DHS Comparative Reports 7

Female Genital Cutting in the Demographic Health Surveys: A Critical and Comparative Analysis

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DHS Comparative Reports No. 7

Female Genital Cutting in the Demographic and Health Surveys: A Critical and Comparative Analysis

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September 2004

MEASURE *DHS+*

This publication was made possible through support provided by the U.S. Agency for International Development under the terms of Contract No. HRN-C-00-97-00019-00. The opinions expressed herein are those of the authors and do not necessarily reflect the views of the U.S. Agency for International Development.

Editor: Sidney Moore
Series design: Katherine Senzee
Document production: Justine Faulkenburg

Recommended citation:

Yoder, P. Stanley, Noureddine Abderrahim, and Arlinda Zhuzhuni. 2004. *Female Genital Cutting in the Demographic and Health Surveys: A Critical and Comparative Analysis.* DHS Comparative Reports No 7. Calverton, Maryland: ORC Macro.

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Preface

One of the most significant contributions of the MEASURE *DHS*+ program is the creation of an internationally comparable body of data on the demographic and health characteristics of populations in developing countries. The *DHS Comparative Reports* series examines these data across countries in a comparative framework. The DHS *Analytical Studies* series focuses on specific topics. The principal objectives of both series are to provide information for policy formulation at the international level and to examine individual country results in an international context. Whereas *Comparative Reports* are primarily descriptive, *Analytical Studies* take a more analytical approach.

The *Comparative Reports* series covers a variable number of countries, depending on the availability of data sets. Where possible, data from previous DHS surveys are used to evaluate trends over time. Each report provides detailed tables and graphs organized by region. Survey-related issues such as questionnaire comparability, survey procedures, data quality, and methodological approaches are addressed as needed.

The topics covered in *Comparative Reports* are selected by MEASURE *DHS*+ staff in conjunction with the MEASURE *DHS*+ Scientific Advisory Committee and USAID. Some reports are updates and expansions of reports published previously.

It is anticipated that the availability of comparable information for a large number of developing countries will enhance the understanding of important issues in the fields of international population and health by analysts and policymakers.

Martin Vaessen
Project Director

Acknowledgments

The authors would like to warmly thank those who reviewed the document and made numerous helpful comments: Sunita Kishor of ORC Macro, Bettina Shell-Duncan of the University of Washington, and Ylva Hernlund of the University of Washington.

Executive Summary

Female genital cutting (FGC), also known as female circumcision, or female genital mutilation (FGM), is a common practice in many societies in the northern half of sub-Saharan Africa as well as in Egypt and Yemen. Nearly universal in a few countries, it is practiced by various groups in at least 25 African countries, in Yemen, and in immigrant populations in Europe and North America. The cutting varies from a symbolic nicking of the clitoris to excision of tissue and partial closure of the vaginal area (infibulation). The ritual aspects vary from the straightforward cutting of an infant in the household context to complex rituals involving the cutting of groups of adolescent girls held in seclusion for weeks or months. In a few societies, the procedure is routinely carried out when a girl is a few weeks or a few months old (e.g., Eritrea, Yemen); in most, it occurs later in childhood or in adolescence.

This comparative report summarizes data on FGC from Demographic and Health Surveys (DHS) implemented between 1989 and 2002. It is intended to make more accessible the basic information on the distribution and practice of FGC and to encourage country-specific analysis of DHS data on FGC. The report describes the types of DHS data available on FGC, outlines some overall patterns in the data, identifies important changes over time, and comments on the questionnaires used from 1989 to 2002. By the end of 2002, there were a total of 20 DHS surveys that included questions on the circumcision status of women. The surveys covered 15 countries in Africa, plus Yemen.

FGC prevalence at the national level among women 15-49 years of age in African countries varies from 5 percent in Niger (1998) to 99 percent in Guinea (1999). Among the 15 African countries for which FGC prevalence data were available by the end of 2002, 8 had prevalence levels between 71 and 99 percent, and 7 were between 5 and 45 percent. When the countries are arranged in tables by region, certain similarities in prevalence rates appear; for example, FGC prevalence in the countries of northeastern Africa (Egypt, Eritrea, Ethiopia, and northern Sudan) ranges from 80 to 97 percent, while that of eastern Africa (Kenya and Tanzania) ranges from 18 to 38 percent.

Except for countries with prevalence rates above 90 percent, FGC prevalence varies widely within countries by ethnicity. Ethnicity provides a better explanation of the distribution of FGC within countries than other variables. Prevalence may be 1 percent in one group and 95 percent in another, in the same country. Distribution by religion or urban-rural residence is uneven.

The report discusses how the specific questions on FGC used in DHS surveys have changed over time (1989 to 2002). There has been variation in how women are asked about their circumcision status and, if circumcised, what type of circumcision was performed. There has also been variation in the way daughters are identified for purposes of determining circumcision status, and variation in the questions on individual perceptions about FGC.

Recent studies of FGC in African societies have shown that the practice varies widely in how it is conducted, and changes are under way in some societies. The literature on FGC suggests that overall, FGC prevalence is decreasing, that in many countries girls are being cut at earlier ages, that the ceremonial aspects of female circumcision have been reduced, and that a larger proportion of girls are being cut by

medical personnel than before. DHS data documents these trends in some countries but not others. Changes in FGC practices should be monitored so program specialists can design interventions that are adapted to local practices.

1

Introduction

1.1 Terms and Concepts Regarding FGC

The practice of female genital cutting (FGC) refers to "the cutting and removal of tissues of genitalia of young girls to conform to social expectations" (Gruenbaum 2001:2). The World Health Organization (WHO) speaks of injury to or removal of the female genitalia "for cultural or any other non-therapeutic reason" (WHO 1996). The practice has often been called *female circumcision*, for in some societies, the rituals surrounding both male and female circumcision form a part of the process of initiation into adulthood (e.g., Droz, 2000; Gessain, 1960; Jackson, 1977). However, many authors protest against any mention of *circumcision*, which, they argue, mistakenly suggests that FGC is analogous to male circumcision (cf. Transgrud, 1994). FGC is indeed quite unlike male circumcision in its physical and social consequences.

In the mid-1990s, WHO and many other groups adopted the term *female genital mutilation* (FGM) to describe the cutting of female genitalia, for it emphasizes the permanent physical damage done to the body. This is the term used by the majority of English speakers, as well as many activists who direct interventions against the practice, but there seems to be a clear shift toward using FGC. Yet another term that has been suggested, but not often used, is *female genital surgeries* (Obermeyer, 1999).

More recently, researchers and interested parties have expressed concern that the term female genital mutilation "stigmatizes the practice to the detriment of the programs trying to change it" (USAID, 2000). A number of specialists from African countries have objected to the term *mutilation*, saying the term is judgmental and implies disrespect (Eliah, 1996). According to Shell-Duncan and Hernlund, it was Ugandans working on the REACH (Reproductive, Educative and Community Health Programme) project who first suggested the term *female genital cutting* to replace FGM (Shell-Duncan and Hernlund, 2000:6). The more neutral term, *female genital cutting*, preferred by an increasing number of researchers, is the term recommended by the United States Agency for International Development (USAID) and is used in this document to refer to the practice. For linguistic convenience, however, words such as *circumcise* and *circumcised* are still used in the text as synonyms of the term *cut*. French speakers generally use the term *excision* for actions or practices that are known in English as FGM or FGC.

FGC is a common practice in many societies in the northern half of sub-Saharan Africa as well as in Egypt and Yemen.

FGC is a common practice in many societies in the northern half of sub-Saharan Africa as well as in Egypt and Yemen. Nearly universal in a few countries, it is practiced by various groups in at least 25 African countries, in Yemen, and in immigrant populations in Europe and North America. In a few societies, the procedure is routinely carried out when a girl is a few weeks or a few months old (e.g., Eritrea, Yemen), but in most, it occurs later in childhood or adolescence. In the case of the

latter, FGC is often part of a ritual initiation into womanhood that includes a period of seclusion and education about the rights and duties of a wife.

FGC includes a range of practices, varying from a simple nick of the clitoris to the partial or complete removal of the external female genitalia for nonmedical reasons. For a sample of what is most commonly thought about this subject, we refer to the opening paragraph of a 1997 article called "Female circumcision: Rite of passage or violation of rights?" written by Frances Althaus (1997:130).

> Female circumcision, the partial or total cutting away of the external female genitalia, has been practiced for centuries in parts of Africa, generally as one element of a rite of passage preparing young girls for womanhood and marriage. Often performed without anesthetic under septic conditions by lay practitioners with little or no knowledge of human anatomy or medicine, female circumcision can cause death or permanent health problems as well as severe pain. Despite these grave risks, its practitioners look on it as an integral part of their cultural and ethnic identity, and some perceive it as a religious obligation.

The image that comes from this description—that of a painful traditional rite of passage that places the lives of young girls in danger—is well known to researchers and activists, who often assume that FGC "is an 'ancient' and deeply entrenched practice, that it is associated with initiation, with Islam, and with patriarchy" (Shell-Duncan and Hernlund, 2000:3). The authors point out, however, that FGC is a recent practice in some societies, that it is not always part of an initiation ritual, and that most of the Islamic world does not observe the practice. While the practice in what is now Egypt and Sudan predates Islam by hundreds of years, in some parts of West Africa it began to be practiced in the 19th or early 20th centuries (Ottenberg, 1994). In countries such as Chad, The Gambia, and Mali, ethnographic research has shown that the practice of FGC is changing rapidly (Gosselin, 2000; Hernlund, 2003; Leonard, 2000).

FGC includes a range of practices, varying from a simple nick of the clitoris to the partial or complete removal of the external female genitalia for nonmedical reasons.

If FGC is not just an Islamic practice, if it is not necessarily a rite of passage for young girls, if it has not been practiced for hundreds of years in some societies, and if the practice is changing over time, then our image of FGC as an ancient tradition very difficult to change must be questioned. The best way to clarify and correct our stereotyped images of FGC is to collect data on the practice and monitor changes over time through population-based surveys and ethnographic studies of current practices. There is a wealth of survey data now available, but ethnographic studies are few. Some researchers have shied away from conducting research on the practice of FGC because they do not want to be seen as condoning the practice. A small number of studies of FGC today have been conducted (c.f. Gosselin, 2000; Hernlund, 2003; Leonard, 1996; Yoder et al., 1999).

Since 1984 the Demographic and Health Surveys (DHS) program, which is funded by USAID, has assisted developing countries worldwide to conduct nationwide surveys on a wide range of topics related to health and population. The topics covered in the core questionnaires for women include demographic characteristics, fertility, family planning, maternal and child health and nutrition, and knowledge and practice related to HIV/AIDS. In addition to the core questionnaire, modules on subjects of particular interest (e.g., malaria, FGC, women's status, domestic violence, HIV/AIDS) are available for use if a country so chooses. By the end of 2002, DHS

had conducted over 150 surveys in 68 countries, with questions about FGC asked in 16 countries.

A series of questions (module) on FGC has been used in national surveys in a number of African countries since 1989. DHS collected FGC data for the first time in a 1989-90 survey in northern Sudan after the USAID Mission and the Ministry of Health showed great interest in collecting data on FGC. In that survey, women were asked whether they had ever been circumcised, what type of FGC had been done, and who performed the operation. A number of questions followed asking their opinion about the practice. This pattern of questioning has been followed to a large extent in subsequent surveys.

FGC is a recent practice in some societies, it is not always part of an initiation ritual, and most of the Islamic world does not observe the practice.

1.2 Purpose of This Study

This report summarizes the data on FGC from all DHS surveys implemented between 1989 and 2002 that included questions about FGC prevalence, in order to make more accessible the basic information about how and when FGC has been practiced, and to encourage country-specific analyses of DHS data on FGC. The study describes the kind of DHS data available on FGC, outlines patterns in the data, identifies important changes over time, and comments on the questionnaires used from 1989 to 2002. By the end of 2002, a total of 20 DHS surveys that included questions about whether women had been circumcised had been conducted, including surveys from 15 countries in Africa, plus Yemen.

By drawing on the data from 20 surveys conducted over a period of 14 years, a great deal can be learned by disaggregating variables in different ways and by looking at trends over time. It also is important to examine changes in the questionnaires over time to see which questions appear to provide the most useful information. This study seeks to highlight patterns that exist in the data, illustrates how these data can be used to inform programs, examines the development of questions used in the surveys, and reflects on the data collection process. It also raises questions about the status of FGC in individual countries that can best be answered by further analysis of data from these countries.

In many ways, this research builds on an earlier study of FGC by Dara Carr called *Female Genital Cutting: Findings from the Demographic and Health Surveys Program* (1997). Carr summarized the main findings on FGC from DHS surveys from 1990 to 1996 in six countries in Africa plus Yemen. Carr focused on issues of greatest interest for programs seeking to eradicate FGC. As the first publication that provided prevalence and other information on FGC derived from national sample surveys, Carr's report has been extremely useful for understanding the FGC situation in these countries. It remains one of the richest and most informative texts available about FGC prevalence and related information useful for program purposes.

1.3 Questions to Consider

Researchers who have examined evidence of FGC in various countries have been most interested in obtaining data on prevalence, on the type of FGC practiced, on possible medical consequences, and on indications that the practice is changing. The literature on FGC was long dominated by personal accounts of tragic events, small-scale studies of circumcision in a town or a set of villages, and studies of medical complications of circumcised women delivering in a hospital. That changed in the 1990s with population-based surveys and large studies on the types of FGC prac-

ticed. Toubia and Sharief (2003) have recently summarized the evolution in perspective within the international development community regarding how and why FGC should be combated, underlining the shift from a focus on the medical consequences to one on human rights.

The 16 countries for which we have FGC prevalence data can be divided into three categories, according to the national prevalence rate of FGC:

1. Countries where nearly all girls get circumcised and where prevalence is high (70 to 99 percent)
2. Countries in which only certain ethnic groups practice circumcision and where prevalence is relatively moderate (23 to 50 percent)
3. Countries in which only a few ethnic groups practice FGC and where national prevalence is low (5 to 20 percent).

Information about changes in the practice of FGC over time may provide ideas on how to intervene more effectively to abolish the practice.

Data on changes over time can be obtained by comparing information about the FGC experience from mothers and their daughters, by comparing FGC among older and younger cohorts of women, or by comparing the results of two surveys (possible in Côte d'Ivoire, Egypt, Eritrea, and Mali). This analysis will examine evidence for changes in the overall rate of FGC at national and regional levels, in the types of operations conducted, in the age at the time of FGC, and in the identity of the person carrying out the operation.

Information about FGC as an event is critical to understanding how female circumcision has been carried out and how the practice is distributed in a population. Data on the distribution of FGC and how it is practiced can be useful to guide strategies for interventions against the practice. Families live in social environments of three kinds with regard to FGC: 1) those in which nearly everyone has their girls cut, 2) those in which no one has their girls cut, and 3) those in which some girls get cut while others do not. The latter situation occurs in some urban areas and in regions of ethnic diversity. It seems reasonable to assume that interventions would use different strategies when all girls are getting cut as opposed to only some. Information about how the event of FGC occurs is also vital in planning interventions. In the Egypt 2000 survey data, for example, more than half of the cutting was done by physicians and nurses, while in many countries in West Africa, 80 to 90 percent of the operations are carried out by traditional practitioners. In addition, information about changes in the practice over time may provide ideas on how to intervene more effectively to abolish the practice.

Finally, this report discusses how the specific questions asked about FGC in the DHS surveys have changed over time from 1989 to 2002. There has been variation in how women are asked whether they are circumcised and, if so, the type of circumcision done; there is also variation in the way a daughter is identified to ask about her circumcision status, and there has been variation in the questions on individual perceptions about FGC.

The information provided in this study comes from the FGC data presented in the final reports, from additional analyses of country-level data, from contacts with researchers working on these issues, and from a review of recent literature on FGC. Data are aggregated in ways that show patterns within or between countries. Particular attention is given to showing how these data can be used for informing program priorities. The date given for the surveys is the date of the fieldwork.

The statistical method used by the authors to examine the DHS data was bivariate analysis. Additional information could no doubt be gained by using multivariate analyses. For example, it might be possible to assess the relative importance of variables such as urban-rural residence, religion, and ethnicity in the distribution of FGC prevalence. Such analyses might also explain some of the anomalous results that appear in a few of the tables.

This report is organized around the following questions:

1. What issues have interested researchers studying FGC?
2. How has the data collection process changed over time?
3. What do we know about the prevalence of FGC in various countries?
4. What can be learned from looking at the distribution of FGC within countries?
5. What indications of changes in the way FGC is done can be discerned in the data?
6. How can data on individual perceptions of FGC be used to better understand the situation?

The concluding chapter discusses the implications of FGC studies and the ongoing collection of FGC data by the Demographic and Health Surveys for programs and organizations seeking to abolish the practice of FGC.

2

Studies of Female Genital Cutting

2.1 Collection and Interpretation of Data on FGC

The literature on FGC ranges widely from life histories and anecdotal accounts of personal tragedy to medical studies and reports from population-based surveys. Advocates for interventions to eradicate FGC as well as researchers who study the practice have often argued over terminology as well as priorities.

We will not be presenting a full account of studies of FGC over the past several decades because other researchers have published such summaries. In the introduction to their edited volume entitled *Female "Circumcision" in Africa*, Shell-Duncan and Hernlund present an overview of the discourse around FGC, beginning with the Hosken Report in 1979 (Shell-Duncan and Hernlund, 2000). They include an insightful discussion of the issues surrounding FGC as they have become politicized both nationally and internationally. They argue that the practice of FGC must be understood from the viewpoint of participants as well as outside observers and that the practice is undergoing rapid change. Ellen Gruenbaum writes about the evidence for FGC prevalence and the debate about what constitutes FGC, with a focus largely on Sudan, but her insights can be applied broadly (Gruenbaum, 2001). An article in *Medical Anthropology Quarterly* by Carla Obermeyer summarizes evidence from 435 published accounts of FGC studies related to prevalence, health consequences, and other consequences (Obermeyer, 1999). Obermeyer has pointed out that resources for studies on FGC have gone largely to projects designed to eradicate FGC, and that solid evidence for the negative health consequences of cutting is sparse at best.

The literature on FGC ranges widely from life histories and anecdotal accounts of personal tragedy to medical studies and reports from population-based surveys.

This brief review comments on key issues related to several common questions. Each of these questions structures a brief discussion of the relative evidence available.

- Where does FGC occur?
- How does FGC occur?
- What are the health consequences of FGC?
- Why does the practice continue?

2.2 FGC Prevalence Estimates

Figures on the prevalence of FGC are important for estimating the extent of the phenomenon and the number of women at risk. Once national prevalence figures are calculated, it is possible to estimate how many women are at risk for FGC in sub-Saharan Africa. These overall figures can then be used to publicize the threat that FGC poses to women's health and human rights.

The first effort to estimate prevalence at the national level was made by Francis Hosken. She published *The Hosken Report* (1982), which included estimates for

prevalence at the national level for 28 countries. However, much of the information in the report was based on anecdotal evidence. In a more systematic approach a decade later, Nahid Toubia summarized data on FGC prevalence in her report entitled *Female Genital Mutilation: A Call for Global Action* (Toubia, 1993). When Toubia's report was published in 1993, no population-based survey covering an entire country had been conducted using questions about FGC prevalence. In 1990, ORC Macro published a country report on Sudan that covered only the six northern provinces. FGC prevalence cited in that report was 89 percent. The next surveys with similar questions were carried out in 1994. The first comparative study of DHS data on FGC was published by Macro in 1997 (Carr, 1997).

Early estimates of the prevalence of FGC in African countries have not often been confirmed by national surveys, having erred on both the high and the low side.

It is important to get accurate estimates of FGC prevalence for several reasons: for judging the relative importance of adverse health consequences, for the allocation of resources, and for planning interventions. For example, Nahid Toubia (1993), borrowing from Hosken, provided an estimate of 50 percent prevalence for Nigeria. This estimate prompted Ellen Gruenbaum to write the following: "Nearly a third of the cases in Africa are in Nigeria, not because of high prevalence but because of its large population; the country accounts for 30.6 million of the 114.3 million cases for Africa as a whole, according to Toubia" (Gruenbaum, 2001:8). In the DHS survey of 1999 in Nigeria, however, a prevalence of 25 percent, not 50 percent, was found.

In a publication from 2000, the authors state that, "based on current estimates, 18 African countries have prevalence rates of 50 percent or higher" (Rahman and Toubia, 2000:7). DHS surveys to date have found eight countries with a prevalence rate of more than 50 percent, but no DHS surveys with questions about FGC have ever been conducted in Somalia, Djibouti, The Gambia, or Sierra Leone, all countries where prevalence is thought to be high. The total number of countries with FGC prevalence greater than 50 percent is thought to be at least 12.

Early estimates of the prevalence of FGC in African countries were good faith efforts to calculate likely numbers on the basis of the evidence available. These estimates have not often been confirmed by national surveys, having erred on both the high and the low side. A number of texts have suggested that more than two million girls are at risk for FGC each year, most of them in sub-Saharan Africa. By the end of 2003, DHS had collected data on FGC prevalence for 17 of the 28 countries discussed by Toubia, and 3 of the remaining 11 are The Gambia, Guinea-Bissau, and Djibouti, with small populations. Figures for the numbers of females at risk of FGC in African countries can now be calculated with the annual birth rates and FGC prevalence figures from national-level survey data.

2.3 Types of Female Genital Cutting

Knowing what was done to a girl or woman at circumcision is important for anticipating possible health consequences in the short and long term—consequences that may range from psychological distress to death. Both the frequency and severity of health complications after FGC are a function of the extent of the cutting and the circumstances of the event (Obermeyer, 1999). The extremes are easily described: a simple nick of the clitoris to draw a drop of blood versus infibulation, which involves removal of the female external genitalia accompanied by closure of the vaginal area. The types of cutting (variations of clitoridectomy and excision) range along a continuum between the two extremes, and can be described but not easily identified.

On the recommendation of Toubia (1994), the World Health Organization adopted a classification of FGC that divides the operation into four types, or categories:

- Clitoridectomy: total or partial removal of the clitoris
- Excision: removal of the clitoris and partial or complete removal of the labia minora
- Infibulation: removal of the clitoris, the labia minora and labia majora, with a narrowing or near closure of the vaginal opening
- Any other variations.

Systematic data on FGC type have been collected through population-based surveys and through clinical examinations. In the earlier surveys, women were usually asked about what was done to them, and the answers were classified by the interview into precoded categories. In clinical contexts, women may be also asked whether they had been cut, but a gynecologist conducts vaginal exams and makes a judgment about what was done. Surveys offer the advantage of providing information on large numbers of women, but the information may not always be accurate. Clinical examinations are more accurate, but usually accommodate only a small number of women.

A few studies of FGC typed through clinical examination have been conducted by medical researchers. The 1995 Egypt DHS survey included a clinical component designed to compare the answers of respondents on their FGC status with physical examinations. The study was conducted in five university hospitals, several rural hospitals, and two urban clinics. Women attending the family planning clinics or who came for other gynecological examinations were interviewed with the FGC questions from the DHS and were then given pelvic examinations by gynecologists specially trained to identify the type of FGC. The study included 1,339 women age 15-49. In 94 percent of cases, the woman's report regarding whether she had been circumcised matched that of the examining physician. In 5 percent of cases, the woman had reported that she was circumcised, but no such evidence was found. The study did not report on the types of FGC observed.

Knowing what was done to a girl or woman at circumcision is important for anticipating possible health consequences.

In 1999, Snow and colleagues conducted a cross-sectional study of reproductive health among women age 15-49 attending antenatal and family planning clinics in three hospitals in Edo State, Nigeria. Clients at these clinics were interviewed by nurses/midwives about their social and demographic background, reproductive history, and experience with FGC. The interviews were followed by a routine vaginal examination by an obstetrician/gynecologist, who reported on the type of FGC performed on those who had been circumcised (Snow et al., 2002). The article reported on a sample of 1,709 women in Benin City and Irrua. The study found that 46 percent (N=789) had undergone FGC according to the physical exam: 34 percent had undergone clitoridectomy, 12 percent excision, and 1 percent infibulation. A comparison of the self-reported data with the data from the clinical exams showed that 79 percent of the women provided correct information about their circumcision status, 14 percent said that they were not certain, and 7 percent reported their status incorrectly. Among the 14 percent who were unsure of their FGC status, 85 percent had not been cut. The proportion of women who were uncertain about their circumcision status (14 percent) was larger than expected.

Linda Morison and colleagues conducted a community survey among women age 15-54 in 20 villages in The Gambia "to estimate the prevalence of reproductive morbidity on the basis of women's reports, a gynecological examination, and laboratory analysis of specimens" (Morison et al., 2001:643). A total of 1,346 women were interviewed in 1999, and 1,157 consented to a gynecological exam. Fifty-eight percent of the women interviewed (779 out of 1,346) with a structured questionnaire reported having been cut, and 3 of these women reported that they had been "sealed" (similar to infibulation). A clinical exam showed that 58 percent (671 out of 1,157) of women showed signs of having undergone FGC.

The study by Morison and colleagues found agreement between the respondents' reports and the clinical examination about the FGC status (cut or not cut) in 97 percent of the cases. A total of 21 women reported that they had been circumcised, although the physical examination showed no signs of it. Ten women reported an excision type of FGC, whereas the examination showed that they were sealed shut; seven women reported that they had not been cut, while the exam showed evidence of FGC. Thus, in a total of 38 cases (3 percent) out of 1,157, there was disagreement between the women's reports and the physical exams conducted to ascertain the women's circumcision status.

These studies suggest that there is sufficiently strong confirmation of FGC status from women's reports to warrant the use of survey data to calculate the prevalence of FGC. Studies that involve clinical examinations as well as individual interviews about FGC can provide valuable additional insights into the practice. Both strategies provide essential information about the practice of FGC.

2.4 Health Consequences of FGC

As is apparent in the many published accounts of medical problems following FGC, writers in both popular and scientific literature have long been concerned about the medical consequences of FGC. There are certain health risks associated with nearly all types of FGC, but the risks vary substantially. Until the mid-1990s, efforts to eradicate the practice cited health repercussions as the main reason to ban the practice.

While many accounts of the disastrous effects of FGC on individual women have been published, relatively few studies have attempted to judge the extent of the problem or to assess the overall impact of FGC on women's health in large populations. In fact, estimating the impact of FGC on women's health has proved a major challenge. Using standard terms from epidemiology, Carla Obermeyer has pointed out that measuring the degree of cutting—evaluated by the type of circumcision done—has proved difficult to apply in practice. Measuring the outcome of FGC—the medical consequences—is subject to several types of bias (Obermeyer, 2002). There is recall bias, since women are asked about events that occurred many years earlier. There is observer bias, as researchers are more likely to notice health consequences in the persons exposed (cf. Jones, et al. 1999). It has not proved easy to define and measure the health complications likely to have been caused by FGC.

The World Health Organization has compiled a list of possible health consequences of FGC and divided them into three categories: short-term medical; long-term medical; and sexual, mental, and social consequences (WHO 1996). The short-term effects include pain, hemorrhage, urinary retention, infection, and shock. The long-term consequences include keloid scars, pelvic infections, infertility, menstrual

difficulties, and problems in pregnancy and childbirth. Numerous other complications are mentioned in the literature on medical implications of FGC. Researchers have amply demonstrated that many of these complications pose a serious threat to health. It has proved more difficult to evaluate the "burden of disease," the impact of these complications on women's health on a larger scale. How might the relative risk of health consequences for FGC be estimated?

Data on the distribution of medical complications following FGC can be obtained through case-control studies that compare outcomes among the "exposed" and the "unexposed" groups through clinical examinations or through self-report evidence from population-based surveys. Very few case-control studies have been carried out to date. The study mentioned above conducted in The Gambia by Linda Morison and her colleagues is one example. In both the interview (N=1,346) and the exam data (N=1,157), 58 percent of the women had been circumcised. Women who had undergone FGC had a significantly higher prevalence of bacterial vaginosis (odds ratio [OR]=1.66) and higher prevalence of herpes simplex virus 2 (OR=4.71). Other commonly cited consequences of FGC (e.g., excessive keloid formation, damage to perineum, painful sex, infertility, prolapse, other reproductive tract infections, obstructed labor) were not significantly more common among those who had been circumcised.

In 1998, Heidi Jones and her colleagues directed a study of medical consequences of FGC in Mali and Burkina Faso, but it was not a true case-control study. They interviewed individual women attending antenatal, family planning, and gynecological services and then asked that the women agree to a pelvic exam (Jones et al., 1999). Observers were trained to note whether the women had been circumcised, the type of cutting, and any evidence of medical complications. However, they failed to note whether women who had not been circumcised had any medical complications. The study found that 5 percent of the sample in Mali and 14 percent in Burkina Faso showed complications that could be associated directly or indirectly with FGC. The most common type of complication was scarring (more than three-fourths of cases). The study also found that the more severe the cut, the more likely the health complication.

A 1998 study found that the more severe the cut, the more likely the health complication.

The study from Edo State, Nigeria, reported above also examined the relationship between being circumcised and experiencing problems at childbirth, through self-report questions. The authors found that circumcised women had higher risks of tearing and of stillbirths than those who were uncircumcised, but there was no difference in the risks of prolonged labor, episiotomies, or caesarean sections (Larsen and Okonofua, 2002).

In her comprehensive overview of FGC literature, Carla Obermeyer found that only 30 studies out of 435 published before 1996 dealt with the health effects of FGC and that only 8 out of those 30 were designed in ways to permit generalizations to larger populations (Obermeyer, 1999). In these latter studies, the frequency of short-term health problems often cited (e.g., shock, hemorrhage, infection, scarring) varied from 0 to 15 percent with self-report data. The studies also found that health consequences were more common with infibulation than with other types of FGC. Obermeyer's followup review of publications from 1997 to 2002 found an increase in high-quality studies of medical complications of FGC (Obermeyer, 2003).

DHS data on self-reported health consequences are available for a limited number of regions or countries. The DHS surveys asked respondents about the health consequences of FGC from their own experience in only three surveys: Eritrea 1995 and

2002, and Egypt 1995. In the 2002 Eritrea survey, women were asked whether they had problems during sexual relations or delivery linked to FGC. Those who had been infibulated were far more likely to report problems during intercourse (15 percent) and delivery (22 percent) than those with a milder version of FGC (1 and 3 percent, respectively).

Survey respondents with at least one circumcised daughter were asked about the health consequences of FGC for their daughters in six surveys: Yemen 1997, Egypt 1995, Benin 2001, Guinea 1999, Mali 2001, and Mauritania 2000-01. In Yemen 1997 and Egypt 1995, women were asked whether any complications arose after their daughter's circumcision and, if so, what those complications were. Eleven percent of women in Yemen and 5 percent in Egypt said that their daughters had experienced complications.

A substantial number of mothers reported complications following their daughter's circumcision: 21 percent in Benin, 22 percent in Mali, 41 percent in Guinea, and 53 percent in Mauritania.

In the four West African countries, the same questions were asked. Respondents who had a circumcised daughter were asked if their daughter had experienced any of the following after her circumcision: 1) excessive bleeding, 2) difficult urination, 3) swelling of the genitals, 4) genital infections, and 5) slow or partial healing of scars. Each problem was cited, and the mother responded with "yes" or "no" for each one. A substantial number of mothers reported complications following their daughter's circumcision: 21 percent in Benin, 22 percent in Mali, 41 percent in Guinea, and 53 percent in Mauritania. Excessive bleeding and difficulty in urinating were the two complications cited most often.

Data such as these provide some measure of the proportions of girls who suffered health complications after circumcision, although the validity of such questions remains unclear. Do we not consider all bleeding to be excessive? Further analysis of such data might show the strength of the relationship between the health consequences and the type of cutting done, the type of person who did the cutting, or even the age of the girl. Even though the questioning format may lead to an overestimate of the number of complications, that does not reduce the seriousness of these consequences for so many girls.

2.5 Continuation of the Practice of FGC

Researchers, activists, and observers often ask themselves and others why FGC continues to be practiced. Outside observers find it difficult to understand why families would engage in a practice that causes pain and often harms a child. The question needs to be refocused to a particular society: Why do the people in society *X* practice FGC? Some researchers believe that understanding why the practice continues may lead to identifying more effective ways to combat it.

In her book, *The Female Circumcision Controversy*, Ellen Gruenbaum provides an overview of the issues that arise in the study of FGC in individual societies. She writes from the perspective of an anthropologist who conducted most of her fieldwork in Sudan. Gruenbaum's comments (2001:33) about why FGC continues are often cited in the literature:

> There is no simple answer to this question. People have different and multiple reasons. Female circumcision is practiced by people of many ethnicities and various religious backgrounds, including Muslims, Christians, and Jews, as well as followers of traditional African religions. For

> some it is a rite of passage. For others it is not. Some consider it aesthetically pleasing. For others, it is mostly related to morality or sexuality.

As the quote indicates, FGC is practiced for many reasons. In some societies in western and eastern Africa, FGC forms part of a coming-of-age ritual that is followed soon after by marriage (e.g., Coniagui, Kuranko, Kono, Mandinga, Kikuyu, Okiek). In other groups, the cutting is performed in the first few months of a girl's life with little or no ceremony (e.g., Eritrea, Ethiopia, Yemen). Furthermore, in any one society, the reasons articulated by respondents will always be multiple. The head of a household may propose one reason, a religious leader another, a local poet, or a philosopher, or a social scientist still other reasons.

In seeking to understand why members of a certain society continue to practice FGC, the explanations are shaped by where the observer has chosen to look. Is the context being considered at the societal level, the family level, or the individual level? Most discussions of why FGC is practiced are based on individual or group interviews that ask people to explain why they practice FGC. The question is answered in the abstract, seeking a general explanation for the society. Thus, normative and functionalist explanations are offered: It is "tradition, religion, culture, the way of my ancestors."

At the family or lineage level, the issue of how and why FGC is done often revolves around the senior females of the household. As Ellen Gruenbaum (2001) and Molly Melching (2003) have pointed out, mothers organize the circumcision of their daughters because that is considered part of raising a girl properly, of being a responsible mother. In small group discussions among women in central Guinea who were talking about the Koran and FGC, those who said the Koran required female circumcision said that their religion required that parents do three things for their daughters: "to educate them, to circumcise them, and to find them a husband" (Yoder et al. 1999). In ethnic groups where nearly everyone circumcises girls, the issue is not one for debate, in terms of "do I do it, or not?" Rather, family members decide how and when it will be done.

The issue of how and why FGC is done often revolves around the senior females of the household.

Ylva Hernlund, who completed a dissertation in 2003 on FGC in The Gambia, entitled one of her chapters "Contingency and context: the dynamics and dilemma of decision making." The title was chosen to focus on the contingent and contextual nature of deciding to have a girl circumcised. She writes, "I believe there is a broad range of realities inhabited by those who participate in FGC, from strong support to strong opposition, but with occasional movement over time by an individual or even community from one category to another" (Hernlund, 2003:209). She provides accounts of women who wanted their daughters circumcised, some who did not want the procedure performed but who failed to prevent it, and some who succeeded in shielding their daughters from being circumcised. She also noted that the campaigns against FGC were opening the issue of FGC to debate for the first time in contexts where the practice was routine.

Accounts of an individual mother reflecting on whether she should take her daughter for circumcision or not, or a single girl or woman deciding to be circumcised herself, are rare indeed, but a few such cases have been described (e.g. Leonard, 2000). The reason given in these contexts is linked to social status acquired by being circumcised. Hernlund (2003) reports that girls in the Bakau area of The Gambia were most concerned about being mocked and ridiculed by their peers if they were not circumcised. Evidence from several countries has shown that in social contexts

where a group with political power routinely circumcises its daughters and a subservient group does not, some members of the subservient group will begin to practice FGC.

In countries where some ethnic groups practice FGC and others do not—which is typical of East and West African countries—the social context of life in urban, as opposed to rural contexts, presents a somewhat different picture. The ethnic diversity of urban populations means that families that practice FGC interact with families that do not. Sometimes there is intermarriage between practicing and nonpracticing groups (Hernlund, 2003). One would expect that families would have more choices to circumcise or not in urban areas, though this phenomenon has not been documented at the family level. At the regional and national level, DHS survey data do show contrasts between urban and rural areas. As will be shown later, in most countries prevalence rates are lower in urban areas than in rural areas.

2.6 Research Priorities

Documentation of the practice of FGC has increased substantially in the past few years, resulting in the publication of many books and articles. The dissemination of DHS country reports and other FGC data has provided information on FGC prevalence and its distribution. Many reports on specific anti-FGC projects implemented by government institutions and nongovernmental organizations (NGOs) have been published. WHO has embarked on a multisite study of the medical consequences of FGC.

It is important that researchers provide information on how female circumcision is being conducted so that program specialists can design effective interventions. We need to understand who leads the discussions about how and when to circumcise, and what sort of persons take responsibility to see that FGC is carried out. In their discussion of recent strategies against FGC, Toubia and Sharief (2003:255) have noted the following:

It is important that researchers provide information on how female circumcision is being conducted so that program specialists can design effective interventions.

> Because of the lack of understanding of the motives of those who protect and promote the practice and their potential benefits from change, the outcome of the investment has not always been that intended by the project designers or the funding agency.

Most girls are subjected to FGC in one of two social contexts:

1. Within families that are part of clans or ethnic groups that practice it routinely
2. In urban (and a few rural) contexts where some families or groups practice FGC and others do not.

In contexts where FGC is routine, the research strategy should focus on the process of deciding when and how FGC should be carried out, and who participates in the action, so that the most effective ways to create discussions on the subject can be identified. In contexts where individuals and families interact with both those who practice FGC and those who do not, the research should focus on the interactions through which the decision to circumcise or not is negotiated within families or lineages, so that ways to support the decision not to practice FGC can be identified. A better understanding of how circumcision occurs in both of these contexts can provide valuable information for programs seeking to abolish FGC.

3

Development of FGC Questions in DHS Surveys

This chapter describes the development of FGC questions in the DHS questionnaire from the earliest survey in northern Sudan to the current FGC module (see Appendix). Questions related to the type of circumcision performed and individual opinions and perceptions of FGC are the ones that have changed the most over time. After a presentation of the early surveys, this chapter focuses on what has been learned about the advantages of the different ways of asking questions about the type of circumcision, about which daughter(s) to ask about, and about individual perceptions of FGC. An understanding of the sequence of questions used in each country can inform the comparison of data collected in the various surveys.

DHS surveys have included questions about FGC in selected countries since 1989.

DHS included questions about FGC in selected countries from 1989 onward. The actual questions asked have varied over the years in response to concerns and data needs of Ministry of Health officials from individual countries, of USAID Mission personnel, and of interested parties within USAID and other donors and NGOs. Discussions with these and other groups, as well as field experience, have resulted in the development by DHS of a standard FGC module with suggested questions to be used in any country where FGC is practiced.

3.1 Early DHS Surveys

The first DHS survey that asked questions about FGC was the 1989-90 survey in northern Sudan. The section on FGC began with three questions about the event of circumcision:

- Have you ever been circumcised?
- What type of circumcision did you have?
- Who performed the circumcision?

Respondents were then asked whether all their daughters had been circumcised, and if the response was negative, they were asked whether they planned "to have all their daughters circumcised." Then nine questions were asked about women's perspectives on the practice.

The next DHS surveys that included questions on FGC prevalence were conducted in Côte d'Ivoire and the Central African Republic (CAR) in 1994. The Côte d'Ivoire survey asked only three questions: Were you circumcised, how old were you, and who performed the operation? The CAR survey asked seven questions and included four questions about the event:

- Are you circumcised?
- How old were you then?
- Did you have any problems after the circumcision?

- What were those problems?

In the 1991-92 DHS survey in Yemen, three questions about FGC were asked, but women were not asked whether they had been circumcised. Therefore this first Yemeni survey is not included in the overall data presentation. The questions asked were the following:

- Do you approve or disapprove of female circumcision?
- Why is that?
- What is the main reason for that?

The DHS questions on FGC increased in number and were standardized after the surveys of 1994. The questions asked can be grouped into three categories:

- FGC status of the respondent and of one daughter
- Circumstances of the event for the respondent and for the daughter (e.g., age, type of FGC, person who did the cutting)
- Perceptions of FGC (e.g., support, benefits, drawbacks, health consequences, rationale for doing FGC).

In the majority of surveys after 1996, women were first asked whether they had ever heard of FGC before being asked whether they were circumcised. This question acts as a filter, and those who say that they have never heard of FGC are not asked any more questions on the subject. This approach was used in a little over half of the surveys (11 of 20). In two other surveys (Kenya 1998 and Tanzania 1996), respondents were asked whether women are circumcised "in this area" or "in this community," but the question was not used as a filter. In the seven other surveys, the sequence of FGC questions begins with some form of the question on the circumcision status of the respondent.

3.2 Later DHS Surveys

Almost all DHS surveys conducted between 1994 and 2002 that included questions about FGC asked about the respondent's and one daughter's circumcision as well as questions about individual perceptions of FGC. While the questions about the FGC status of respondents can be considered as roughly equivalent from one survey to the next, major variations can be seen in the questions asked about the type of circumcision performed, the way daughters were identified for questions about their FGC status, and the opinions of respondents about FGC.

Almost all DHS surveys conducted between 1994 and 2002 that included questions about FGC asked about the respondent's and one daughter's circumcision.

This chapter examines the ways questions were formulated in each section of the FGC module as well as the ways responses can be used. Respondents were usually asked three questions about their own experience: How old were you at the time? What was done (type of FGC)? Who (type of person) did the circumcision? For those with at least one living daughter, the same series of questions was asked about the daughter. Questions about individual perceptions of FGC varied widely and will be discussed below.

3.3 FGC Status of Respondents

Table 3.1 shows the main topics respondents were asked about in the 20 surveys that reported on FGC from 1990 to 2002. The table does not include a column for the circumcision status of the respondent, since all surveys asked respondents whether they were circumcised, with slight variation in the way the question was asked. This was the only question asked in all 20 surveys, although it took several forms, as seen below.

- Are you circumcised?
- Have you been circumcised?
- Have you ever been circumcised?
- Have you yourself ever had your genitals cut?
- Did you have your external genitals cut?

It may be useful to add a "don't know" code as a possible response to the question about being circumcised, because a few women may not know if they have been cut.

We assume that these forms of the basic question ("Are you circumcised?") are equivalent because they are linguistically similar, and the questions can all be answered by "yes" or "no." There is no code provided for those who do not know their circumcision status. Prevalence rates for FGC in survey populations are calculated from the answers to this question.

It may be useful to add a "don't know" code as a possible response to the question about being circumcised, because a few women may not know if they have been cut. Evidence from Nigeria and Ghana suggests that women are not always sure of their circumcision status. Two studies using individual interviews at hospitals in Nigeria have found that between 20 and 35 percent of women responded to this question with "I don't know" (Adinma, 1997; Snow et al., 2002). Many of these women, however, may never have heard of FGC. The Navrongo research team in northern Ghana conducted large sample surveys among women in the Kassena-Nankana district in 1995 and again in 2000 using the same sample that included questions about FGC.

Table 3.1
Coverage of specific FGC topics in DHS surveys 1989-2002

Survey	Ever heard of FGC	Occurrence of FGC for respondent	Occurrence of FGC for daughter	Support for FGC	Why continue FGC	Benefits of FGC	Required by religion	Medical problems
Sudan (northern) 1989-90				X	X			
Côte d'Ivoire 1994		X						
CAR 1994-95				X	X			X
Egypt 1995	X	X	X	X	X		X	X
Eritrea 1995		X	X	X	X			X
Mali 1995-96		X	X	X	X			
Tanzania 1996		X	X					
Yemen 1997	X	X	X	X	X			X
Niger 1998	X	X	X	X	X			
Kenya 1998		X	X	X	X			
Côte d'Ivoire 1998-99	X	X	X	X	X			
Burkina Faso 1998-99	X	X	X	X	X			
Nigeria 1999		X	X	X	X			
Guinea 1999	X	X	X	X		X	X	X
Egypt 2000	X		X	X		X	X	
Ethiopia 2000	X	X	X	X				
Benin 2001	X	X	X	X		X	X	X
Mali 2001	X	X	X	X		X	X	X
Mauritania 2000-01	X	X	X	X		X	X	X
Eritrea 2002	X	X	X	X		X	X	X

The team found 2,391 women (some dropped out) who participated in both surveys and who were asked the same question in each survey, "Are you circumcised?" Fifteen percent of the women gave different answers to the question in the two surveys (Jackson et al., 2003). Although these results suggest that in some cases, women may not be certain of their circumcision status, we would expect to find only a small proportion in this category.

In column 4 of Table 3.1, "support for FGC" refers to responses to the question, "Do you think FGC should continue or be stopped?" Before 1999, those who said it should continue were then asked why FGC should be continued, while those who said it should be stopped were asked why it should be stopped. Column 6, "benefits of FGC," refers to two questions asked about the advantages of being circumcised and of not being circumcised. Column 7, "required by religion," refers to a question asking whether FGC is required by their religion. The last column, "medical problems," refers to any question about health or medical complications or consequences after the circumcision of the respondent or her daughter.

Knowing the age at which most girls are cut provides some indication about the nature of the circumcision event.

3.4 Respondents' Accounts of the Circumcision Event

In most DHS surveys, respondents who have been circumcised are asked about three aspects of the event: their age at the time, what was done to them, and what type of person performed the operation. The Egypt 2000 survey did not ask about the experience of respondents, but it did ask detailed questions about the FGC experience of one of the respondent's daughters. Information about these aspects is critical in judging the scope and nature of a circumcision event. The two columns in Table 3.1 on occurrence of FGC refer to any of the questions regarding age at the time of circumcision, the type of circumcision, and the person who performed the cutting. In Côte d'Ivoire 1994, respondents were asked only about their age at circumcision, but in most other surveys, they were also asked about what was done to them and who performed the circumcision.

Knowing the age at which most girls are cut provides some indication about the nature of the circumcision event. Compare the circumcision of a two-week-old girl at home in Eritrea with the experience of a 15-year-old girl in northern Guinea, who is circumcised with a group of girls, in a ritual that functions as a precursor to marriage. The two events differ substantially in terms of individual participation, social significance, and the relationships of the people involved.

3.4.1 Approaches to Asking about the Type of FGC

Knowing what was done to a girl or woman at circumcision is useful for anticipating possible health consequences in the short and long term—consequences that may range from psychological distress to death. It is logical to assume that both the frequency and severity of health complications after FGC are a function of the extent of the cutting and the circumstances of the event, but reliable data on this are not available. There is evidence that the more severe types of cutting are associated with higher risk of complications (Obermeyer, 1999).

Survey research is confronted with two major challenges to determining what was done during circumcision: one of recall and one of type equivalence. First, in asking women age 15-49 about an event that may have occurred 20 years ago, it is not clear to what extent they are able to recall the nature of the operation. Some women may have never known what was done to them (c.f. Snow et al., 2002), and others may

well have forgotten. Second, each society has its own language and ways of classifying types of cutting that are known to members, types that do not necessarily correspond to the WHO designations. Establishing equivalence between such locally defined types and those proposed as guidelines by WHO is not a simple matter. Most DHS surveys followed the question about circumcision status with questions about the respondent's own FGC experience, including age at the time, the type of FGC, and who performed the operation. The DHS questionnaire used the WHO types as a guideline and sought to determine which of three types of cutting a woman had undergone: clitoridectomy, excision, or infibulation.

DHS has used several approaches to asking about the type of circumcision to which the respondent was subjected.

> **Approach #1 (Set list of precoded responses):** Ask respondents what was done to them and have them choose one of three types of FGC: clitoridectomy, excision, or infibulation.
> [Six surveys: Eritrea 1995, Tanzania 1996, Mali 1995-96, Niger 1998, Nigeria 1999, and Burkina Faso 1998-99]

This approach (asking respondents to choose one of three types of FGC) has produced a useful distribution in the six surveys that have used it. For example, the proportion of respondents in the three categories varies by ethnic group, suggesting that the categories are meaningful. The validity of this question, however, depends on two factors: 1) the extent to which equivalent terms or descriptive phrases are found in the local language and 2) the extent to which women know and can accurately recall what was done to them years before. In this approach, the respondent interprets the question and responds based on a list of precoded responses.

> **Approach #2 (Classification into types):** Ask respondents to name or describe what was done to them and later try to classify the labels into the three WHO types: clitoridectomy, excision, or infibulation.
> [Two surveys: Côte d'Ivoire 1998-99 and Niger 1998]

In these two surveys in West Africa, respondents were asked to describe what had been done to them, and interviewers wrote down their responses. An attempt was then made to classify the terms and descriptions into the WHO types. In Niger that strategy produced satisfactory results, but in Côte d'Ivoire the analysts did not sort the responses into the three main types. Instead, they identified only the proportion of circumcisions that included infibulation. In this approach the analysts are responsible for interpreting and classifying information.

> **Approach #3 (Monitoring infibulation):** Ask directly if any flesh was cut away and then, separately, if the vaginal opening was sewn shut.
> [Four surveys: Mali 2001, Benin 2001, Mauritania 2000-01, and Eritrea 2000-02]

In 2000, an approach was adopted that seeks to identify only cases of the extreme, from symbolic cuts to infibulation.

In 2000, this approach was adopted and became part of the standard FGC module designed to be used in any country that asks FGC questions. It was decided that efforts to classify FGC into three or more types was not producing valid results and

that surveys should seek to identify only the extreme cases: symbolic cuts and infibulation. This strategy requires three questions:

- Was any flesh removed from the genital area?
- Was the genital area just nicked without removing any flesh?
- Was your genital area sewn shut?

Answers to the second and third questions indicate the percentage of women who experienced only a symbolic cut (just nicked) and the percentage who were infibulated (sewn shut). The two categories other than infibulation (clitoridectomy and excision) in the list of precoded responses do not correspond well to the two phrases now used to describe cutting ("having flesh removed" versus being "merely nicked"), because both clitoridectomy and excision involve the removal of flesh. Therefore, asking about the removal of flesh provides an estimate of infibulation but does not provide any information about clitoridectomy or excision.

Approach #1 (list of precoded responses) and Approach #3 (monitoring infibulation) can be compared in two countries (Eritrea and Mali). The first strategy was used in the first survey in each country: respondents were asked to choose the response that described their experience with FGC. The third strategy (were you "sewn shut?") was used in the second survey five to six years later. The first strategy indicated that the proportion of women who were infibulated in Eritrea was 34 percent in 1995; the third strategy gave a percentage of 39 percent for infibulation in 2002. In Mali the proportion infibulated was 0.5 percent in 1995 (strategy 1) and 2 percent in 2001 (strategy 3). In the two countries, the rates of infibulation were similar for the two strategies, but the infibulation rates were slightly higher in both countries when respondents were asked whether they had been "sewn shut." The fact that the two methods of asking about infibulation produced similar results in countries with a high (Eritrea) and a low (Mali) proportion of women infibulated suggests that both measures are valid.

One other approach deserves mention, even though it was applied only in the 1999 survey in Guinea (Direction Nationale de la Statistique and Macro International Inc., 2000). Just prior to implementation of the Guinea survey, Macro directed a formative study on the experience of women with FGC in the four main regions and languages of the country. The stories women told of their own experiences and the terms used to describe what had been done were used in the precoded responses to the general question, "What was done to you?" The study found that there were four types of FGC practiced in Guinea (besides infibulation, which is rare in Guinea), including a token nicking that draws a little blood. The DHS data showed that these four types varied systematically by ethnic group and by age group, allowing for a more detailed analysis of the occurrence of FGC in Guinea than in other countries.

3.4.2 Identity of the Person Performing the FGC

Identifying the person who does the cutting during FGC helps in understanding the context of the practice. When medical personnel do the cutting the operation is more likely to be hygienic, with less risk of infection than when traditional practitioners do the cutting. Medical personnel typically do the cutting at a health center or in a home, often with an anesthetic, while traditional practitioners most often operate in

the bush or in their home. The instruments used by and traditional practitioners also differ. Thus, it is important to determine the type of person who performed the FGC.

In 16 of the 20 DHS surveys, respondents were asked who performed the circumcision. The question was asked in roughly the same way in all of the surveys. In three surveys (Egypt 2000, Ethiopia 2000, and Yemen 1997), respondents were not asked that question about themselves, but they were asked about who did the cutting on their circumcised daughter(s). The precoded answers in most DHS surveys included doctors, nurses, trained midwives, traditional birth attendants (TBAs), traditional practitioners, and "others." In most cases there is also a code for "don't know."

3.5 Respondents' Accounts of Daughter's Circumcision

DHS surveys with FGC questions have asked about the circumcision of daughters in two ways. Until 1999, respondents who had at least one living daughter were asked whether their eldest daughter had been circumcised, and those who said "yes" were asked about the events surrounding the circumcision. Respondents who said "no" were asked whether they intended to have their daughter cut. Beginning in 1999, rather than asking about the eldest daughter, DHS surveys began asking respondents whether any of their daughters were circumcised. Those who said "no" were asked whether they intended to circumcise any daughters, and then they were asked about their individual perceptions of FGC. Those who said "yes" were then asked "How many?" and then they were asked about the circumcision experience of the daughter most recently circumcised. In most cases the same questions—age, type of FGC, and practitioner—that were asked about the respondent's FGC experience were asked about the daughter's experience as well. Only the earliest DHS surveys with FGC questions (Sudan 1989-90, Côte d'Ivoire 1994, and CAR 1995-94) failed to ask questions about the daughter's experience with FGC.

A comparison of the FGC experience of mothers and daughters allows researchers to examine trends over time.

The current strategy of asking about daughters provides the percentage of respondents who had at least one daughter circumcised, the proportion of respondents who had none circumcised, and the number of daughters circumcised for each respondent. DHS tables show the proportion of respondents who had at least one daughter circumcised as well as the proportion whose daughters were not cut. Although not often calculated, it would be possible to estimate the proportion of daughters circumcised for each respondent from DHS data. FGC prevalence for daughters could be compared with that for respondents to check for trends over time, with the understanding that a certain number of daughters might still be circumcised. The effect of future cutting can be offset by limiting the age of daughters considered.

Survey data on the type of circumcision undergone by the daughter are considered more reliable than the same information for the respondent, because the events in question occurred more recently and the mother is assumed to have played a major role in her daughter's circumcision. Asking about the daughter most recently circumcised provides data on a more recent FGC event than that of the respondent. In fact, in a few surveys, questions about circumcision were only asked for daughters. Table 3.2 shows which surveys asked about a daughter and the criteria for the choice of daughter asked about. The surveys in Egypt 1995 and Yemen 1997 also asked about the most recently circumcised daughter rather than the eldest daughter.

The survey in Sudan was slightly different from the rest because interviewers asked each respondent with one or more living daughters whether all of her daughters had

been circumcised. Despite this difference, the answers were coded in a way that made it possible to calculate the FGC prevalence rate for eldest daughters.

Table 3.2
Distribution of DHS surveys that included questions about FGC, according to the criteria used to identify the FGC experience of respondent's daughter, DHS surveys 1989-2002

Eldest daughter	Most recently circumcised	No daughter information
Sudan (northern) 1989-90	Egypt 1995	Côte d'Ivoire 1994
Eritrea 1995	Yemen 1997	Central African Rep. 1994-95
Mali 1995-96	Guinea 1999	
Tanzania 1996	Egypt 2000	
Niger 1998	Ethiopia 2000	
Kenya 1998	Benin 2001	
Nigeria 1999	Mali 2001	
Côte d'Ivoire 1998-99	Mauritania 2000-01	
Burkina Faso 1998-99	Eritrea 2002	

In some countries it is possible to compare mothers and daughters according to specific aspects of the FGC event: age at circumcision, type of cutting, and the person who did the cutting. A comparison of mothers and daughters with regard to these variables allows researchers to examine trends over time.

3.6 Perceptions of FGC

Nearly all DHS surveys with FGC questions have asked about individual perceptions or opinions related to the practice of FGC. All surveys except for Côte d'Ivoire 1994 and Tanzania 1996 asked respondents whether they thought FGC should continue or be stopped. This question is referred to in the text as the "support" question. In the 1990s this question was placed right after the series of questions about the daughter and at the beginning of the questions on perception and opinion. Those who said FGC should continue were asked why it should continue, and those who said it should be stopped were asked why it should be stopped.

In early 1999 DHS revised the FGC module and changed the series of questions about perceptions of FGC so the support question came toward the end of the module. In fact, two changes were made: the wording of questions that followed those inquiring about the daughter's circumcision, and the position of the question on support of FGC. Surveys conducted from late 1999 on (Benin 2001, Egypt 2000, Eritrea 2002, Guinea 1999, Mali 2001, Mauritania 2000-01) asked about health complications of a daughter's circumcision, the advantages of being circumcised, and the advantages of not being circumcised. Finally, after one or two other questions about perceptions of FGC, the respondent was asked the question on support for FGC. It is not possible to tell if the different positions of the support question in the questionnaire have affected respondent answers. Further fieldwork would be required to determine if this was the case.

Nearly all DHS surveys with FGC questions have asked about individual perceptions or opinions related to the practice of FGC.

No matter where the question about support for FGC is positioned, ambiguities remain about how to interpret responses. In the survey context, which includes many yes/no questions and precoded answers, what significance should be attached to a woman's response that she would like FGC to stop? Once it is known what proportion of women said "Yes, FGC should continue," what does this tell us about the situation of FGC in that country? Will those who say the practice should end not circumcise their daughters? Will those who say FGC should continue be sure to have

their daughters circumcised? What is the relationship between the proportion of women who say FGC should continue and the national prevalence rate? These are not easy questions to answer.

In her study of FGC in Mali in 1997-98, Claudie Gosselin interviewed 223 women in four regional capitals about a variety of subjects. These women were asked whether they supported the practice of FGC. Because the question was open-ended, the women were able to respond in many more ways than simply "yes" or "no." Gosselin found that while a minority of women actively supported FGC, the majority were either indifferent or had never thought that not being circumcised was an option, or would not dare question the elders' authority (Gosselin, 2000). Gosselin also noted that while the 1995-96 Mali DHS survey found that 75 percent of women reported wanting FGC to continue, that responses varied by level of education and urban-rural residence. These findings suggest that survey results based on yes/no responses to the FGC support question should be viewed with caution because the answer, "I think FGC should continue," may have different meanings for different respondents.

Nevertheless, the responses to this question do add to our understanding of the situation of FGC in specific countries. A declaration of support will likely be related to overall FGC prevalence and to the proportion of women who have at least one daughter circumcised. We would logically expect that most circumcised women will express support for FGC, and the data bear this out. However, because the question about FGC support is a normative one—and some respondents may say that they do not support FGC because of what they have heard in the media—we would expect that the proportion of women who support the continuation of FGC would be less than the overall prevalence rate.

In four countries, comparable FGC data are available for two periods, allowing an examination of changes over time. From 1995 to 2002 in Eritrea, FGC prevalence dropped six percentage points (95 to 89 percent), and declarations of support dropped eight percentage points (57 to 49 percent). From 1995 to 2000 in Egypt, overall prevalence remained the same at 97 percent, whereas the statements of support dropped seven percentage points (82 to 75 percent). In Côte d'Ivoire, prevalence remained about the same in the two surveys (about 45 percent in 1994 and 1998-99). In Mali, the proportion in favor of FGC continuing was 75 percent in 1995-96 but increased to 80 percent in 2001, whereas FGC prevalence remained about the same (94 and 92 percent).

Why would overall prevalence remain about the same in Mali while stated support for FGC increased in a five-year time period? Hypothetically, it is possible that some aspect of the anti-FGC campaign had the effect of getting more people to say they supported the tradition. However, it may also be that a shift in the position of the question in the questionnaire was the cause. In 1995, the question about FGC support followed a series of questions about the circumcision of the eldest daughter, whereas in 2001 the question followed a series of questions about the advantages of a girl being circumcised or not being circumcised, plus one question about whether FGC was required by religion.

It is assumed that there is a relationship between the expression of support for or against FGC and whether or not a woman has a circumcised daughter. It is expected that the majority of women who support the continuation of FGC will have one or more of their daughters circumcised, and that most of those who want to stop the

practice will not have their daughters circumcised. The relationship will be examined in the next chapter.

Asking about the benefits and drawbacks of FGC provides answers that are somewhat more specific than asking why FGC should continue or be stopped, but the questions remain somewhat abstract. In addition, it is highly unlikely that respondents had ever heard these questions before. However, it does seem productive to ask respondents whether they want the practice of FGC to continue, since it makes possible the tracking of changes in the percentage of those who declare their support for FGC.

In the surveys in which men were asked their opinions about FGC, a higher proportion of men than women said they thought FGC should be stopped.

Finally, a small number of questions were asked of men about their opinions of FGC in Eritrea in 1995 and in seven countries in West Africa (Benin 2001, Burkina Faso 1998-1999, Côte d'Ivoire 1998-99, Guinea 1999, Mali 2001, Mauritania 2000-01, and Niger 1998). Men were asked about the advantages to women of having FGC, as well as the advantages of not having FGC, and whether they thought that FGC should continue or be stopped. In the surveys in which men were asked their opinions about FGC, a higher proportion of men than women said they thought FGC should be stopped (see Table 4.16). In several countries men were also asked whether their religion required FGC and whether they thought that FGC reduces the chances of sexual intercourse before marriage. In Guinea, where FGC was nearly universal in 1999, men were also asked whether they prefer to marry a circumcised woman or an uncircumcised woman, or whether it made no difference. One-third of the men interviewed said that they preferred to marry an uncircumcised woman or that it made no difference to them.

4

Discussion of FGC in DHS Survey Reports

In surveys that have used the FGC module as part of the Women's Questionnaire, the final report includes a separate section on FGC data (Ethiopia excepted). This chapter compares the key findings from those surveys. The main topics covered are national prevalence rates, the distribution of FGC within countries, the circumstances of the event of circumcision for respondents and their daughters, and respondents' opinions and perceptions of FGC as a practice. It is hoped that some of the comparisons presented here, as well as descriptions of the distribution of FGC within countries, will generate questions for further analysis in specific countries.

4.1 National Rates of FGC Prevalence

Researchers carrying out studies on FGC have long sought valid information about the proportion of girls or women circumcised in a given country and the distribution of circumcised women within regions or countries. Valid data on the occurrence and circumstances of FGC (who, when, how many) at a national or a regional level can serve many purposes: show how the practice is distributed; suggest associations with language, ethnicity, or other background characteristics; estimate the numbers of girls or women at risk in a given region; and facilitate the monitoring of trends over time. Data on a respondent's own experience of FGC (e.g., age, type of FGC, instrument used, place where circumcision was carried out, and the person who performed the circumcision) can provide information on changes in the practice as well as allow some assessment of the likely health consequences. However, FGC prevalence at the country level is the key statistic sought by researchers and program specialists.

The prevalence of FGC at the national level is important for estimating the size and scope of the practice in a country and for calculating the number of women circumcised annually.

The prevalence of FGC at the national level is important for estimating the size and scope of the practice in a country and for calculating the number of women circumcised annually. Table 4.1 shows the countries for which prevalence data are available at the national level (Sudan excepted) from a DHS survey. Since the countries are arranged by geographic regions, certain regional similarities are apparent. The sample (women age 15-49) for each survey is the number of women interviewed. In Egypt (1995 and 2000), Sudan, and Yemen, the sample included only ever-married women age 15-49, whereas in other surveys the sample was all women age 15-49.

The grouping of countries on the African continent reveals basic similarities by region in the overall prevalence of FGC. In northeastern Africa, prevalence varies from 80 to 97 percent. In northern West Africa, prevalence varies from 71 percent (Mauritania) to 99 percent (Guinea), with the exception of Niger (5 percent). In southern West Africa prevalence ranges from 17 percent (Benin) to 45 percent (Côte d'Ivoire). Prevalence for the two countries in eastern Africa (Kenya and Tanzania) is 38 and 18 percent, respectively.

Table 4.1
Prevalence of FGC among women in DHS surveys by region, 1989-2002

Region/country	Year	Prevalence	Sample
Northeastern Africa			
Egypt[1]	1995	97	14,779
Egypt[1]	2000	97	15,573
Eritrea	1995	95	5,054
Eritrea	2001-02	89	8,754
Sudan (northern)[1]	1989-90	89	5,860
Ethiopia	2000	80	15,367
Northern West Africa			
Guinea	1999	99	6,753
Mali	1995-96	94	9,704
Mali	2001	92	12,849
Burkina Faso	1998-99	72	6,445
Mauritania	2000-01	71	7,728
Niger	1998	5	7,577
Southern West Africa/ Middle Africa			
Côte d'Ivoire	1994	43	8,099
Côte d'Ivoire	1998-99	45	3,040
Central African Rep.	1994-95	43	5,884
Nigeria	1999	25	8,206
Benin	2001	17	6,219
Eastern Africa			
Kenya	1998	38	7,881
Tanzania	1996	18	8,120
Western Asia			
Yemen[1]	1997	23	10,414

[1] Sample consisted of ever-married women

In five countries—Egypt, Eritrea, Sudan (northern), Guinea, and Mali—the practice of FGC is nearly universal, with prevalence ranging from 89 to 99 percent. In the countries of southern West Africa and the two countries in eastern Africa, FGC affects only a minority of the population.

4.2 Disaggregation of Data in Country Reports

DHS country reports present data on the prevalence of FGC at a national level disaggregated by standard demographic variables: age, urban-rural residence, and region or province. Many reports also show differentials by education, ethnicity, and religion. The education level of respondents is normally given in three categories: no education, primary, and secondary or higher. Ethnicity is sometimes expressed as specific named ethnic groups (e.g., Kikuyu, Bambara, Yoruba) and sometimes as larger groupings (e.g., Mandé du Nord). Religious affiliation is classified into the categories Muslim, Christian, animist, and no religion. In some countries, "Christian" is broken down further into "Catholic" and "Protestant."

Table 4.2 shows the variables used to disaggregate prevalence data from the 20 surveys being examined. In countries with very high FGC prevalence (90 percent or more), disaggregation of the data by demographic variables shows little variation throughout the country. However, in countries where a substantial portion of the population does not practice FGC, prevalence varies widely and can be better understood by examining data disaggregated by sociodemographc variables.

Table 4.2
Sociodemographic variables used for disaggregation of FGC prevalence data in DHS surveys, 1989-2002

Region/country	Age group	Urban-rural	Regions	Education	Religion	Ethnicity
Northeastern Africa						
Egypt 1995	X	X	X	X		
Egypt 2000	X	X	X	X		
Eritrea 1995	X	X	X			
Eritrea 2002	X	X	X			
Sudan (northern) 1989-90	X	X	X		X	
Ethiopia 2000	X	X	X	X		
Northern West Africa						
Guinea 1999	X	X	X	X	X	X
Mali 1995-96	X	X	X	X	X	X
Mali 2001	X	X	X	X	X	X
Burkina Faso 1998-99	X	X	X	X	X	X
Mauritania 2000-01	X	X	X	X		
Niger 1998	X	X		X	X	X
Southern West Africa/ Middle Africa						
Côte d'Ivoire 1994	X	X	X	X	X	
Côte d'Ivoire 1998-99	X	X		X	X	X
CAR 1994-95	X	X	X	X		X
Nigeria 1999	X	X	X	X		
Benin 2001	X	X	X	X		X
Eastern Africa						
Kenya 1998	X	X		X		X
Tanzania 1996	X	X	X			
Western Asia						
Yemen 1997	X	X	X	X		

4.2.1 FGC Prevalence by Age and Residence

DHS final reports provide FGC prevalence disaggregated by age and area of residence (urban-rural) of respondents; prevalence is also presented by region in all but three surveys. It was expected that a higher proportion of women in the oldest cohorts than in the youngest cohorts would have been circumcised, and that FGC prevalence would be higher in rural than in urban areas. In fact, while FGC prevalence is higher in rural areas for more than half of the surveys, in three surveys (Eritrea 1995, Ethiopia 2000, and Mali 2001) urban and rural rates are either the same or differ only slightly. Furthermore, in four countries, FGC prevalence was substantially higher in urban than in rural areas: northern Sudan, Burkina Faso, Nigeria, and Yemen. In these cases, the confounding effect of ethnicity most likely explains the higher FGC rates in urban areas.

In most cases where the data show regional differences in FGC prevalence, the differentials can be explained by confounding factors such as ethnicity and religion.

4.2.2 FGC Prevalence by Region

In most surveys, data on FGC prevalence are presented by region to be more useful to government and program personnel. FGC prevalence may vary by region in cases where anti-FGC programs have been conducted in selected regions or where ethnic identity varies with regional populations. In most cases where the data show regional differences in FGC prevalence, the differentials can be explained by confounding factors such as ethnicity and religion. In countries where the data are not disaggregated

by ethnicity, regional comparisons may reveal differences in FGC prevalence that derive from ethnic differences in regional populations.

4.2.3 FGC Prevalence by Education

The majority of DHS survey reports (16 of 20) present FGC prevalence by respondent's level of education, along with a number of other sociodemographic variables. The underlying assumption in relating FGC status to education is that women with more education will be less likely to favor the practice FGC than those with little or no education. At first, it seems reasonable to present FGC prevalence by education because women's education has been associated with many outcome variables related to health and well-being. However, in the case of FGC, it was found that disaggregation by level of education is not helpful, and can actually be misleading. This is because circumcision nearly always takes place before a woman's education is completed, and often before it commences. The presentation of FGC prevalence data by level of education implies that there is a link between FGC status and education, even when there is none.

The data point to a strong relationship between the educational level of a mother and the likelihood that her daughter is circumcised.

The assumption of a relationship between FGC status and the effects of education can however be examined by comparing the educational level of mothers and the circumcision status of their daughters; that is, if the relationship is valid, highly educated mothers will be less likely to have circumcised daughters than will mothers with little education. In fact, the data point to a strong relationship between the educational level of a mother and the likelihood that her daughter is circumcised.

Table 4.3 shows the distribution of FGC prevalence rates for eldest daughters in eight countries by mother's level of education. In most countries there was a substantial difference in the proportion of eldest daughters circumcised among women with no education and among women with at least some secondary schooling. No consistent relationship is evident for Mali 1995-96 or for Nigeria 1999. The lack of a relationship in Nigeria may be due to the confounding factor of ethnicity, because FGC is practiced by Yoruba groups, who are also more likely to be educated. The lack of association in Mali 1995-96 may be related to the overall low level of education in the country—81 percent of respondents had never been to school, and only 7 percent had at least some secondary education.

Table 4.3
Among women with at least one living daughter, the percentage of eldest daughters circumcised, by mother's education, DHS surveys 1989-1999

Survey	Prevalence of FGC among eldest daughters by mother's education			Total	Number of mothers
	No education	Primary	Secondary		
Eritrea 1995	73.7	64.7	59.9	71.4	2,005
Sudan (northern) 1989-90	62.7	57.2	30.5	57.7	4,386
Mali 1995-96	73.6	73.6	75.0	73.6	6,399
Burkina Faso 1998-99	47.3	35.1	16.1	45.5	3,499
Niger 1998	16.3	6.7	2.2	14.2	1,348
Côte d'Ivoire 1998-99	36.0	9.3	3.9	25.8	1,595
Nigeria 1999	14.6	29.2	23.3	20.2	4,503
Kenya 1998	23.2	10.4	5.8	11.3	4,554
Tanzania 1996	10.7	4.8	0.5	6.7	4,753

Table 4.4 shows the association between a respondent's level of education and her having one or more daughters circumcised. The question used to generate the data in this table was "Have any of your daughters been circumcised?" The data in Table 4.4 are similar but not equivalent to the data in Table 4.3 because asking about "any of your daughters" may involve more daughters for a mother than asking about only the "eldest daughter." The actual prevalence rate among living daughters of respondents in the sample will be slightly lower than the figures found in Table 4.4, because some of the youngest daughters may get cut later. However, it should not affect the direction of the association between mother's education and the circumcision of daughters.

Table 4.4
Among women with at least one living daughter, the percentage who had at least one daughter circumcised, by mother's education, DHS surveys 1995-2002

Survey	Prevalence of FGC among daughters, by mother's education			Total	Number of mothers
	No education	Primary	Secondary		
Egypt 1995	59.5	60.5	22.1	49.7	10,840
Egypt 2000	64.7	62.6	21.2	49.5	11,540
Eritrea 2002	67.5	59.4	40.0	62.5	4,604
Ethiopia 2000	55.7	35.4	25.4	51.8	7,659
Guinea 1999	54.7	44.0	55.1	53.9	4,275
Mali 2001	73.1	73.9	64.8	72.8	8,094
Mauritania 2000-01	77.4	60.6	41.1	70.9	3,606
Benin 2001	11.1	2.5	0.7	8.2	2,759
Yemen 1997	41.4	23.9	29.0	38.3	4,032

Only in Guinea is there no relationship between the circumcision of daughters and mother's level of education. In Guinea, 76 percent of respondents had no education, and 5 percent had some secondary schooling or higher. Overall, it can be seen that daughters of mothers who are more highly educated are less likely to be circumcised than daughters of mothers with little or no education. This relationship was found in 15 of the 18 surveys where data were available.

4.2.4 FGC Prevalence and Religion

Religious affiliation may help explain the distribution of FGC in some countries, but the relationship is not consistent. In the country reports, FGC prevalence rates are disaggregated by religion in 6 of the 16 countries (8 of 20 surveys), all countries with a large Muslim majority and, except for Sudan (northern), all located in West Africa. Table 4.5 shows the prevalence of FGC by religion (Muslim or Christian) for those eight surveys. Data on FGC prevalence and religion for the other surveys are presented in textual rather than in tabular form.

Table 4.5
FGC prevalence among women by religion (Muslim or Christian), DHS surveys 1989-2001

Region/country	Muslim	Christian	Total
Northeastern Africa			
Sudan (northern) 1989-90	90.0	46.8	89.2
Northern West Africa			
Guinea 1999	99.4	93.8	98.6
Mali 1995-96	94.3	84.6	93.7
Mali 2001	91.9	75.5	91.6
Burkina Faso 1998-99	77.9	66.0	71.6
Niger 1998	4.5	(0)[a]	4.5
Southern West Africa/ Middle Africa			
Côte d'Ivoire 1994	80.1	16.0	42.7
Côte d'Ivoire 1998-99	78.7	17.0	44.5

[a] Only four cases

Religious affiliation may help explain the distribution of FGC in some countries, but the relationship is not consistent.

In countries, such as Sudan (northern) and Niger, which have a 98 to 99 percent Muslim population, whether the rest of the religions participate in FGC or not, hardly affects the overall prevalence. However, in Burkina Faso and Côte d'Ivoire, the size of the Christian population is large enough to affect the overall prevalence of FGC. In Burkina Faso, 27 percent of the population is Christian, while in Côte d'Ivoire, the proportion is 41 percent. At the same time, there is a marked contrast in the prevalence of FGC among Christians in Burkina Faso and Côte d'Ivoire (66 and 17 percent, respectively).

A somewhat different pattern emerges from data for countries that do not report FGC prevalence by religion in their reports. For example, Ethiopia—with a population 51 percent Coptic Orthodox, 29 percent Muslim, and 16 percent Protestant—shows little difference in FGC prevalence by religion. If the missing cases (N=1,252) are set aside, 86 percent of the Orthodox, 93 percent of Muslims, and 81 percent of Protestants have been circumcised. In Benin, 32 percent of the population is Catholic, 22 percent is Muslim, 17 percent is "other Christian" (non-Catholic or Protestant), and 17 percent follows traditional religion; the FGC prevalence rates for these groups were 49 percent for Muslims, 12 percent for traditional religion, 7 percent for Catholics, and 1 percent for "other Christians." The fact that 89 percent of Fulani (Peulh) women are circumcised, and they are Muslim, affects the overall rate of Islamic groups in the country.

In Nigeria, the relationship between Islam and FGC differs from that of other countries because the majority of Muslims there do not practice circumcision. In the 1999 survey, 15 percent of Muslim respondents had been circumcised, whereas the

figure for various Christian groups was around 40 percent. Much of this distribution can be explained by ethnic identity, but the relevant evidence is not available in the data set. FGC prevalence data are available by regions in Nigeria: 2 percent in the northeast and 3 percent in the northwest, both largely Islamic regions; the southeast and southwest regions have prevalence rates of 37 and 48 percent, respectively.

It is not possible to generalize about the association between religion and the practice of FGC except to say that in the majority of countries Muslims are more likely to practice FGC than Christians, and ethnicity confounds efforts to examine the role religion plays in FGC prevalence.

In the majority of countries, Muslims are more likely to practice FGC than Christians, however, ethnicity confounds efforts to identify the role that religion plays.

4.2.5 FGC Prevalence and Ethnicity

FGC prevalence rates are available by ethnic group in the DHS reports for 9 of the 20 surveys in 7 of the 16 countries, all in West Africa with the exception of Kenya. DHS prevalence rates vary more by ethnicity than by any other social or demographic variable. This finding is not surprising because many researchers have noted that FGC prevalence varies with ethnicity or that FGC serves as an ethnic marker (e.g., Shell-Duncan and Hernlund, 2000; Gruenbaum, 2001). Although most surveys asked questions about ethnic identity, some countries have chosen not to include that variable in the data set.

Table 4.6 shows the range of FGC prevalence among ethnic groups in eight countries, using three ethnic groups with the highest prevalence and two ethnic groups with the lowest prevalence. For example, in Ethiopia FGC prevalence ranges from 51 to 100 percent, in Mali from 15 to 98 percent, and in Kenya from 1 to 97 percent. The table shows data for FGC prevalence in 8 of the 16 countries. Indirect evidence for similar ethnic variations is available for four other countries (Sudan (northern), Nigeria, Tanzania, and Yemen).

Table 4.6
Range of FGC prevalence among ethnic groups in eight DHS surveys, 1998-2001

Region/country	Highest groups			Lowest groups	
Northern West Africa					
Guinea 1999	99.7	99.6	99.5	99.4	89.0
Mali 2001	98.0	97.9	97.2	40.8	15.3
Burkina Faso 1998-99	92.6	90.1	89.3	47.8	46.4
Niger 1998	30.4	13.4	8.6	1.5	1.1
Southern West Africa/ Middle Africa					
Côte d'Ivoire 1998-99	74.7	74.6	69.6	13.4	2.0
CAR 1994-95	83.9	71.0	42.0	5.6	3.0
Benin 2001	88.4	77.4	72.0	0.3	0.0
Eastern Africa					
Kenya 1998	97.0	88.8	54.2	1.6	1.2

Despite such contrasts in prevalence within countries, it should be remembered that ethnic identity is but one of a number of factors that structure social relations and distribute power and privilege among groups.

Table 4.7 shows how FGC prevalence varies by ethnicity in four countries: Burkina Faso, Côte d'Ivoire, Benin, and Kenya. The countries were selected because they exemplify variations in FGC prevalence by ethnicity in countries with different levels of overall FGC prevalence.

In countries such as Côte d'Ivoire, Benin, and Kenya, some ethnic groups rarely or never practice FGC. Girls growing up in these groups are at little risk for being circumcised, whatever the national prevalence level. In Burkina Faso, a substantial segment of the population of most ethnic groups practices FGC. Interventions that seek to persuade people to abandon the practice of FGC will need to vary depending on the target population.

Interventions that seek to persuade people to abandon the practice of FGC will need to vary depending on the target population.

Table 4.7
FGC prevalence among women in specific ethnic groups in four DHS surveys 1998-2001

Country/region	Percentage with FGC	Number of women
Burkina Faso 1999		
Dafing	92.6	104
Senoufo	91.2	148
Lobi	89.3	83
Dagara	86.3	79
Samo	86.9	140
Bobo	84.8	302
Bissa	74.8	224
Mossi	74.1	3,787
Fulani	68.4	417
Other	66.9	292
Gourmantché	47.8	527
Gourounsi	46.4	340
Total	71.6	6,445
Côte d'Ivoire 1998-99		
Other	74.7	676
Mandé du Nord	74.6	366
Mandé du Sud	69.6	313
Gur	66.5	442
Krou	13.4	335
Akan	2.0	907
Total	44.5	3,040
Benin 2001		
Fulani	88.4	236
Bariba	77.4	511
Yoa and Lokpa	72.0	227
Other	27.6	54
Yoruba	21.7	742
Dendi	18.8	165
Foreigners	18.7	229
Bétamaribé	7.0	320
Fon	0.3	2,797
Adja	0.0	937
Total	16.8	6,219
Kenya 1998		
Kisii	97.0	860
Masai	88.8	113
Kalenjin	62.2	992
Taita/Taveta	59.2	81
Meru/Embu	54.2	564
Kikuyu	42.5	1,414
Kamba	33.0	1,008
Other	19.2	234
Mijikenda/Swahili	12.2	391
Luhya	1.6	1,142
Luo	1.2	1,074
Total	37.6	7,881

What do leading FGC researchers say about the role of ethnicity in understanding the practice of female genital cutting? In her book on FGC and the various issues surrounding it, Ellen Gruenbaum remarks (2001:102):

> Female circumcision practices are deeply entwined with ethnic identity wherever they are found. Understanding this should provide an important insight into the tenacity of the practice and people's resistance to change efforts, and it can help to explain why the practice may even spread in certain situations.

Ethnic identity is not entirely fixed, children of parents of different ethnic groups may have a choice about the ethnic identity they affirm, and the groups identified as one single ethnic group may be an ethnic category with many subgroups. That is the situation in Côte d'Ivoire 1998-99, which lists Mandé du Nord, Mandé du Sud, and Akan as ethnic groups, when none of those labels really make up a single ethnic group. With ethnicity being flexible in some social contexts, answers to the question on ethnicity may vary.

The main purpose of presenting FGC prevalence by ethnicity is to show that prevalence can vary substantially within a country. National-level FGC prevalence rates can leave the impression that the situation is roughly the same throughout the country, when this is clearly not the case. Thus, within most countries, the social situation confronting families with young girls will vary, with some girls growing up in a context where everyone is cut and others in a context where no one is cut. As Molly Melching said in a presentation about the Tostan Project in Senegal (Melching, 2003), "We go to villages that practice FGC, not ones that don't. We all know which groups practice FGC and which do not."

The main purpose of presenting FGC prevalence by ethnicity is to show that prevalence can vary substantially within a country.

4.3 Circumstances Surrounding the Circumcision

In most countries, respondents were asked about their own experience with FGC and that of one of their daughters. The information most often sought was age at circumcision, type of cutting, and person who performed the operation.

4.3.1 Age at Circumcision

Data on age at circumcision are routinely collected for what they reveal about the FGC event and to monitor trends over time. Age at circumcision has an impact on the social significance of FGC because when girls are circumcised in the first few months of life, or even at four years of age, the ritual experience is minimal compared with that of girls cut at older ages. In contexts where the girls are 12 or 15 years of age, the event may be framed as an elaborate coming-of-age ritual (Gessain, 1960; Jackson, 1977; Kratz, 1994: Johnson, 2000).

Table 4.8 shows the percentage of respondents cut at various ages among those who were circumcised. The ages at which large proportions of girls are circumcised vary substantially among countries. About 90 percent of girls in Egypt (both surveys) were circumcised between the ages of 5 and 14 years, while in Eritrea (both surveys), Ethiopia, Mali 2001, and Mauritania, 60 percent or more of girls underwent the operation before their fifth birthday. In most other West African countries, about one-third of girls were circumcised in their first five years of life. In Kenya and Tanzania,

Table 4.8
Percent distribution of circumcised women by age when cutting occurred, DHS surveys 1989-2002

Region/country	Age when cutting occurred						
	0-4	5-9	10-14	15-19	19+	Don't know/ missing	Total
Northeastern Africa							
Egypt 1995	2.6	46.0	42.9	0.9	0.0	7.6	100.0
Egypt 2000[a]	6.2	42.2	49.8	0.5	0.0	1.3	100.0
Eritrea 1995	60.0	11.1	1.0	0.0	0.0	27.9	100.0
Eritrea 2002	75.1	15.0	1.1	0.1	0.0	8.7	100.0
Ethiopia 2000[a]	64.4	20.0	10.8	4.3	0.5	0.2	100.0
Northern West Africa							
Guinea 1999	4.2	48.1	35.2	2.8	0.5	9.2	100.0
Mali 1995-96	41.3	24.8	15.6	1.7	0.0	16.6	100.0
Mali 2001	61.3	20.5	13.1	1.4	0.0	3.7	100.0
Burkina Faso 1998-99	20.5	29.6	7.8	1.7	0.1	40.3	100.0
Mauritania 2000-01	76.3	0.7	0.2	0.1	0.0	22.7	100.0
Niger 1998	28.8	18.8	7.2	11.1	0.3	33.8	100.0
Southern West Africa/ Middle Africa							
Côte d'Ivoire 1994	24.3	27.3	27.6	10.5	0.8	9.6	100.0
Côte d'Ivoire 1998-99	55.1	17.3	18.2	6.7	1.5	1.4	100.0
CAR 1994-95	2.4	29.3	59.2	8.0	0.9	0.1	100.0
Nigeria 1999	30.8	5.0	3.6	4.0	1.9	54.6	100.0
Benin 2001	34.0	40.0	18.6	3.6	0.8	3.0	100.0
Eastern Africa							
Kenya 1998	2.7	18.9	43.1	29.7	2.2	3.5	100.0
Tanzania 1996	5.1	19.6	37.0	19.3	3.8	15.1	100.0
Western Asia							
Yemen 1997[a]	99.2	0.4	0.3	0.0	0.0	0.1	100.0

Note: Respondents were not asked about age at cutting in the Sudan survey.
[a] Information based on respondent's daughter

about 60 to 70 percent of girls were circumcised when they were age 10-19. Finally, 76 percent of girls in Yemen were circumcised during their first two weeks of life.

Table 4.9 shows the cumulative proportion of respondents circumcised by age at circumcision. Thus, in CAR 1994-95 only 2 percent of respondents were cut by age four compared with 91 percent who were cut by age 14. In Eritrea, Ethiopia, and Yemen, the majority of girls were circumcised during the first year of life, while in Kenya 78 percent were not circumcised until after age nine.

4.3.2 Type of Circumcision

Information about the type of circumcision can help anticipate the extent of medical consequences likely to follow the cutting. Data are available from six surveys about the distribution of the three main WHO types of FGC: clitoridectomy, excision, and

Table 4.9
Among circumcised women, the cumulative percent circumcised, by age when cutting occurred, DHS surveys 1989-2002

Region/country	Age when cutting occurred						
	<1	0-4	0-9	0-14	0-15+	Don't know/ missing	Total
Northeastern Africa							
Egypt 1995	0.6	2.6	48.6	91.5	92.4	7.6	100.0
Egypt 2000[a]	1.3	6.2	48.5	98.3	98.6	1.3	100.0
Eritrea 1995	44.1	60.0	71.1	72.1	72.1	27.9	100.0
Eritrea 2002	62.2	75.1	90.1	91.2	91.3	8.7	100.0
Ethiopia 2000[a]	52.5	64.1	81.2	94.7	99.4	0.6	100.0
Northern West Africa							
Guinea 1999	0.3	4.2	52.3	87.5	90.8	9.2	100.0
Mali 1995-96	28.6	41.3	66.1	81.7	83.4	16.6	100.0
Mali 2001	6.9	61.3	81.8	94.9	96.3	3.7	100.0
Burkina Faso 1998-99	10.6	20.5	50.1	57.9	59.7	40.3	100.0
Mauritania 2000-01	18.8	76.3	77.0	77.2	77.3	22.7	100.0
Niger 1998	12.5	28.8	47.6	54.8	66.2	33.8	100.0
Southern West Africa/ MiddleAfrica							
Côte d'Ivoire 1994	15.8	24.3	51.6	79.2	90.5	9.6	100.0
Côte d'Ivoire 1998-99	0.3	55.0	72.4	90.6	98.8	1.3	100.0
CAR 1994-95	0.2	2.4	31.7	90.9	99.8	0.2	100.0
Nigeria 1999	41.6	49.4	57.5	63.3	72.7	27.3	100.0
Benin 2001	0.1	34.0	74.0	92.6	96.8	3.1	100.0
East Africa							
Kenya 1998	0.0	2.7	21.6	64.7	96.6	3.5	100.0
Tanzania 1996	0.6	5.1	24.7	61.7	84.8	15.1	100.0
West Asia							
Yemen 1997	99.2	99.6	99.9	99.9	99.9	0.1	100.0

Note: Respondents were not asked about age at cutting in the Sudan survey.
[a] Circumcision of daughters, not respondents

infibulation. In five of the surveys, respondents were asked to identify—based on three categories—the type of FGC they had undergone. In Niger, women were asked to name what was done to them, and local specialists then classified their answers into the three main types of FGC. Table 4.10 presents the data.

In Niger, women were asked to name what was done to them, and local specialists then classified their answers into the three main types of FGC.

Table 4.10
Percent distribution of circumcised women by type of FGC received (prompted), DHS surveys 1995-1999

Region	Clitoridectomy	Excision	Infibulation	Other/ missing	Total	Number of women
Eritrea 1995	61.5	4.4	34.0	0.1	100.0	4,775
Mali 1995-96	52.1	46.9	0.5	0.5	100.0	9,097
Burkina Faso 1998-99	26.2	56.3	0.6	16.9	100.0	5,539
Niger 1998	66.5	4.8	0.0	28.7	100.0	340
Nigeria 1999	50.8	4.2	2.3	42.7	100.0	3,327
Tanzania 1996	56.6	35.3	5.1	3.0	100.0	1,476

Respondents in Sudan (northern) were asked to identify the type of circumcision they had undergone from a list of three categories: Pharaonic (82 percent), intermediate (3 percent), or *sunna* (15 percent). The categories correspond closely to the WHO types used in many surveys: Pharaonic as infibulation, intermediate as excision, and *sunna* as clitoridectomy. Sudan (northern) showed a high rate of infibulation (82 percent), far higher than that of any other country for which DHS data are available. During the 1998-99 survey in the Côte d'Ivoire, respondents were asked what was done to them, but the answers were never classified into discrete categories.

The term *sunna,* from the Arabic, refers to an obligation or requirement of the Muslim religion, as interpreted by local populations, to circumcise in a particular way. However, opinion as to what constitutes *sunna* FGC varies among countries. For example, in Sosso society in Guinea, *sunna* refers to the circumcision the Sosso believe is required by Islam, which for them means excision: removal of the clitoris and labia minor (Yoder et al., 1999). In Chad, *sunna* refers to a partial clitoridectomy (Leonard, 2000).

Table 4.10 shows the large proportion of women in Eritrea who have been infibulated and the small proportions elsewhere. However, there are problems with such data on the type of FGC. First, it is difficult to know to what extent the respondent understood what was being asked when the types were identified. If there happened to be close correspondence between the three types of FGC and three local terms for FGC, the data may reflect the situation on the ground. If, however, there was no close correspondence between the types of FGC and local terminology, it may be difficult to determine how closely responses to questions relate to women's experiences. Several studies mentioned in chapter 2 examined the degree of correspondence between women's reports and a gynecological examination, but the correspondence reported just involved whether or not the respondent was circumcised. Nothing was said about correspondence between the type of FGC reported and the type observed. Additionally, large numbers of the responses are listed as "other" or "missing." In Nigeria this situation is likely due to problems with data collection. In Niger, it reflects difficulty in classifying what women said was done to them.

The rate of infibulation was lower in Eritrea and Mali in the earlier surveys, indicating that the practice has increased in recent years.

Respondents were not asked about the type of circumcision for themselves or their daughters in the other DHS surveys. In three surveys (Eritrea 2002, Mali 2001, and Benin 2001), respondents were asked whether the vaginal area had been sewn shut. Assuming that "yes" indicates infibulation, the percentage of women with infibulation (among whose who were circumcised) was 39 percent in Eritrea 2002, 2 percent in Mali 2001, and 4 percent in Benin 2001. The rate of infibulation was lower in Eritrea and Mali in the earlier surveys (Table 4.10).

The practice of infibulation affects a large proportion of women in two countries where DHS surveys have been conducted: Eritrea, where 39 percent of circumcised women have been infibulated, according to the 2002 survey, and Sudan (northern), where 82 percent of women have been infibulated, according to the 1989-90 survey.

4.3.3 Identity of Person Who Performed FGC

In nearly all surveys, DHS collected data on the type of practitioner who performed the circumcision, because the identity of the practitioner is a critical part of understanding how FGC is practiced. Table 4.11 shows the proportion of women circumcised by a traditional practitioner and the percentage circumcised by medical personnel. The term *traditional* includes local specialists known for performing

circumcisions (*exciseuses*), traditional birth attendants, and older women without further designation. The term *medical* refers to doctors, nurses, and certified midwives. The term *other* refers to any other response plus the missing answers.

Table 4.11 shows that in most countries, the large majority of women are circumcised by traditional practitioners, most often older women known to be specialists in circumcision. Medical personnel are involved in the practice of FGC in only a few countries. The highest rate for use of medical personnel for FGC was found in Egypt (61 percent), with relatively high rates in northern Sudan (36 percent) and Kenya (34 percent). In Guinea, Nigeria, and Yemen, from 9 to 13 percent of circumcisions are carried out by medical personnel.

Table 4.11
Percent distribution of circumcised women by person who did the cutting (traditional practitioner or medical personnel), DHS surveys 1989-2002

Survey	Traditional practitioner	Medical personnel	Don't know	Other	Total	Number of women
Northeastern Africa						
Egypt 1995	79.6	17.3	1.7	1.4	100.0	14,330
Egypt 2000[a]	38.3	61.4	0.3	u	100.0	5,709
Eritrea 1995	95.0	0.2	4.8	u	100.0	4,775
Eritrea 2002	92.2	0.6	4.9	2.3	100.0	7,765
Sudan (northern) 1989-90	63.9	35.6	0.2	0.3	100.0	5,226
Ethiopia 2000[a]	98.4	0.8	0.8	u	100.0	3,984
Northern West Africa						
Guinea 1999	89.8	9.4	0.8	u	100.0	6,656
Mali 1995-96	87.7	2.0	10.2	0.1	100.0	9,097
Mali 2001	91.4	2.3	6.3	u	100.0	11,767
Burkina Faso 1998-99	86.3	0.8	12.1	1.0	100.0	5,539
Mauritania 2000-01	70.9	1.1	27.5	0.6	100.0	5,508
Niger 1998	93.1	2.6	2.4	1.9	100.0	340
Southern West Africa/ Middle Africa						
Côte d'Ivoire 1994	90.5	0.9	4.7	3.9	100.0	3,459
Côte d'Ivoire 1998-99	93.2	0.4	5.1	1.3	100.0	1,354
Nigeria 1999	72.8	12.9	12.0	2.3	100.0	2,088
Benin 2001	95.9	0.5	3.7	u	100.0	1,047
East Africa						
Kenya 1998[a]	62.2	34.4	3.3	0.3	100.0	516
Tanzania 1996	81.6	3.5	6.2	7.4	100.0	1,476
West Asia						
Yemen 1997	90.8	8.6	0.7	u	100.0	1,546

Note: No data were available for CAR
[a] Question asked about the daughter's experience, not the experience of the woman.
u = Unknown (not available)

The phenomenon of FGC being carried out by medical personnel rather than traditional practitioners is sometimes referred to as the "medicalization" of FGC. The medicalization of FGC has increased substantially in recent years, particularly in Egypt, Guinea, and Mali (see chapter 5).

4.4 Health Consequences from Survey Data

It has been difficult to find ways to assess the overall impact of FGC on women's health. DHS surveys include little information about the possible consequences of FGC on women's health. In 9 of the 20 surveys, respondents were asked one or more

questions about the health consequences of FGC for themselves or their daughters, but no such questions were asked in the other 11 surveys.

In the 1995 and 2002 surveys in Eritrea, respondents were asked whether they had any health problems during sexual relations or during delivery as a result of FGC. In the Eritrea 1995 survey, 19 percent of women reported that they had experienced problems during sexual intercourse or during delivery as a result of circumcision. That figure dropped to 13 percent in 2002. In the Egypt 1995 survey, mothers were asked whether they had experienced any complications after being cut, and 5 percent reported that they had health complications after being circumcised. Similarly, respondents in Yemen were asked whether their daughter had any complications after the FGC operation and what those complications were. Eleven percent of respondents reported that their daughter had experienced health problems after being circumcised. In the Central African Republic 1994-95 survey, where respondents were simply asked whether they had any problems after their circumcision, 27 percent reported that they had experienced health problems, primarily excessive bleeding and pain.

In the Eritrea 1995 survey, 19 percent of women reported that they had experienced problems during sexual intercourse or during delivery because of circumcision.

In four other surveys (Guinea 1999, Mali 2001, Mauritania 2000-01, Benin 2001), DHS used a question about medical complications that became part of the FGC module. Respondents who had at least one daughter circumcised were asked whether the daughter most recently circumcised had any of the following consequences: excessive bleeding, infection or a fever, difficulty in urinating, swelling, or slow healing. This question was asked about the daughter most recently circumcised in an effort to make the recall period as short as possible. Table 4.12 shows the results of this question for the four surveys.

Table 4.12
Percentage of daughters who experienced specific health consequences after their circumcision according to mothers' reports, DHS surveys 1999-2001

Survey	Bleeding	Urination	Infection	Swelling	Slow healing	Number of daughters
Guinea 1999	30.9	16.8	12.4	4.4	10.2	2,340
Mali 2001	16.8	21.1	7.8	4.6	u	5,999
Mauritania 2000-01	24.6	25.1	32.4	11.6	22.6	2,574
Benin 2001	11.5	14.8	13.1	8.7	u	246

u = Unknown (not available)

In Mali and Benin, the responses for infection and slow healing were combined, so an unknown portion of the percentage who reported an infection were also slow in healing. The proportion of daughters who experienced medical complications after circumcision is higher in Mauritania than in the other countries.

Answers to a question about the health consequences of a woman's circumcision tell very little about what impact the circumcision event had on the woman's health because respondents rely on recall and their own impressions about what is expected and what is out of the ordinary. Asking about a daughter's health problems following circumcision has fewer recall problems, but still suffers from the ambiguity of what is considered ordinary and what is considered excessive. Some insight into the health consequences of circumcision could be gained through further analysis, such as looking at the relationship between the specific consequences (e.g., bleeding, fever, pain)

and the type of FGC practiced, or verifying that the question was well understood, or determining what consequences respondents consider normal and therefore not worth reporting in a survey. In societies where a premium is placed on the endurance of pain and suffering during FGC, girls may be less likely to report health problems. In contexts with an aggressive media campaign against FGC, mothers may minimize the effects of the FGC experience to avoid criticism.

4.5 Individual Perceptions of FGC

All of the DHS surveys asked respondents questions about their opinions and perceptions of FGC, but the specific patterns of questioning varied greatly. As seen in Table 3.1, all surveys except for Côte d'Ivoire 1994 and Tanzania asked respondents whether they thought the practice of FGC should continue. As discussed in Chapter 3, in early surveys, respondents were asked why they supported or opposed FGC, while in later surveys, they were asked about the advantages to girls of being circumcised or not being circumcised.

4.5.1 Support for FGC among Women

It was expected that women who had been circumcised would be more likely to support FGC than those who had not been cut and that most women who had not been circumcised would not be supportive of the practice. The question is, what proportion of women who have been circumcised say they would like the practice to be abolished? Would this be a very small number? How would this vary from one country to another? Would there be systematic differences between high- and low-prevalence countries?

Table 4.13 provides information related to some of these questions. The table shows the proportions of circumcised women who stated that they wanted FGC to be abolished and those who wanted it to continue. The key number in the table is the proportion of circumcised women who say they want the practice abolished, for those are the women most likely to turn against FGC.

The surveys in northeastern Africa—conducted in countries with FGC prevalence rates of 80 percent or above—vary widely in the expression of support for FGC. It would be expected that some of the circumcised women who state that they want FGC to be abolished would do so in response to media campaigns in many countries that have urged people to abolish the practice. The surveys in Egypt and Sudan (northern) indicate that 10 to 14 percent of circumcised women are against the practice, whereas the figure for Ethiopia is 25 percent. A large proportion of circumcised women in Eritrea said that they want FGC to stop (36 percent in 1995 and 44 percent in 2002).

Data from a number of countries indicate that a large proportion of survey respondents who are themselves circumcised want to end the practice.

Data from a number of countries indicate that a large proportion of survey respondents who are themselves circumcised want to end the practice of FGC. For example, in Eritrea, a country with high FGC prevalence (89 percent in 2002) and a high rate of infibulation (39 percent), 49 percent of women want the practice to stop and the same proportion want it to continue. In that same survey, 63 percent of respondents with a daughter had at least one daughter circumcised. Among those who want FGC to stop, 42 percent still had at least one of their daughters circumcised. Such findings in Eritrea raise the question, what does it mean to declare opposition to the practice of FGC in Eritrea?

It is possible that some of the circumcised women decided very recently that they want to stop the practice of FGC, after a daughter was circumcised. However, some respondents may have given the answer they thought was preferred by the interviewer. For others, the answer to the support question is not compatible with their behavior because they were involved in having their daughter cut even though they reported being opposed the practice.

Table 4.13
Percent distribution of circumcised women by whether they support the continuation of FGC or want it to stop, DHS surveys 1989-2002

Region/country	Continue	Stop	Don't know	Total	Number of women
Northeastern Africa					
Egypt 1995	84.0	10.4	5.6	100.0	14,332
Egypt 2000	76.9	13.3	9.7	100.0	15,153
Eritrea 1995	59.3	36.2	4.5	100.0	4,775
Eritrea 2002	53.3	44.2	2.5	100.0	7,765
Sudan (northern) 1989-90	86.0	13.9	0.0	100.0	5,226
Ethiopia 2000	70.5	24.8	4.7	100.0	12,280
Northern West Africa					
Guinea 1999	68.8	21.6	9.5	100.0	6,656
Mali 1996	79.7	10.0	10.2	100.0	9,097
Mali 2001	85.2	8.7	6.0	100.0	11,767
Burkina Faso 1999	23.8	63.7	12.5	100.0	4,615
Mauritania 2001	77.7	13.1	9.1	100.0	5,508
Niger 1998	70.0	21.2	8.7	100.0	340
Southern West Africa/ Middle Africa					
Côte d'Ivoire 1999	57.4	35.5	7.1	100.0	1,354
Central African Republic 1994	61.3	33.5	5.2	100.0	2,555
Nigeria 1999	54.4	37.0	8.6	100.0	2,056
Benin 2001	14.0	75.7	10.3	100.0	1,047
East Africa					
Kenya 1998	40.9	56.7	2.5	100.0	2,965
West Asia					
Yemen 1997	78.2	16.6	5.2	100.0	2,354

Note: Question was not asked in Côte d'Ivoire 1994 or Tanzania 1996.

The high rate of declarations in favor of stopping FGC may be related to the anti-FGC activities that began very early in Burkina Faso.

With the exception of Niger (5 percent), the countries of northern West Africa have high (71 to 98 percent) FGC prevalence rates, and their levels of support for FGC vary from 64 to 80 percent, except for Burkina Faso, where only 24 percent of circumcised women said that the practice should continue, and 64 percent said it should be abolished. The high rate of declarations in favor of stopping FGC may be related to the anti-FGC activities that began very early in Burkina Faso under Thomas Sankara (President, 1983-87) as well as the fact that the practice of FGC is banned in the country. Women were asked whether they knew there was a law banning FGC in Burkina Faso. Among those who responded "yes" to that question (78 percent), a total of 74 percent said that FGC should be stopped, while 16 percent said it should continue, and 9 percent did not know.

The countries in southern West Africa have higher proportions of respondents who say they want to abolish FGC, which may be related to the relatively low overall FGC prevalence rates (17 to 45 percent) in those countries. Benin stands out from the rest, with 76 percent of circumcised women being against FGC. In Benin, 60

percent of the population is from either the Fon or Adja ethnic groups, who do not practice FGC. Most of the circumcision in Benin takes place among the Fulani, Bariba, and Yoa minorities—prevalence ranging from 72 to 88 percent—who make up just 19 percent of the population. Another set of ethnic groups in Benin that make up 19 percent of the population has a prevalence rate of around 20 percent, and most of these women reported being opposed to FGC. Nevertheless, 27 percent of the women who opposed FGC in Benin had one of their daughters circumcised.

Table 4.14 examines whether women who declare they want the practice of FGC to stop have had their eldest daughters circumcised. In seven surveys, respondents were asked about their support of FGC and about the circumcision status of their eldest daughter. Table 4.14 shows the FGC prevalence rates among daughters of mothers who support FGC and those who do not, using as the denominator all circumcised women with at least one living daughter. The table indicates that there is some difference between the two groups in all countries except for Mali.

Table 4.14
Among circumcised women with at least one living daughter, the prevalence of FGC among eldest daughters, by whether the mother supports or opposes FGC, DHS surveys 1995-1999

Survey	Prevalence of FGC among eldest daughters: Mother wants FGC to stop	Prevalence of FGC among eldest daughters: Mother wants FGC to continue	Prevalence of FGC among all eldest daughters
Eritrea 1995	60.3	79.4	73.5
Mali 1995-96	75.8	77.3	77.2
Burkina Faso 1998-99	47.9	61.7	51.7
Niger 1998	33.7	57.7	52.4
Côte d'Ivoire 1998-99	37.5	55.6	49.2
Nigeria 1999	35.4	76.2	59.8
Kenya 1998	16.2	39.9	24.8

The results for Kenya differ from those for the other countries because of the low prevalence of FGC among eldest daughters of circumcised women in Kenya (25 percent), and because of the substantial difference in prevalence between the daughters of the two groups of women: 16 percent of those who oppose FGC had their eldest daughters cut, compared with 40 percent of those who support FGC. In the other surveys, the prevalence of FGC among daughters ranges from 49 to 77 percent.

Excluding Kenya, from one-third to three-fourths of circumcised women who say FGC should be stopped have had their eldest daughter circumcised. Although some mothers may have changed their minds since their daughter was cut, or the daughter was cut against the mother's will, the literature suggests that these are few in number. So why would so many women—having been cut themselves and who say they oppose FGC—participate in their daughter's circumcision? Gerry Mackie argues that while women truly oppose FGC, they are unable to stop it by themselves, so they continue the practice (Mackie, 2000).

Excluding Kenya, from one-third to three-fourths of circumcised women who say FGC should be stopped have had their eldest daughter circumcised.

It is also possible that a response to a single question presented in a survey context does not reflect the actual views of these women because there is often discordance between such responses and individual actions. Researchers in health communication have long debated the reasons differences exist between declared desires and individ-

ual actions. Those who support diffusion theory argue that changes in such stated support can be a precursor to changes in behavior. It is common however for health education campaigns to yield major changes in knowledge but without any subsequent changes in behavior (Hornik et al., 2002).

4.5.2 Reasons to Continue FGC

In 11 surveys, after respondents were asked whether they thought FGC should continue, those who wanted FGC to continue were asked why they held this view. The precoded answers included 1) custom and tradition, 2) good tradition, 3) religion demands it, 4) cleanliness/hygiene, 5) virginity/morality, and 6) better marriage prospects. Table 4.15 shows the responses given most frequently to support the continuation of FGC. Respondents were allowed to give more than one answer.

A large proportion of respondents cited "tradition," or "custom," as their first answer to the question. These two terms are used in essentially the same manner and thus are considered equivalent in their meaning. "Good tradition" was another possible coding in some countries, and many respondents mentioned it. "Religion" here refers to answers that say that religion requires FGC to be done. "Virginity" refers to answers that say, for example, that FGC protects a girl's virginity, prevents her from becoming promiscuous, and prevents immoral behavior. "Marriage prospects" refers to the belief that a girl cannot be married unless she is circumcised, and that she will not be acceptable to her husband unless she is circumcised. "Hygiene and cleanliness" refers mostly to aesthetic judgments of the body's appearance rather than to being clean or dirty.

Table 4.15
Among women who want FGC to continue, percentage who gave specific reasons for continuing FGC, DHS surveys 1989-1999

Survey	Custom/ tradition	Good tradition	Virginity	Religion	Hygiene/ cleanliness	Marriage prospects
Egypt 1995	u	58	9	31	36	9
Eritrea 1995	69	53	15	12	15	4
Sudan (northern) 1989-90	68	19	7	14	8	5
Mali 1995-96	61	28	5	13	6	3
Burkina Faso 1998-99	71	u	10	9	10	4
Niger 1998	22	u	27	6	2	29
Côte d'Ivoire 1998-99	68	u	15	11	17	36
CAR 1994-1995	70	26	13	<1	1	9
Nigeria 1999	50	35	14	2	5	7
Kenya 1998	56	42	30	5	4	18
Yemen 1997	36	12	6	33	46	3

u = Unknown (not available)

In 9 of the 11 surveys, between 50 and 71 percent of women mentioned "custom and tradition" as a reason for continuing FGC.

It should be noted that denominators in these surveys vary widely, and only those women who said they wanted FGC to continue were asked why they held that opinion. For example, in Egypt 1995, 82 percent of respondents (84 percent of those circumcised) said that they wanted FGC to continue, and 58 percent of those said FGC should continue because of tradition. In Kenya, only 20 percent of respondents said that the practice should continue, and among them, 56 percent mentioned custom or tradition as a reason for continuing FGC.

In 9 of the 11 surveys, between 50 and 71 percent of women mentioned "custom and tradition" as a reason for continuing FGC. A substantial proportion also mentioned "good tradition" as a reason. What might this really mean? It suggests that

among the women who think FGC should continue, half to two-thirds regard circumcision as part of their commonsense understanding of what parents should do for their daughters—that they are doing what they think is appropriate.

In two countries, only a small proportion of respondents invoked tradition or custom to explain why FGC should continue: Niger (22 percent) and Yemen (36 percent). These are also countries with low FGC prevalence: Niger (5 percent) and Yemen (23 percent).

Respondents who said that FGC should be stopped were asked why they thought it should be abolished. They mainly gave two answers: "medical complications" and "bad tradition." In six of the surveys, "medical complications" was the most common response, ranging from 37 to 67 percent, while "bad tradition" was the most frequent response in the five other surveys, ranging from 50 to 72 percent. There is no apparent relationship between FGC prevalence and reasons for wanting FGC to be stopped. The countries with high FGC prevalence are not different from those with low FGC prevalence in terms of the reasons given for wanting to stop FGC. It is interesting that in half of the surveys the main reason given for continuing FGC was "tradition," while the main reason given for stopping FGC was "bad tradition." These findings suggest that further research is necessary to explain the significance of such normative responses.

In six of the most recent surveys, women were asked, what were the benefits of getting a girl circumcised? Then they were asked, what were the benefits of not circumcising a girl? In four surveys the main benefit cited was social approval (35 to 65 percent). In Benin 2001, 41 percent said that they did not know, and in Egypt 2000, 58 percent said that it was to "uphold tradition." Responses given regarding perceived drawbacks of FGC varied substantially. In Egypt 2000, 75 percent of women said that there were no drawbacks, as did 59 percent of those in Mali 2001. For Eritrea 2002, the percentage was 43 percent. In Benin 2001, 48 percent of women said that they did not know of any drawbacks to FGC.

4.5.3 Support for FGC among Men

Men were asked questions about FGC in seven countries in West Africa, and in Eritrea. One of the questions was whether they think FGC should continue or be stopped. Table 4.16 compares women and men regarding support for the practice of FGC. The denominators are those who have heard of FGC.

Higher proportions of women than men favor the continuation of FGC in all the countries surveyed.

The table shows that higher proportions of women than men favor the continuation of FGC in all the countries surveyed, although support among women and men is about equal in Benin 2001 (5 percent each). The percentage who say that FGC should be stopped is consistently higher for men than that of women. Does this mean that more women than men favor the continuation of FGC? How can this difference be explained? Three explanations are worth considering.

It is likely that women in most of these countries consider their daughter's circumcision their responsibility, while men are expected to play a more peripheral role in the planning and activities associated with it. These views were expressed frequently in interviews with men and women in a qualitative research study carried out by ORC Macro in Guinea (Yoder et al., 1999). The same views were documented in The Gambia, according to Ylva Hernlund (2003). If women believe that they are responsible for seeing that their daughters are circumcised, it would be expected that more women than men would support the practice.

Table 4.16
Percentage of women and men who said that FGC should continue, DHS surveys 1995-2001

Survey	Women	Men
Eritrea 1995	57	46
Guinea 1999	68	52
Mali 2001	80	73
Burkina Faso 1998-99	21	17
Mauritania 2000-01	64	37
Niger 1998	32	14
Côte d'Ivoire 1998-99	30	23
Benin 2001	5	5

It may be that support for FGC in these countries has diminished in the past few years as more social and political leaders speak out against the practice and as more people are living in urban areas. If this is the case, it is likely that men will come more quickly to oppose FGC than women because they are more likely to participate in public life than women.

The difference may also be related to education because, as shown earlier, there is a close relationship between a woman's level of education and the probability of having a daughter circumcised. The pattern implies that spending more time in school has an impact on the way individuals view the practice of circumcision, particularly as it applies to their daughters. In all of these countries, more men than women are educated and men remain in school longer than women. Therefore, whatever effect education has on reducing support for FGC is likely to be expressed first in men.

5

Changes Over Time

5.1 Tracking Changes in the Practice of FGC

Recent studies of female genital cutting in African societies have shown that the practice of FGC varies widely in how it is conducted and that it is undergoing changes in some societies (Shell-Duncan and Hernlund, 2000; Gruenbaum, 2001). The literature on FGC suggests that girls in many countries are being cut at earlier ages, that the ceremonial aspects have been reduced, that larger proportions of girls are being cut by medical personnel rather than by traditional practitioners, and that overall prevalence is decreasing. Is there statistical evidence for these impressions? Are there changes in the practice of FGC that can be identified therough the analysis of data from DHS surveys?

This chapter examines evidence for changes over time in FGC prevalence, in the ways FGC is conducted, and in declarations of support for the continuation of FGC. Using DHS data to monitor changes in the practice of FGC is difficult because of the lengthy retrospective periods involved. Respondents are asked about an experience that occurred some years in the past, often when they were very young. For girls age 15-19, most respondents are reporting on an event that took place 10 to 15 years earlier. For example, in Mali 2001, 61 percent of circumcised girls were cut before the age of five and 81 percent were cut before the age of ten. A 17-year-old respondent in the youngest age group (15-19) would be answering questions about an event that occurred 10 to 15 years in the past, that is, between 1986 and 1991. This means that any changes seen in the data occurred prior to the anti-FGC campaigns that began in the 1990s. More recent data are needed for Mali to determine the impact of the anti-FGC campaigns.

Evidence for changes over time can be obtained by comparing the FGC experiences of age cohorts, by comparing data on mothers and daughters, and by comparing the results of surveys conducted at two points in time.

Evidence for changes over time can be obtained by comparing the FGC experiences of different age cohorts, by comparing data on mothers and daughters, and in a few countries, by comparing the results of surveys conducted at two points in time. Data are available from successive surveys in four countries: Egypt, Eritrea, Mali, and Côte d'Ivoire. In these countries, FGC prevalence, descriptions of the FGC procedure, and individual perceptions of FGC can be compared to identify changes that occurred over a five-year period.

5.2 Comparison of Age Cohorts

The division of respondents (women age 15-49) into seven age cohorts allows for the comparison of women's experience with FGC at different times in the past. Table 5.1 shows the prevalence of FGC by five-year age groups for each of the 16 countries. In 9 of the 16 countries, there is a marked decrease in FGC prevalence in the younger age groups (15-19 and 20-29), while in the other seven age groups, prevalence remains at roughly the same level. These age-specific rates suggest that in 9 of the 16 countries, prevalence of FGC has decreased over the past few decades. However, evi-

dence for decreased FGC is weaker in Eritrea and Burkina Faso than in the other countries. The countries with the highest prevalence show little change over time.

Table 5.1
Percentage of women circumcised, by age, DHS surveys 1989-2002

Region/country	Age group							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Northeastern Africa								
Egypt 2000[a]	99.1	97.4	97.2	96.7	97.4	96.9	97.9	97.3
Eritrea 2002	78.3	87.9	90.8	93.4	92.6	94.1	95.0	88.7
Sudan (northern) 1989-90[a]	86.8	89.7	88.6	89.7	89.0	89.0	90.9	89.2
Ethiopia 2000	70.7	78.3	81.4	86.1	83.6	85.8	86.8	79.9
Northern West Africa								
Guinea 1999	96.6	98.5	99.1	99.1	99.1	99.3	99.5	98.6
Mali 2001	91.2	91.3	91.9	92.1	92.3	91.2	91.0	91.6
Burkina Faso 1998-99	64.2	70.7	75.0	73.7	74.1	76.7	74.1	71.6
Mauritania 2000-01	65.9	71.1	73.4	74.2	71.7	76.5	68.6	71.3
Niger 1998	5.0	4.8	4.3	5.3	3.8	3.3	3.3	4.5
Southern West Africa								
Middle Africa								
Côte d'Ivoire 1998-99	41.2	42.7	42.4	49.0	44.5	51.4	51.0	44.5
CAR 1994-95	34.6	42.7	44.3	44.1	47.5	51.4	53.1	43.4
Nigeria 1999	8.8	19.6	26.4	31.3	31.0	37.9	48.3	25.1
Benin 2001	12.1	13.4	16.9	18.4	18.3	25.1	23.7	16.8
Eastern Africa								
Kenya 1998	26.0	32.2	40.4	40.9	49.3	47.4	47.5	37.6
Tanzania 1996	13.5	15.9	19.6	20.8	18.7	21.3	22.2	17.9
Western Asia								
Yemen 1997[a]	19.3	22.2	21.3	22.9	23.6	25.1	25.0	22.6

[a] Ever-married women

Although some countries with FGC levels below 50 percent showed lower prevalence in the younger cohorts, this was not the case for Niger or Yemen. The Niger results may be due to the small number of cases involved and an overall prevalence of just 5 percent, or they may indicate there was no change. In Yemen, there appears to have been no change in FGC prevalence.

While age at circumcision is declining in some countries, overall, the countries in this analysis fall into three categories according to the age of circumcision of most respondents: 1) those countries where circumcision is done at a relatively advanced age (9-13 years old) (Egypt, Guinea, the Central African Republic, and the two countries of eastern Africa [Kenya and Tanzania]), 2) those countries where circumcision occurs at an intermediate age (5-7 years old) (Mali, Burkina Faso, Niger, and Benin), and 3) those countries where circumcision is done at a very young age (first few weeks to 2-3 years) (Eritrea, Ethiopia, Mauritania, Côte d'Ivoire, Nigeria, and Yemen). The survey in Sudan did not ask for age at circumcision. It should be kept in mind, however, that presenting national-level figures obscures the variation in age at circumcision that is found in subgroups within countries.

The median age at circumcision has declined substantially in four countries: Mali, Burkina Faso, Côte d'Ivoire, and Kenya.

The median age at circumcision has declined substantially in four countries: Mali, Burkina Faso, Côte d'Ivoire, and Kenya. In other countries the age at circumcision has declined slightly or stayed the same. In Mali the median age at circumcision for women age 30-45 was about three, while for those age 15-29, it was less than one

year. No trend was apparent in the other countries, although in Mauritania this was because the median age at circumcision was less than one year for all age groups.

Table 5.2 shows the percentage of respondents circumcised by a medical professional. For four surveys (Egypt 2000, Ethiopia 2000, Kenya 1998, and Yemen 1997), the data are derived from the FGC experience of daughters (as reported by their mothers) rather than the experience of the respondents themselves. In seven countries (nine surveys), less than 1 percent of girls were circumcised by a medical professional and there was no discernable trend over time. Tanzania can also be included in this group because the proportion of circumcisions by medical professionals was less than 4 percent, with no trend over time. Overall, half of the surveys show a trend toward medicalization of FGC.

A trend toward medicalization of FGC was seen in half of the surveys.

On the other hand, in six countries (eight surveys), circumcision by a medical professional was higher in the youngest age groups. This trend appears particularly in Egypt 1995, northern Sudan 1989-90, and Guinea 1999. In the surveys where at least 9 percent of girls were circumcised by a medical practitioner, the trend toward increased medicalization is clear. In Mali 2001, where overall only 2.3 percent of circumcised women have been cut by a medical professional, the rate for the youngest age group (15-19) is 5 percent, compared with less than 1 percent for the oldest age group (45-49).

Table 5.2
Percentage of circumcised women who were cut by a medical professional, by age, DHS surveys 1989-2002

	Age group							
Survey	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Northeastern Africa								
Egypt 1995	32.4	25.4	20.2	17.3	14.9	10.8	9.1	17.3
Egypt 2000[a]	0.0*	57.3*	68.0	66.5	62.7	62.6	56.5	61.4
Eritrea 1995	0.6*	0.2*	0.2*	0.1*	0.0*	0.0*	0.0*	0.2*
Eritrea 2002	1.2*	0.6*	0.7*	0.1*	0.5*	0.1*	0.2*	(0.6)
Sudan (northern) 1989-90	46.7	46.3	38.6	36.7	28.3	26.4	24.4	35.6
Ethiopia 2000[a]	0.0*	0.1*	0.2*	0.9*	1.6*	1.1*	0.5*	(0.9)
Northern West Africa								
Guinea 1999	21.8	16.2	7.7	(5.2)	2.2*	0.4*	0.8*	9.4
Mali 1995-96	3.6	(2.5)	(2.8)	1.4*	1.1*	0.6*	0.2*	2.0
Mali 2001	4.8	3.2	(2.6)	0.8*	1.4*	0.4*	0.3*	2.3
Burkina Faso 1998-99	0.7*	0.9*	0.5*	0.2*	0.4*	0.2*	0.0*	(0.5)
Mauritania 2000-01	1.5*	1.3*	1.0*	0.5*	0.2*	0.4*	0.0*	(0.9)
Niger 1998	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Southern West/ Africa Middle Africa								
Côte d'Ivoire 1994	1.1*	0.8*	0.7*	1.4*	0.9*	0.6*	0.3*	(0.9)
Côte d'Ivoire 1998-99	0.4*	1.2*	0.3*	0.3*	0.0*	0.0*	0.0*	0.4*
Nigeria 1999	(20.5)	17.8	14.7	(10.6)	(13.2)	7.4*	6.8*	12.7
Benin 2001	2.1*	0.0*	0.5*	0.6*	0.0*	0.0*	0.0*	0.5*
Eastern Africa								
Kenya 1998[a]	0.0*	0.0*	56.5	53.6	41.6	17.2	25.2	34.4
Tanzania 1996	3.1*	4.1*	2.6*	3.1*	7.3*	2.8*	1.5*	3.5
Western Asia								
Yemen 1997[a]	8.2*	(13.7)	8.2*	(7.9)	(8.6)	7.8*	5.6*	8.6

Note: Question was not asked in the CAR survey. Figures in parentheses are based on 25 to 49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases.
[a] Based on information about daughter (eldest daughter or the most recently circumcised daughter)

DHS data indicate that in some countries, respondents are being circumcised at a younger age than previously, that in a few countries a higher proportion of respondents are being circumcised by medical professionals than previously, and that the overall prevalence of FGC is declining. While these data do not provide any direct evidence of changes in the importance of the ceremonial aspects of FGC, it is likely that the movement toward circumcision at younger ages will reduce the social and ceremonial significance of FGC.

In all countries except Côte d'Ivoire 1994 and Tanzania 1996, women were asked whether they think FGC should continue or be stopped. The answer to the question is used to indicate the degree of "support" for FGC in a particular population. Table 5.3 shows the percentage of women who declared their support for FGC by age group for 14 countries. The denominators in this table are women who have heard of FGC.

The largest difference in the percentage of respondents who support FGC by age cohort is between the oldest and youngest age cohorts.

In the countries with the highest prevalence (Egypt 1995 and 2000, Sudan (northern) 1989-90, Guinea 1999, and Mali 1995-96 and 2001) there is no discernable trend toward decreasing support for FGC by age group, with the exception of Guinea, where support is somewhat lower in the two youngest age groups. Table 5.3 shows that the largest difference in respondent support for FGC by age group is between the youngest and oldest age groups. Further analysis of DHS data to identify the characteristics of those who support and those who oppose the continuation of FGC should yield more insight into the situation in each country.

Table 5.3
Percentage of women who support FGC, by age, DHS surveys 1989-2002

	Age group							
Region	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Northeastern Africa								
Egypt 1995	84.8	83.9	81.7	79.2	81.3	80.8	82.2	81.6
Egypt 2000	80.5	75.4	75.7	72.6	74.8	75.5	76.7	75.3
Eritrea 1995	40.9	49.0	59.0	60.9	68.2	66.6	71.2	56.8
Eritrea 2002	36.1	44.4	46.0	54.0	54.7	60.3	63.2	48.4
Sudan (northern) 1989-90	77.1	74.4	76.7	78.9	81.2	82.2	81.3	78.5
Ethiopia 2000	53.4	57.0	58.5	65.2	63.6	66.3	66.7	59.7
Northern West Africa								
Guinea 1999	60.5	65.7	72.1	69.9	70.7	72.8	71.5	68.3
Mali 1995-96	70.0	75.9	78.2	77.0	76.9	75.4	74.7	75.3
Mali 2001	78.3	78.6	81.0	78.1	77.9	79.0	78.9	78.8
Burkina Faso 1998-99	18.2	17.2	20.0	17.2	16.9	17.1	21.2	18.1
Mauritania 2000-01	58.0	59.9	61.7	59.2	54.1	62.7	60.8	59.4
Niger 1998	7.3	8.1	9.6	9.9	9.4	10.5	11.5	9.0
Southern West Africa/ Middle Africa								
Côte d'Ivoire 1998-99	25.8	27.2	25.3	29.2	32.5	31.6	38.0	28.4
CAR 1994-95	27.6	30.6	30.2	30.5	30.2	31.2	35.5	30.2
Nigeria 1999	6.3	13.2	15.4	19.2	17.5	22.3	29.9	15.4
Benin 2001	4.2	4.0	2.5	2.7	2.6	4.4	3.2	3.4
Eastern Africa								
Kenya 1998	20.6	19.5	20.2	17.1	19.4	20.5	21.9	19.8
Western Asia								
Yemen 1997	17.5	22.3	19.2	20.2	22.5	20.8	23.4	20.8

Note: Question was not asked in Côte d'Ivoire 1994 and Tanzania 1996.

5.3 Mother-daughter Comparisons

The limitations of comparing FGC prevalence for mothers and daughters were discussed earlier (section 3.5). However, it may be useful to compare the circumcision status of eldest daughters and their mothers. Table 5.4 shows this correlation, based on information from all women who have heard of FGC and who had at least one living daughter at the time of the survey. The last column in the table shows the overall prevalence of FGC for eldest daughters.

Table 5.4
Circumcision status of eldest daughters and their mothers, based on information from women who have heard of FGC and have at least one living daughter, DHS surveys 1995-1999

	Eldest daughter circumcised		Eldest daughter not circumcised		
Survey	Mother not circumcised	Mother circumcised	Mother not circumcised	Mother circumcised	Percentage of eldest daughters circumcised
Eritrea 1995	19.5	73.8	80.5	26.2	71.4
Mali 1995-96	11.6	77.4	88.4	22.6	73.6
Burkina Faso 1998-99	7.6	54.4	92.4	45.6	47.4
Niger 1998	7.5	50.1	92.5	49.9	14.2
Côte d'Ivoire 1998-99	1.3	49.2	98.7	50.8	25.8
Nigeria 1999	1.9	59.2	98.1	40.8	20.2
Kenya 1998	0.6	24.9	99.4	75.1	11.3
Tanzania 1996	0.6	30.4	99.4	69.6	6.8

Given the evidence of decreasing FGC prevalence among the youngest women in all of the countries except Niger, it is expected that the prevalence of FGC among daughters will be less than that among mothers. This can be seen in Table 5.4 by comparing columns 2 and 5. Note that the small proportion of eldest daughters circumcised in Kenya and Tanzania probably reflects the older age at circumcision in those countries (about 12 years); some of the daughters who were not circumcised at the time of the survey will likely be circumcised in the future.

5.4 Comparison of Survey Results at Two Points in Time

By the end of 2002, FGC data were available for multiple surveys in four countries: Egypt, Eritrea, Mali, and Côte d'Ivoire, enabling FGC data from two points in time for the same country to be compared. By the end of 2004, four more countries were added to the list: Burkina Faso, Nigeria, Kenya, and Tanzania.

Table 5.5 presents the findings on FGC prevalence and on support for the practice of FGC for the first four countries. Only Eritrea shows a measurable decrease in the prevalence of FGC. The small observed increase in Côte d'Ivoire may not constitute a real change because the differential is small and within the range of sampling error.

The percentage of women who support FGC dropped by 6 to 8 percentage points in Egypt and in Eritrea, but no drop was seen in Mali. However, in Mali 1995-96, the question about whether FGC should be continued was asked right after questions about the daughter's circumcision, whereas in Mali 2001, the question was preceded by four questions on the advantages and disadvantage of being circumcised, and one

on religion. It is possible that the different position of the question in the two surveys resulted in a higher showing of support for FGC in the Mali 2001 survey.

Table 5.5
FGC prevalence and support for FGC in four countries where two DHS surveys were conducted, DHS surveys 1994-2002

Country	FGC prevalence (%)	Support for FGC (%)
Egypt 1995	97.0	81.6
Egypt 2000	97.3	75.3
Eritrea 1995	94.5	56.8
Eritrea 2002	88.7	48.8
Mali 1995-96	93.7	75.3
Mali 2001	91.6	80.3
Côte d'Ivoire 1994	42.7	u
Côte d'Ivoire 1998-99	44.5	30.0

u = Unknown (not available)

Table 5.6 compares the surveys by variables from respondents' reports of their experience with FGC, or (in the case of Egypt) their daughter's experience with FGC. In three of the four countries, the proportion of girls circumcised before the age of five increased, suggesting that girls are being circumcised at younger ages. In the five-year period between the surveys, the percentage of women circumcised before the age of five doubled in Côte d'Ivoire, from 24 to 55 percent. Similarly, in Mali, the proportion cut before the age of five increased from 41 to 61 percent. No changes were observed for the percentage infibulated, but the number of cases was small in Mali and Côte d'Ivoire, and the question was changed in Eritrea.

In Egypt, there was an increase in the proportion of girls circumcised by a medical professional. along with a slight decrease in the proportion circumcised by a traditional practitioner.

Table 5.6
Comparison of two surveys in four countries by characteristics of the FGC experience, DHS surveys 1994-2002

Country	Percentage cut before age 5 years	Percentage infibulated	Percentage cut by medical professional	Percentage cut by traditional practitoner
Egypt 1995	5.0[a]	u	54.8[a]	42.4
Egypt 2000	6.2[a]	u	61.4[a]	38.3[a]
Eritrea 1995	60.0	34.0	0.1	95.0
Eritrea 2002	75.1	38.6[b]	0.6	91.2
Mali 1995-96	41.3	0.5	2.0	87.7
Mali 2001	61.2	1.9[b]	2.3	91.4
Côte d'Ivoire 1994	24.3	u	0.9	90.6
Côte d'Ivoire 1998-99	55.0	2.3	0.4	92.8

[a] Figures are for daughters, not respondents.
[b] Question was quite different.
u = Unknown (not available)

There was an increase in the proportion of girls circumcised by a medical professional in Egypt, along with a slight decrease in the proportion circumcised by a traditional practitioner.

Overall, in many countries girls are being cut at younger ages than in the past. However, at the same time, FGC prevalence is lower for the youngest age groups in half of the countries examined. In a few countries, more circumcisions are being done by medical personnel than in the past. DHS data on FGC point to many opportunities for further analysis that would increase understanding of the practice and promote implementation of more effective anti-FGC programs. The countries that have shown the greatest amount of change, or have exhibited surprising findings deserving of more investigation, are Eritrea, Burkina Faso, and Benin.

6

Conclusion: Use of DHS Data on Female Genital Cutting

The DHS data on female genital cutting collected in 16 countries from 1989 to 2002 show substantial variation in FGC prevalence between and within countries. FGC prevalence varies from a high of 99 percent in Guinea (1999) to a low of 5 percent in Niger (1998). With FGC data now available from population-based surveys, it is possible to examine a number of background variables to better understand the dynamics of this social phenomenon. In countries where FGC occurs, the DHS program will continue to include questions on FGC in future surveys.

Both DHS data and the literature on FGC indicate there is substantial variation in the prevalence of FGC among countries, in the manner in which FGC is practiced, and in the relative importance attached to the ritual aspects of the circumcision event. The average age at circumcision varies from a few weeks in Yemen to 12 years in Kenya and Tanzania. The amount of cutting varies from a symbolic nick to excision of external female genitalia and partial closure of the vaginal area (infibulation). The ritual aspects vary from the simple cutting of an infant in the household context to the cutting of a group of adolescent girls in a ritual context (coming-of-age ceremonies), followed by seclusion for a period of weeks or months.

DHS data indicate that the practice of FGC has changed in recent years. Data from several countries indicate that girls are being circumcised at younger ages and there is less cutting than in the past. There is a trend toward medicalization of the practice in some countries, particularly Egypt. Such changes in the practice of FGC should be monitored so program specialists can design the interventions best suited to specific situations.

Given the variation in the way FGC is practiced in different countries, it would be useful to prepare country profiles that describe the FGC situation in each country. The profiles should cover national prevalence, FGC distribution, types of cutting, degree of medicalization of the practice, and the relative importance of ritual in the circumcision event. Such country profiles, or situation analyses, would assist in planning effective programs to promote the abandonment of FGC. Anti-FGC programs should ideally be country specific, adapted to the situation of each country. It may also be useful for some programs to adapt their campaigns to accommodate regional or ethnic differences in the practice. For example, a program may want to develop one strategy for a population in which FGC is nearly universal and another for a population that includes considerable diversity in the practice.

Ideally, anti-FGC programs should be country specific, adapted to the situation of each country. Attention should also be given to campaigns that accommodate regional or ethnic differences in practices.

There has been little use of DHS data sets to examine the distribution of FGC within specific countries or to examine how the practice has changed over time. In countries where the full FGC module was included in the DHS survey, a great deal can be learned about the social context of FGC. Questions to be explored include the role of residence (urban-rural), ethnicity, and religion in the distribution and practice

of FGC. A more detailed study of the FGC experiences of mothers and daughters would also be insightful.

There is an ongoing need for research on current practices of female circumcision. Ethnographic studies of how the cutting is organized, who participates and in what fashion, who pays the costs, and what happens to the girls/women after the circumcision would provide information useful for planning anti-FGC programs that are responsive to local customs and beliefs.

References

Adinma, J.I.B. 1997. Current stage of female circumcision among Nigerian Igbos. *West African Journal of Medicine* 16(4): 227-231.

Althaus, F.A. 1997. Female circumcision: Rite of passage or violation of rights? *International Family Planning Perspectives* 23(3): 130-133.

Caldwell, J.C., I.O. Orubuloye, and P. Caldwell. 2000. Female genital mutilation: Conditions of decline. *Population Research and Policy Review* 19(3): 233-254.

Carr, D. 1997. *Female genital cutting: Findings from the Demographic and Health Surveys program*. Calverton, Maryland: Macro International Inc.

Daffeh, J., S.A. Dumbuya, and A. Sosseh-Gaye. 1999. Listening to the voice of the people: A situation analysis of female genital mutilation in The Gambia. Unpublished paper for WHO, UNFPA, and UNICEF.

Droz, Y. 2000. Circoncision féminine et masculine en pays kikuyu. *Cahiers d'études africaines* 158(XL-2): 215-240.

Eliah, E. 1996. REACHing for a healthier future. *Populi* (May): 12-16.

Gessain, M. 1960. Femmes Coniagui (Guinée). In D. Paulme (ed.), *Femmes d'Afrique Noire*. Paris: Mouton & Co.

Gosselin, C. 2000. Handing over the knife: Numu women and the campaign against excision in Mali. In B. Shell-Duncan and Y. Hernlund (eds.), *Female "circumcision" in Africa*. Boulder, Colorado: Lynne Reinner Publishers, Inc.

Gruenbaum, E. 2001. *The female circumcision controversy: An anthropological perspective*. Philadelphia, Pennsylvania: University of Pennsylvania Press.

Hernlund, Y.K. 2003. *Winnowing culture: negotiating female "circumcision" in The Gambia.* Ph.D. dissertation, Department of Anthropology, University of Washington, Seattle, Washington.

Hornik, Robert C. et al. 2002. Communication in support of Child Survival: Evidence and explanation from eight countries. In *Public health communication: Evidence for behavior change,* R.C. Hornik, ed. Mahwah, New Jersey: Lawrence Erlbaum Associates.

Hosken, F. 1982. *The Hosken report: Genital and sexual mutilation of females*. Lexington, Massachusetts: Women's International Network News.

Jackson, E.E., P. Akweongo, E. Sakeah, A. Hodgson, R. Asuru, and J.E. Phillips. 2003. Inconsistent reporting of female genital cutting status in northern Ghana: Ex-

planatory factors and analytical consequences. *Studies in Family Planning* 34(3): 200-210.

Jackson, M. 1977. *The Kuranko: Dimensions of social reality in a West African society.* New York: St. Martin's Press.

Johnson, M.C. 2000. Becoming a Muslim, becoming a person: Female "circumcision," religious identity, and personhood in Guinea-Bissau. In B. Shell-Duncan and Y. Hernlund (eds.), *Female "circumcision" in Africa*. Boulder, Colorado: Lynne Reinner Publishers, Inc.

Jones, H., N. Diop, I. Askew, and I. Kabore. 1999. Female genital cutting practices in Burkina Faso and Mali and their negative health outcomes. *Studies in Family Planning* 30: 219-230.

Kratz, C. 1994. *Affecting performance: Meaning, movement, and experience in Okiek women's initiation.* Washington, D.C.: Smithsonian Institution Press.

Lane, S.D., and R.A. Rubinstein. 1996. Judging the other: Responding to traditional female genital surgeries. *Hastings Center Report* 26(3): 31-40.

Larsen, U. and F.E. Okonofua. 2002. Female circumcision and obstetric complications. *International Journal of Gynecology and Obstetrics* 77: 255-265.

Leonard, L. 1996. Female circumcision in southern Chad: Origins, meanings, and current practice. *Social Science and Medicine* 43(2): 255-263.

Leonard, L. 2000. Adopting female "circumcision" in southern Chad: The experience of Myabé. In B. Shell-Duncan and Y. Hernlund (eds.), *Female "Circumcision" in Africa*. Boulder, Colorado: Lynne Reinner Publishers, Inc.

Mackie, G. 2000. Female genital cutting: The beginning of the end. In B. Shell-Duncan and Y. Hernlund (eds.), *Female "circumcision" in Africa*. Boulder, Colorado: Lynne Reinner Publishers, Inc.

Melching, M. 2003. Oral presentation to the Inter-Agency Working Group of USAID. Washington, D.C.

Morison, L., C. Scherf, G. Ekpo, K. Paine, B. West, R. Coleman, and G. Walraven. 2001. The long-term reproductive health consequences of female genital cutting in rural Gambia: A community-based survey. *Tropical Medicine and International Health* 6(8): 643-653.

Obermeyer, C. 1999. Female genital surgeries: The known, the unknown, and the unknowable. *Medical Anthropology Quarterly* 13(1): 79-105.

Obermeyer, C. 2002. Systematic review of the health consequences of female genital cutting: An update. Paper presented at the Conference to Advance Research on the Health Effects of Female Genital Cutting. Bellagio, Italy. April.

Obermeyer, C. 2003. The health consequences of female circumcision: Science, advocacy, and standards of evidence. *Medical Anthropology Quarterly* 17(3): 394-412.

Ottenberg, S. 1994. Male and female secret societies among the Bafodea Limba of northern Sierra Leone. In T.D. Blakely, W.E.A. van Beek, and D.L. Thomson (eds.), *Religion in Africa: Experience and expression.* London: James Curry.

Rahman, A. and N. Toubia. 2000. *Female genital mutilation: A guide to laws and policies worldwide*. London: Zed Books.

Shell-Duncan, B. 2001. The medicalization of female circumcision: Harm reduction or promotion of a dangerous practice? *Social Science and Medicine* 52: 1013-1028.

Shell-Duncan, B. and Y. Hernlund (eds.). 2000. *Female "circumcision" in Africa*. Boulder, Colorado: Lynne Reinner Publishers, Inc.

Shell-Duncan, B., W.O. Obiero, and L.A. Muruli. 2000. Women without choices: The debate over medicalization of female genital cutting and its impact on a northern Kenyan community. In B. Shell-Duncan and Y. Hernlund (eds.), *Female "circumcision" in Africa.* Boulder, Colorado: Lynne Reinner Publishers, Inc.

Snow, R.C., T.E. Slanger, F.E. Okonofua, F. Oronsaye, and J. Wacker. 2002. Female genital cutting in southern urban and peri-urban Nigeria: Self-reported validity, social determinants and secular decline. *Tropical Medicine and International Health* 7(1): 91-100.

Tostan. 1999. Eclosion au Sénégal: Pourquoi les populations abandonnent la pratique de l'excision. Washington, D.C.: USAID.

Toubia, N. 1993. *Female genital mutilation: A call for global action*. New York: Women, Ink.

Toubia, N. 1994. Female circumcision as a public health issue. *New England Journal of Medicine*. 331(12): 712-716.

Toubia, N.F. and E.H. Sharief. 2003. Female genital mutilation: Have we made progress? *International Journal of Gynecology and Obstetrics* 82: 251-261.

Trangsrud, K. 1994. Female genital mutilation: Recommendations for education and policy. *Carolina Papers in International Health and Development*, Vol. 1, No. 1. University Center for International Studies, University of North Carolina at Chapel Hill: Chapel Hill, North Carolina.

U.S. Agency for International Development (USAID). 2000. *USAID policy on female genital cutting (FGC)*. Washington, D.C.: USAID.

World Health Organization (WHO). 1996. *Female genital mutilation*: *Information kit*. Geneva: WHO.

World Health Organization (WHO). 1998. *Female genital mutilation: An overview.* Geneva: WHO.

World Health Organization (WHO). 1999. *Female genital mutilation programmes to date: What works and what doesn't. A review.* Geneva: WHO.

Yoder, P.S. and M. Mahy. 2001. *Female genital cutting in Guinea: Qualitative and quantitative research strategies.* DHS Analytical Studies No. 5. Calverton, Maryland: Macro International Inc.

Yoder, P.S., P.O. Camara, and B. Soumaoro. 1999. *Female genital cutting and coming of age in Guinea.* Calverton, Maryland: Macro International Inc.

Appendix

Female Genital Cutting Module for the Women's Questionnaire

Female Genital Cutting Module for the Men's Questionnaire

FEMALE GENITAL CUTTING MODULE [1]

(For Female Questionnaire)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
001	Have you ever heard of female circumcision?[2]	YES ..... 1 NO 2	–➢003
002	In a number of countries, there is a practice in which a girl may have part of her genitals cut. Have you ever heard about this practice?	YES ..... 1 NO 2	–➢END
003	Have you yourself ever had your genitals cut?	YES ..... 1 NO 2	–➢009
004	Now I would like to ask you what was done to you at this time. Was any flesh removed from the genital area?	YES ..... 1 NO ..... 2 DON'T KNOW 8	–➢006
005	Was the genital area just nicked without removing any flesh?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
006	Was your genital area sewn closed?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
007	How old were you when this occurred? IF THE RESPONDENT DOES NOT KNOW THE EXACT AGE, PROBE TO GET AN ESTIMATE.	AGE IN COMPLETED YEARS ..... ☐☐ DURING INFANCY ..... 95 DON'T KNOW 98	
008	Who cut (or nicked) the genitals?[3]	TRADITIONAL TRAD. "CIRCUMCISER"..... 11 TRAD. BIRTH ATTENDANT . 12 OTHER TRADITIONAL _____ 16 (SPECIFY) HEALTH PROFESSIONAL DOCTOR ..... 21 TRAINED NURSE/MIDWIFE 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98	
009	CHECK 214 AND 216: HAS AT LEAST ONE LIVING DAUGHTER ☐ ➢ HAS NO LIVING DAUGHTER ☐ _____		–➢019

010	Have any of your daughters had her genitals cut? IF YES: How many?	NUMBER CIRCUMCISED ..... ┌──┬──┐ │ │ │ └──┴──┘ NO DAUGHTER CIRCUMCISED 95	–➢018
011	To which of your daughters did this happen most recently? (DAUGHTER'S NAME) INTERVIEWER: CHECK 212 AND RECORD THE LINE NUMBER FOR THE DAUGHTER	DAUGHTER'S LINE NUMBER FROM Q212 ┌──┬──┐ │ │ │ └──┴──┘	
012	Now I would like to ask you what was done to (NAME OF THE DAUGHTER FROM Q.011) at this time? Was any flesh removed from her genital area?	YES ..... 1 NO ..... 2 DON'T KNOW 8	–➢014
013	Was her genital area just nicked without removing any flesh?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
014	Was her genital area sewn closed?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
015	How old was (NAME OF THE DAUGHTER FROM Q.011) when this occurred? IF THE RESPONDENT DOES NOT KNOW THE AGE, PROBE TO PROBE TO GET AN ESTIMATE.	AGE IN COMPLETED YEARS ..... ┌──┬──┐ │ │ │ └──┴──┘ DURING INFANCY ..... 95 DON'T KNOW 98	
016	Who cut (nicked) the genitals?[3]	TRADITIONAL TRAD. "CIRCUMCISER" ..... 11 TRAD. BIRTH ATTENDANT . 12 OTHER TRADITIONAL _____ 16 (SPECIFY) HEALTH PROFESSIONAL DOCTOR ..... 21 TRAINED NURSE/MIDWIFE 22 OTHER HEALTH PROFESSIONAL _____ 26 (SPECIFY) DON'T KNOW 98	

017	At the time of the genitals were cut or afterwards, did (NAME OF THE DAUGHTER FROM Q.012) have any of the following: Excessive bleeding? Difficulty in passing urine or urine retention? Swelling in the genital area? Infection in the genital area? / Wound that did not heal properly?	YES NO DK EXCESSIVE BLEEDING ..... 1 2 8 DIF. IN PASSING URINE/ URINE RETENTION . 1 2 8 SWELLING..... 1 2 8 INFECTION/NOT HEAL PROPERLY..... 1 2 8	➢019
018	Do you intend to have this genital cutting done to any of your daughters in the future?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
019	What benefits do girls themselves get if they undergo this genital cutting? PROBE: Any other benefits? RECORD ALL MENTIONED.	CLEANLINESS/HYGIENE .....A SOCIAL ACCEPTANCE .....B BETTER MARRIAGE PROSPECTS ..... C PRESERVE VIRGINITY/PREVENT PREMARITAL SEX..... D MORE SEXUAL PLEASURE FOR THE MAN E RELIGIOUS APPROVAL .....F OTHER _____ X (SPECIFY) NO BENEFITS .....Y	
020	What benefits do girls themselves get if they do not undergo this genital cutting? PROBE: Anything else? RECORD ALL MENTIONED.	FEWER MEDICAL PROBLEMS .A AVOIDING PAIN .....B MORE SEXUAL PLEASURE FOR H MORE SEXUAL PLEASURE FOR T FOLLOWS RELIGION .....E OTHER _____ X (SPECIFY) NO BENEFITS .....Y	
021	Would you say that this practice is a way to prevent a girl from having sex before marriage or does have no effect on premarital sex?	PREVENT SEX ..... 1 NO EFFECT ..... 2 DON'T KNOW 8	
022	Do you believe that this practice is required by your religion?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
023	Do you think that this practice should be continued, or should it be discontinued?	CONTINUED ..... 1 DISCONTINUED..... 2 DEPENDS ..... 3 DON'T KNOW 8	

024	Do you think that men want this practice to be continued, or discontinued?	CONTINUED ..... 1 DISCONTINUED ..... 2 DEPENDS ..... 3 DON'T KNOW 8	

[1] This module can be inserted in different places of the questionnaire according to the other modules used. For this reason, the module is now numbered 000.
[2] Wording should be adapted locally.
[3] Coding categories to be developed locally and revised based on information collected before the survey and on the pretest; however, the broad categories must be maintained. We are only interested in the detailed coding categories for "health professional" in the countries where health professionals perform a large amount of circumcisions.

FEMALE GENITAL CUTTING MODULE [1]

(For Male Questionnaire)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
001	Have you ever heard of female circumcision?[2]	YES ..... 1 NO 2	–➢003
002	In a number of countries, there is a practice in which a girl may have part of her genitals cut. Have you ever heard about this practice?	YES ..... 1 NO 2	–➢END
003	What benefits do girls themselves get if they undergo this genital cutting? PROBE: Anything other benefits? RECORD ALL MENTIONED.	CLEANLINESS/HYGIENE .....A SOCIAL ACCEPTANCE .....B BETTER MARRIAGE PROSPECTS ..... C PRESERVE VIRGINITY/ PREVENT PREMARITAL SEX ..... D MORE SEXUAL PLEASURE FOR T RELIGIOUS APPROVAL .....F OTHER _____ X (SPECIFY) NO BENEFITS .....Y	
004	What benefits do girls themselves get if they do not undergo this genital cutting? PROBE: Anything else? RECORD ALL MENTIONED.	FEWER MEDICAL PROBLEMS .A AVOIDING PAIN .....B MORE SEXUAL PLEASURE FOR H MORE SEXUAL PLEASURE FOR T FOLLOWS RELIGION .....E OTHER _____ X (SPECIFY) NO BENEFITS .....Y	
005	Would you say that this practice is a way to prevent a girl from having sex before marriage or does have no effect on premarital sex?	PREVENT SEX ..... 1 NO EFFECT ..... 2 DON'T KNOW 8	
006	Do you believe that this practice is required by your religion?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
007	Do you think that this practice should be continued, or should it be discontinued?	CONTINUED ..... 1 DISCONTINUED ..... 2 DEPENDS ..... 3 DON'T KNOW 8	
008	Do you think that women want this practice to be continued, or discontinued?	CONTINUED ..... 1 DISCONTINUED ..... 2 DEPENDS ..... 3 DON'T KNOW 8	

[1] This module can be inserted in different places of the questionnaire according to the other modules used. For this reason, the module is now numbered 000.

[2] Wording should be adapted locally.

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