

Trend of female genital mutilation/cutting in Senegal: What can we learn from successive household surveys in sub-Saharan African countries?

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ABSTRACT

A deeper understanding of trends in female genital mutilation/cutting (FGM/C) provides evidences as to how quickly and widely the practice is being abandoned. Data from two consecutive Senegalese DHS surveys (2005 and 2010) were used to estimate a Bayesian geo-additive mixed model and map changes in FGM/C prevalence at provincial levels. While no significant changes in FGM/C prevalence are found at the national level, mapping residual spatial effects reveals mixed regional patterns (prevalence increased in Dakar and decreased in Kolda and Matam provinces). Geographic location is an important correlate of changes in prevalence of FGM/C, suggesting that community factors, above and beyond individual factors, play a crucial role in the perpetuation, spread, or decline in the practice. These findings fit with predictions of social convention theory, which suggests that FGM/C is upheld by interdependent expectations, and when such expectations are challenged within a community, the possibility for abandonment is opened.

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Extended Abstract

Background

Over the last several decades, global efforts to end female genital cutting/mutilation (FGM/C) have intensified through combined efforts of international and non-governmental organizations, governments, and religious and civil society groups. One question asked by donors, program implementers and observers alike is whether there is any evidence that FGM/C is declining. For many years this question was not easily answerable due to the lack of nationally representative data. In the last two decades, however, reliable data have been generated in numerous countries through major household surveys, including repeat cross-sectional surveys. What can we learn

from these data? We explore this question by analyzing data from two successive household surveys in Senegal. A deeper understanding of trends in female genital mutilation/cutting (FGM/C) across the generations provides evidences as to how quickly and widely the practice is being abandoned.

Methods

Participants were 14,602 and 14,228 respondents from two consecutive Senegal Demographic and Health Surveys from 2005 to 2010 (mean age 27.8 years, FGM/C prevalence 30.1% in 2005; 27.9 years, FGM prevalence of 28.1% in 2010). A Bayesian geo-additive mixed model based on Markov Chain Monte Carlo techniques was used to map the change in the spatial distribution of FGM prevalence at the provincial level during the five-year period, accounting for important risk factors.

Findings

Overall, the prevalence of FGM/C at that national level changed little over the 5-year period, but the mapping of trend in residual spatial effects at the provincial level suggested different regional patterns. A pronounced change in odds ratios in Dakar and Diourbel, Kolda and Matam provinces from 2005 to 2010 were observed following adjustment for spatial autocorrelation. Prevalence in Dakar province increased from 2005 (17.7%) to 2010 (20.4%). High prevalence southern provinces (Kolda and Matam) was a reduction between 2005 (92.8%; 94.4%) and 2010 (85.9%; 86.9%). Southern provinces remained consistently among higher prevalence areas during the period (Kedougou, Tambacounda, Sedhiou and Kolda) and provinces such as Louga and Diourbel remain consistently among areas with lower prevalence. Other significant factors were socio-demographic and ethnicity.

Interpretation

Findings from two consecutive surveys reveal that while no significant changes in FGM/C prevalence are found at the national level, mixed changes are visible at the provincial level. Spatial analysis reveals that geographic location is an important correlate of changes in prevalence of FGM/C, suggesting that community factors, above and beyond individual factors, play a crucial role in the perpetuation, spread, or decline in the practice of FGM/C. These novel findings fit with predictions of theory on social norms and conventions which suggest that the practice is upheld by interdependent expectations regarding the practice, and when such expectations are challenged within a community, the possibility for abandonment is opened.