Technical Brief

New Projections of the Number of Girls at Risk of Female Genital Mutilation Between 2015 and 2030

Publication Date: May 2018

Key Words: Female Genital Mutilation, Harmful Practices, Population, Demography, Survival Analysis, Adolescents, Data

Female genital mutilation (FGM) is a harmful practice that violates the human rights of women and girls, and brings about notable short- and long-term health risks. In 30 countries where data exist, an estimated 200 million girls and women have been subjected to FGM. United Nations Member States have committed to eliminating the practice by 2030 within the framework of the 2030 Agenda on Sustainable Development. This ambitious target cannot be achieved, however, without knowing the precise number of at-risk girls and women.

To date, estimates of this number have been subject to a variety of limitations. The new figures presented in this technical brief are based on recent, nationally representative survey data in 25 countries. We explicitly model the age pattern of FGM using survival analysis and estimate risk by age. Combining these results with the latest age-specific population estimates and projections compiled by the United Nations Population Division, we obtain more refined estimates of the population likely to be affected by FGM between 2015 and 2030, if current practices continue.

Limitations of previous estimates

Policymakers and programme specialists need to know the FGM-risk profile of girls by age in a given country in order to precisely predict how many girls may undergo FGM per year. To our knowledge, such information does not yet exist. The prevalence observed among older women is often applied to younger age cohorts in order to estimate risk.

Due to data limitations, previous studies were based on FGM data on women aged 15 to 49 years old, even though FGM usually occurs during childhood or adolescence. This increases recall bias and creates a considerable time lag between

when FGM took place and when it was reported in a household survey. This limits knowledge of current FGM status and trends.

Motivation for a new approach

In this brief, we present new estimates of the single-year, age-specific risk of FGM, and the number of girls projected to undergo it between 2015, the start of the 2030 Agenda, and its conclusion in 2030.This approach is more refined than previous ones and results in more precise estimates.

First, it matches the single-year age at cutting with single-year age cohorts, and does not apply a coarse prevalence rate across multiple cohorts with notably different FGM experiences. Second, it incorporates newly available data on the FGM status of girls aged 0 to 14, without the implicit assumption that FGM patterns for older women are representative of younger ones. The use of data from more recently born cohorts should reduce the time lag between the occurrence and recording of FGM.

Source of Data

For all 25 countries included in this analysis, except Indonesia, the most recent Demographic and Health Survey (DHS) or Multiple Indicator Cluster Survey (MICS) was used. In Indonesia, the Riset Kesehatan Dasar health survey (RISKESDAS) served as the basis for analysis.

Before 2010, the DHS and MICS surveys collected data from women aged 15 to 49 years old at the time of the survey. Since 2010, the surveys have routinely asked all women about the FGM status of all living daughters and the age when the practice occurred.

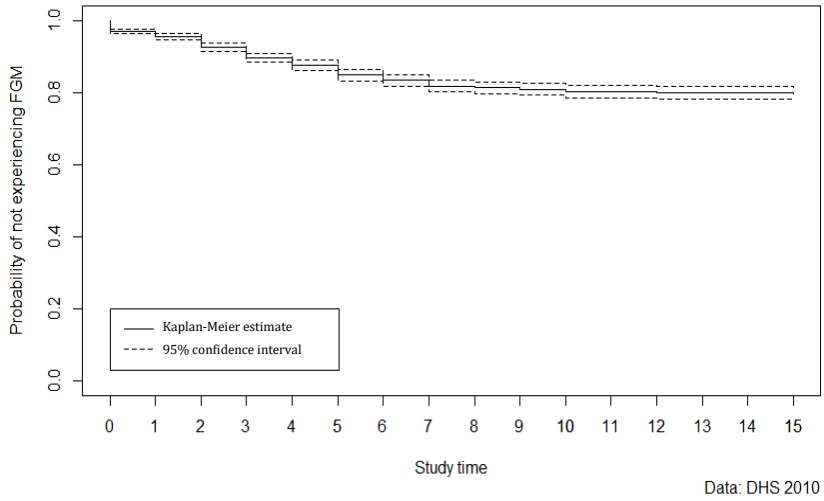
For the estimation of girls at risk, we used the latest population estimates and projections published by the United Nations in its World Population Prospects.

Methodology[1]

We apply survival analysis to estimate the probability of girls aged 0 to 14 experiencing FGM during each year of life at risk of FGM, at age 0, at age 1 and at age 2. This approach was chosen as data for girls younger than 15 are considered censored. The FGM status at the time of the survey cannot be assumed to be the final one as they might undergo the practice at a later age. In the next step, we estimate the survival function as the probability of not having experienced FGM up to a certain age.

Figure 1 represents a sample output of this analysis, which describes the estimated probability of not experiencing FGM at a certain age between ages 0 and 14. The general downward trend results from the fact that each year a certain number of girls are subjected to FGM. As the time of cutting is discrete (i.e., years), the result is a step function with a downward trend.

Figure 1: Survival curve for girls at risk between ages 0 and 14, Burkina Faso



To project the number of girls who will undergo FGM each year, the probability of being cut, represented in Figure 2 by the vertical connections of each step, is multiplied by the number of girls alive, in the age group in the specific year, minus

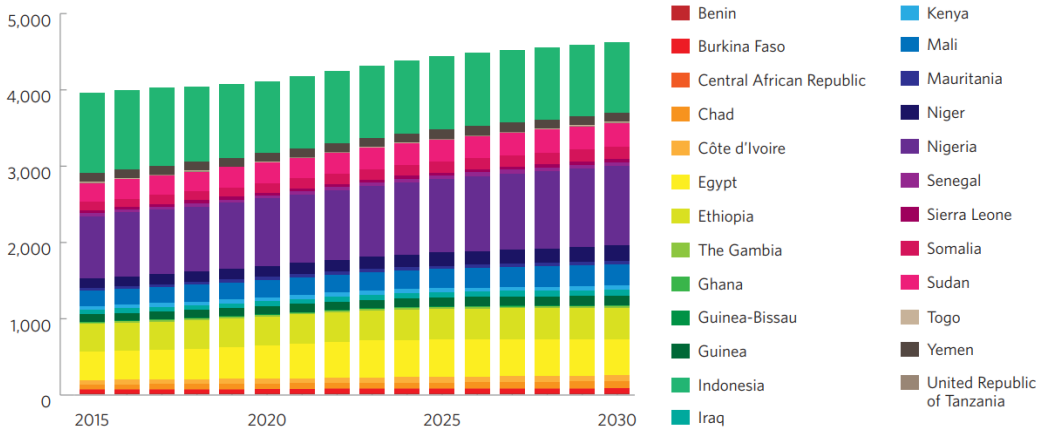
[1] A more detailed description of the methodology will shortly appear in an academic paper.

the number of girls already subjected to FGM at an earlier stage. The numbers of girls cut at earlier ages are estimated via deducting the number of girls who have not "survived" until the current period, i.e., who have previously been through FGM. In Indonesia, the share of girls cut before the age of 1 year was applied to the new age cohort born every year from 2015 to 2030. This is a conservative estimate given that precise ages of FGM could not be calculated from the available summary data.

Results

On a global level, we estimated that the number of girls at risk of FGM each year will increase from just under 3 million in 2015 to 3.7 million in 2030. With the inclusion of data for Indonesia, the annual estimates of girls at risk are approximately 1 million girls higher for each year. This amounts to a cumulative total of 68 million girls at risk between 2015 and 2030.

Figure 2: Number of girls expected to be cut, per year, in millions



Our incidence estimates are higher than previous estimates, for two reasons. First, as we explicitly factor in future population dynamics, estimates of around 4 million in 2015 slowly rise to 4.6 million in 2030. Second, we have included girls experiencing FGM in the first year of life in Indonesia.

Discussion

The results outlined in this brief show that demography matters, and population size and future population growth are key factors that will shape absolute FGM risk in future years.

Further analysis and research should address some key limitations to the methodology presented in this brief:

1. Nationally representative data on FGM incidence for all countries of the world are not available; they are limited to countries targeted in the last 10 years by a MICS or DHS survey that included a full FGM module.
2. At this point, only the most recently available data point was taken into account, which is assumed to remain constant until 2030. Therefore, the estimates and projections at hand have to be interpreted as the number of girls projected to undergo FGM by 2030 if current levels prevail.
3. The Gambia, Iraq, Niger and Yemen do not collect data on girls younger than 15. When using the data for these countries, the closest age group of women aged 15 to 19 is used to estimate the number of girls projected to be cut.
4. All survey data rely on reported FGM status, either by the mother of the girl or the woman herself. Therefore, our estimates assume that women accurately report FGM status, irrespective of national laws and social norms. If a woman could only vaguely recall when she or her daughter experienced FGM, the precise age was estimated by applying the same distribution as observed among women who could remember the exact year in the same survey.
5. The estimates at hand assume that the status at 14 years old is the final FGM status. This is a reasonable assumption in most cases. Yet, in Kenya, for example, a non-negligible amount of FGM occurs after this cut-off.

Conclusion

This analysis of FGM data is the first multi-country initiative to explicitly model the age pattern of FGM when estimating the future risk to girls. It is therefore

possible to capture population dynamics in each country at a more granular level. This significantly improves the precision of estimates.

Our estimates imply that even under constant levels of FGM, globally, more and more girls will be affected each year due to projected population dynamics in the countries under consideration. This highlights the importance of factoring in underlying population dynamics when estimating FGM risk. From a policy and programmatic point of view, increased investment and efforts are required to halt this trend. Overall, the observed reductions in the prevalence of FGM are not sufficient to offset the expected population growth. Intensifying interventions are critically needed to accelerate ongoing efforts and achieve meaningful impacts in eliminating the practice.

This technical brief has been prepared jointly by Kathrin Weny, Romesh Silva, Berhanu Legesse, Rachel Snow and Nafissatou Diop from UNFPA's Technical Division - Population and Development Branch, and Gender, Culture and Human Rights Branch.