural	53	44	97	1	2	2,567
Frontier Governorates	40	27	67	30	3	100
Age of respondent						
15-19	1	93	94	4	3	150
20-24	3	87	89	5	5	1,078
25-29	11	73	85	9	6	1,901
30-34	39	45	84	11	5	2,031
35-39	65	22	88	9	3	2,145
40-44	79	10	89	10	1	1,799
45-49	88	2	90	9	1	1,742

Note: Figures have been rounded and may not total 100 percent.
Source: El-Zanaty et al., 1996. Special tabulations of the data file.

Table 12
Status of eldest daughters (age eight and older) in Eritrea by background characteristics of mother

Background characteristic	Eldest daughter is cut (%)	Number of daughters
Mothers with daughters age 8 or older	87	1,650
Education		
No education	89	1,374
Some primary	83	182
Primary complete	72	52
Secondary/higher	81	43
Religion		
Muslim	96	613
Christian	83	1,021
Residence		
Urban	86	463
Rural	88	1,187
Ethnic group		
Afar	98	43
Bilen	97	47
Hedarib	94	39
Kunama	*	*
Nara	95	51
Rashaida	*	*
Saho	92	89
Tigre	95	323
Tigrigna	83	1,024

*Fewer than 25 cases

Source: (Eritrea) National Statistics Office and Macro International Inc., 1997. Special tabulations prepared for National Safe Motherhood Sensitization and Strategy Development Workshop (Ministry of Health; Asmara, Eritrea; October 21-23, 1996).

Table 13
Status of eldest daughters in Mali by background characteristics of mother (percent)

Background characteristic	Eldest daughter has undergone cutting	Intends to have eldest cut	Total who have cut or intend to cut daughter	Does not intend for daughter to be cut	Mother is unsure of intention	Number of women
Mothers age 15–49	74	19	92	6	1	6,399
Education						
No education	74	19	93	6	1	5,376
Primary	74	19	93	6	1	699
Secondary +	75	7	82	17	2	324
Residence						
Urban	75	11	86	12	1	1,750
Rural	73	22	95	4	1	4,648
Religion						
Muslim	75	18	93	6	1	5,807
Christian	55	23	78	17	5	182
Animist	61	25	86	9	5	320
Other religion	40	56	96	4	0	90
Region						
Kayes	92	7	98	1	0	952
Koulikoro	79	19	98	1	1	1,094
Sikasso	63	32	95	4	2	1,297
Ségou	75	18	92	5	3	1,182
Mopti	68	20	88	11	1	1,043
Timbuktu/Gao	5	1	6	92	3	100
Bamako	78	11	89	9	2	730
Ethnicity						
Bambara	71	25	97	2	1	1,905
Peulh	79	17	96	4	1	913
Sarakolé/Soninké	90	8	98	2	0	794
Sénoufo/Minianka	64	31	95	3	2	588
Dogon	69	15	84	15	1	587
Malinké	85	10	96	3	1	455
Sonraï	38	9	47	49	4	182
Tamacheck	14	1	15	84	2	47
Mother's age						
15-19	36	55	91	6	4	289
20-24	50	42	92	6	3	916
25-29	65	27	92	7	2	1,270
30-34	78	15	92	7	1	1,280
35-39	85	8	93	6	1	1,177
40-44	91	2	94	6	1	806
45-49	90	2	92	8	1	661

Note: Figures have been rounded and may not total 100 percent.
Source: Coulibaly et al., 1996.

Table 14
Status of all daughters in northern Sudan by background characteristics of mother (percent)

Background characteristic	All daughters have undergone cutting	Intends to have all daughters undergo cutting	Total who have cut or intend to cut daughters	Does not intend for daughter to be cut	Number of women
Ever-married mothers age 15–49	32	56	88	12	4,386
Education					
No education	36	50	86	14	2,762
Primary	30	67	96	4	1,139
Secondary +	17	60	77	23	485
Residence					
Urban	38	49	87	13	1,613
Rural	28	59	88	12	2,773
Working status					
Working for cash	36	41	77	22	340
Not working for cash	32	57	88	11	4,042
Religion					
Muslim	32	56	88	11	4,306
Christian	23	17	40	60	77
Region					
Khartoum	39	48	87	13	879
Northern	45	53	98	2	289
Eastern	36	51	86	14	476
Central	35	59	93	6	1,210
Kordofan	30	64	94	5	724
Darfur	15	55	70	29	808
Mother's age					
15-19	3	84	87	12	112
20-24	7	76	83	16	505
25-29	16	70	86	14	958
30-34	24	63	87	13	807
35-39	38	51	89	11	936
40-44	55	35	89	11	566
45-49	70	22	91	8	502

Source: Special tabulations of the survey data file.

Table 15
Experiences of daughters whose mothers oppose cutting (percent)

	Egypt	Mali	Sudan
Among women opposed to genital cutting, the percent who:			
Have had or intend to have all daughters cut			22 (had); 12 (intends)
Have had or intend to have at least one daughter cut	17 (had); 6 (intends)		
Have had or intend to have eldest daughter cut		59 (had); 6 (intends)	
Do not intend to cut daughter/s	71	32	66
Are unsure about their intentions	6	3	
Number of women	1,277	747	806

Source: Special tabulations of the survey data files.

Table 16
Background characteristics of respondents interviewed

Background characteristic	CAR	Côte d'Ivoire	Egypt	Eritrea	Mali	Sudan	Yemen
Age group (%)							
15-19							
Women	22	24	5	22	19	7	8
Men	na	na	na	21	na	na	na
20-24							
Women	19	19	15	16	16	16	14
Men	na	na	na	13	na	na	na
25-29							
Women	18	18	19	16	18	23	23
Men	na	na	na	11	na	na	na
30-34							
Women	14	15	18	13	16	17	18
Men	na	na	na	9	na	na	na
35-39							
Women	12	10	17	11	14	18	17
Men	na	na	na	11	na	na	na
40-44							
Women	8	8	14	12	9	11	12
Men	na	na	na	11	na	na	na
45-49							
Women	7	6	13	10	8	9	9
Men	na	na	na	10	na	na	na
Residence (%)							
Urban							
Women	43	42	46	33	32	37	19
Men	na	na	na	32	na	na	na
Rural							
Women	57	58	54	67	68	63	82
Men	na	na	na	68	na	na	na
Education (%)							
No education							
Women	52	60	44	66	81	58	89
Men	na	na	na	47	na	na	na
Primary							
Women	35	26	25	24	12	26	7
Men	na	na	na	34	na	na	na
Secondary+							
Women	14	14	31	10	7	15	4
Men	na	na	na	19	na	na	na

Table 16 continued

Background characteristic	CAR	Côte d'Ivoire	Egypt	Eritrea	Mali	Sudan	Yemen
Religion (%)							
Muslim							
Women	9	33	95	38	91	98	na
Men	na	na	na	39	na	na	na
Christian							
Women	90	43	5	62	3	2	na
Men	na	na	na	61	na	na	na
Traditional/other							
Women	2	25	*	1	4	<1	na
Men	na	na	na	<1	na	na	na
Marriage/childbearing							
Total fertility rate[a]	5.1	5.7	3.6	6.1	6.7	4.6	7.7
Percent married by age 18 (women 25 to 29)	56	48	34	56[b]	72	36	65
Percent who have had a child by age 18 (women 25 to 29)	36	43	19	21	42	24	32
Number of respondents							
Women	5,884	8,099	14,779	5,054	9,704	5,860	5,687
Men				1,114			
Child survival							
Infant mortality rate (deaths by age one per 1000 live births; 5-year rate)	97	89	63	72	123	70	83
Under-five mortality rate (deaths by age five per 1000 live births; 5-year rate)	157	150	81	136	238	123	122

Note: Figures in the table have been rounded.

*Fewer than 20 cases

na = not applicable

[a] The average number of children a woman will bear in her lifetime if current age-specific fertility rates remain constant. Three-year rates for women age 15-49 except for Côte d'Ivoire (5-year rate).
[b] Median age at first marriage for men 25-59 is 25 years. The median age at first marriage for women 25-49 is 16.7 years.

Sources: (CAR) Ndamobissi et al., 1995; (Côte d'Ivoire) Sombo et al., 1995; (Egypt) El-Zanaty et al., 1996; (Eritrea) National Statistics Office and Macro International, 1997; (Mali) Coulibaly et al., 1996; (Northern Sudan) DOS and IRD, 1991; (Yemen) Central Statistical Organization et al., 1994.

Appendix B:

Summary of Information Collected on Female Genital Cutting (FGC) Demographic and Health Surveys, 1989-1996

Category of Question	Central African Republic 1994/95	Côte d'Ivoire 1994	Egypt 1995	Eritrea 1995	Mali 1995/96	Sudan 1989/90	Yemen 1991/92
Procedural							
FGC status	X	X	X	X	X	X	
Age at operation	X	X	X	X	X		
Type			X	X	X	X	
Practitioner		X	X	X	X	X	
Facility			X				
Instrument/s used			X				
Anesthetic used			X				
Health Effects							
Health complications	X		X				
Problems with:							
Sexual relations				X			
Delivery				X			
Health care received			X	X			
Type of health care received			X				
Daughter/s							
FGC status			X	X	X	X	
Age at operation			X	X	X		
Practitioner			X	X	X		
Facility			X				
Instrument/s used			X				
Anesthetic used			X				
Type			X				
Health complications			X				
Health care received			X				
Type of health care received			X				
Intention to have daughter/s undergo FGC			X		X	X	
Reasons for not having daughter undergo FGC			X				
Person/s encouraging daughter's operation			X				
Person/s opposed to daughter undergoing procedure				X	X		

Appendix B continued

Category of Question	Central African Republic 1994/95	Côte d'Ivoire 1994	Egypt 1995	Eritrea 1995	Mali 1995/96	Sudan 1989/90	Yemen 1991/92
Knowledge/Attitudes							
Awareness of FGC/ awareness of FGC in area			X				
Knowledge of activities against FGC in area				X			
Type of activities				X			
Support/oppose continuation	X		X	X	X	X	X
Reasons for support/opposition	X		X	X	X	X	X
Type to be continued				X	X	X	
Husband/partner attitudes				X		X	
Opinion about why practice continues						X	
Opinion on how to abolish FGC			X			X	
Opinions regarding whether FGC: is an important part of Islamic tradition; is preferred by husbands; can cause severe complications; prevents adultery; causes problems in getting pregnant; lessens sexual satisfaction; and makes childbirth difficult			X				

Production Notes

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