ADDRESSING FGM IN AFRICA AND THE MIDDLE EAST: WAYS FORWARD FOR RESEARCH

IDENTIFYING AND PRIORITISING RESEARCH TO END FEMALE GENITAL MUTILATION (FGM)

African
Middle Eastern
Australian
Research
Network
To End FGM

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African Middle Eastern Australian Research Network To End FGM

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Executive Summary

Female genital mutilation (FGM), also known as female genital circumcision or cutting, is recognised as a form of violence against women and girls and violates human rights. This practice, rooted in culture and tradition, has been linked to immediate and long-term health implications; physically, psychologically, sexually, and psychosocially, resulting in injury, disability, and death.

Research is essential to prevent FGM efforts to understand the distribution and determinants of FGM, the reasons why it is practiced and associated risk factors in specified populations at community, provincial, national, regional and global levels. This knowledge is central to developing new tools and approaches to better care for affected women and girls and change behaviour to end FGM.

While key organisations such as the African Coordinating Centre for abandonment of FGM at the University of Nairobi and The Population Council have been active in leading research, it is not clear what the future focus of FGM research should be in Sub-Saharan Africa (SSA) and the Middle East and North Africa (MENA). It is also unknown what the FGM research needs are of countries and regions and what support researchers require to undertake this work.

In response to the lack of consensus regarding the FGM research needs of SSA and MENA countries and the strategic focus this should take, alongside the inequities in SSA, MENA led research, and publications, a community of practice and a Delphi survey were proposed.

This report provides a summary of the findings of an initiative led the key stakeholders from the African Centre for the Abandonment of FGM at the University of Nairobi and researchers at the University of Technology (UTS) that was funded by the Australia-Africa Universities Network Partnership.

Thirty-seven academic researchers from SSA and MENA participated in the two-hour forum in June 2021, where experts in statistics, law, health economics, social science and medicine made presentations. Forty researchers contributed to two rounds of the Delphi Survey the initial findings were presented at the forum. Key knowledge gaps identified by participants included FGM prevention, drivers and determinants, law and policy, health outcomes,

prevalence and other trends, health care, FGM and men and health economics. Early career researchers' top five capacity development needs were skills in systematic reviews and scoping reviews, qualitative methods, spatial analysis, statistical analysis of the Demographic and Health Survey (DHS) data, and translation of findings into policy and practice. In line with the Delphi survey, four thematic areas of work have been identified and participants will be invited to select their areas of interest to discuss research, plans for publications and grants that a facilitator will lead. For early careers, researchers a series of workshops are planned to build skills in response to the survey's findings. Two ECRs will coordinate this and each session facilitated by a researcher with skills in the area.

Introduction

Female genital mutilation (FGM) also known as female genital circumcision or cutting, is a practice that involves the partial or complete removal of the external female genitalia or any other injury to the genitalia (WHO 2016). This procedure is performed on infant girls and adult women. There are four different types of FGM. The most common type (1) entails the excision of all or part of the clitoris and the labia minora. The most extreme form is type 3 or infibulation, which entails removing all or part of the external genitalia and the stitching of the two cut sides, closing the vagina to varying degrees (WHO 2016).

FGM is internationally recognised as a form of violence against women and girls and a violation of human rights (CRR 2008, WHO 2018). It is associated with adverse obstetric outcomes and immediate and long-term physical, sexual and psychosocial complications resulting in injury, disability, and death (WHO 2018). The practice is deeply rooted in culture and tradition.

Global initiatives to address FGM

The Sustainable Development Goal (SDG) target 5.3.2, adopted by all United Nations Member States in 2015 (UN 2015) focuses on eliminating all harmful practices, including FGM. Some countries have ratified several international treaties and conventions that declare their country's resolve to protect human rights and protect women and girls against violence. The Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) (OHCHR 1979) includes the 1990 General Recommendation No. 14 on Female Circumcision that recommended that "States parties take appropriate and effective measures intending to eradicate the practice of female circumcision" (CEDAW 1990). Article 19 of the United Nations Convention on the Rights of the Child (OHCHR 1989) is relevant to protecting children against FGM (OHCHR 1989). The International Covenant on Civil and Political Rights recognises the inviolability of the physical body and emphasises the importance of personal autonomy and the self-determination of human beings over their bodies (OHCHR 1966).

Drivers of FGM

The practice is deeply rooted in culture, with social obligation and marriageability considered two of the most important reasons for its continuation (UNICEF 2013). FGM has also been linked with a girl's transition from childhood to womanhood (Kaplan, Cham et al.

2013) rendering her “marriageable” (Ahmady 2015, Taher 2017). For some communities, FGM is perceived to be a religious requirement. However, it is not formally described in Holy books such as the Quran or the Bible. FGM is related to the family honour to maintaining premarital virginity and marital fidelity (Lindorfer 2007). FGM is also performed for aesthetic reasons and for fear that the girl will face exclusion from resources and opportunities as a young woman (UNICEF 2010). An uncut girl is regarded by some as a burden to her family and as eligible for marriage, meaning that she cannot fetch a “bride price” for her parents. Therefore, undergoing the procedure is also perceived to signify loyalty to one’s family, society, culture, and faith (Mohammed, Seedhom et al. 2018).

The Medicalisation of FGM

FGM in many countries is conducted by traditional circumcisers who often play important roles in assisting during antenatal and delivery periods, and as such are given specific titles. Due to the perception that FGM is safer when medicalised, healthcare providers perform it in some countries such as Egypt, Kenya and Malaysia (Kimani, Kabiru et al. 2020, Nina, Naomi et al. 2020, Rashid, Iguchi et al. 2020) despite it being illegal. The World Health Organization (WHO) and other international and national agencies and governments have been advocating the abandonment of FGM for many decades (UNICEF 2013, WHO 2016). They strongly oppose the notion of health professionals carrying out this procedure (UNICEF 2016).

Global Prevalence of FGM

While the prevalence of FGM is decreasing and varies across countries (Kandala, Ezejimofor et al. 2018) most of these countries are experiencing a high rate of population growth, meaning that the number of girls who undergo FGM will continue to grow if prevention efforts are not significantly scaled up (UNFPA 2016). UNICEF has estimated that more than 200 million girls and women have undergone Female Genital Mutilation (FGM) globally, and three million girls may be at risk of undergoing FGM every year (UNICEF 2014). About 44 million of those who have undergone FGM are 14 years or below, with most of the cutting occurring when the girl was under five years old.

FGM occurs in more than 40 countries throughout the world. It is practiced by communities in 28 African countries, communities in the southern parts of the Arabian Peninsula and along the Persian Gulf and in communities in India, Indonesia and Malaysia (UNICEF 2013,

Koski and Heymann 2017). The practice is highly prevalent in countries such as Egypt, Mali, Sudan, and Somalia. However, significant declines have occurred in Africa, with a reduction from 73.6% to 25.4% between 1996 and 2017 in West Africa, and the greatest reduction of 71.4% to 8.0% between 1995 and 2016 among 0-14-year-olds in East Africa. A sharp contrast is reflected in Western Asia where there has been a 15.9% rise in the prevalence of FGM between 1997 and 2013 (Kandala, Ezejimofor et al. 2018).

Figure 1 presents a map showing the percentage of women and girls aged 15-49 years who have undergone FGM in countries where prevalence data is available. Several countries in which standardised household surveys are not implemented have been included in this map. These figures have been calculated using tools such as the Demographic and Health Survey (DHS) or Multiple Indicator Cluster Survey (MICS). Figure 2. provides a more detailed snapshot of the prevalence rates across the African continent and the Middle East.

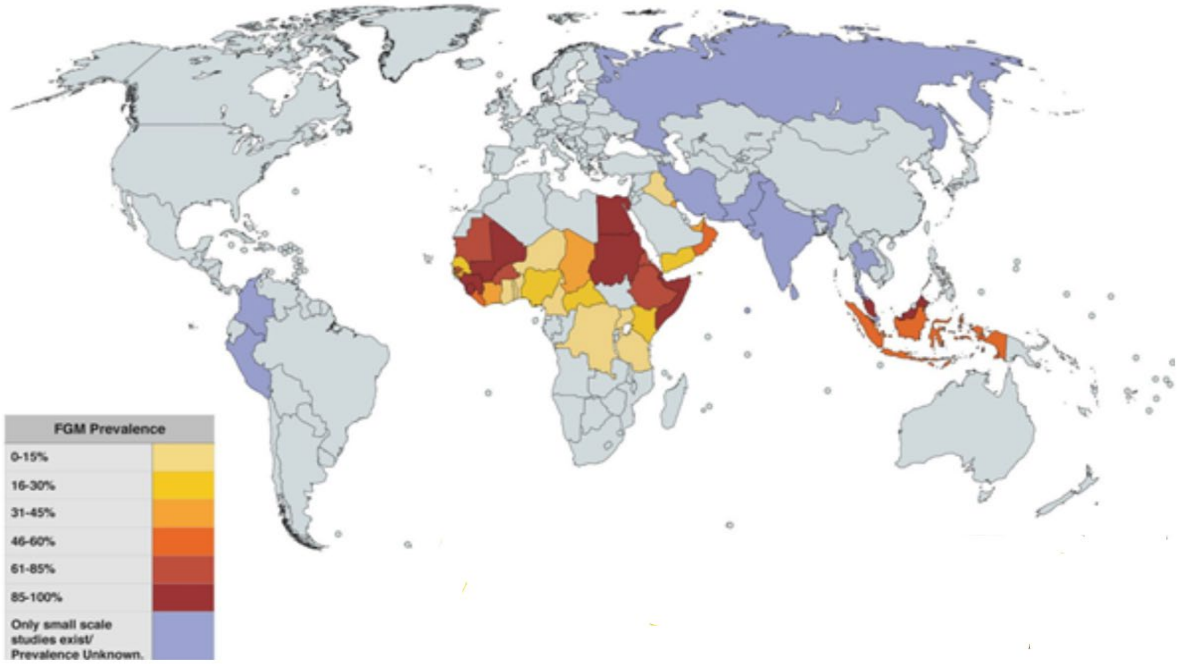


Figure 1. Global distribution of FGM prevalence across countries and regions

https://tzedek.org.uk/news/zero-tolerance-for-female-genital-mutilation-why-change-needs-to-come-from-within/

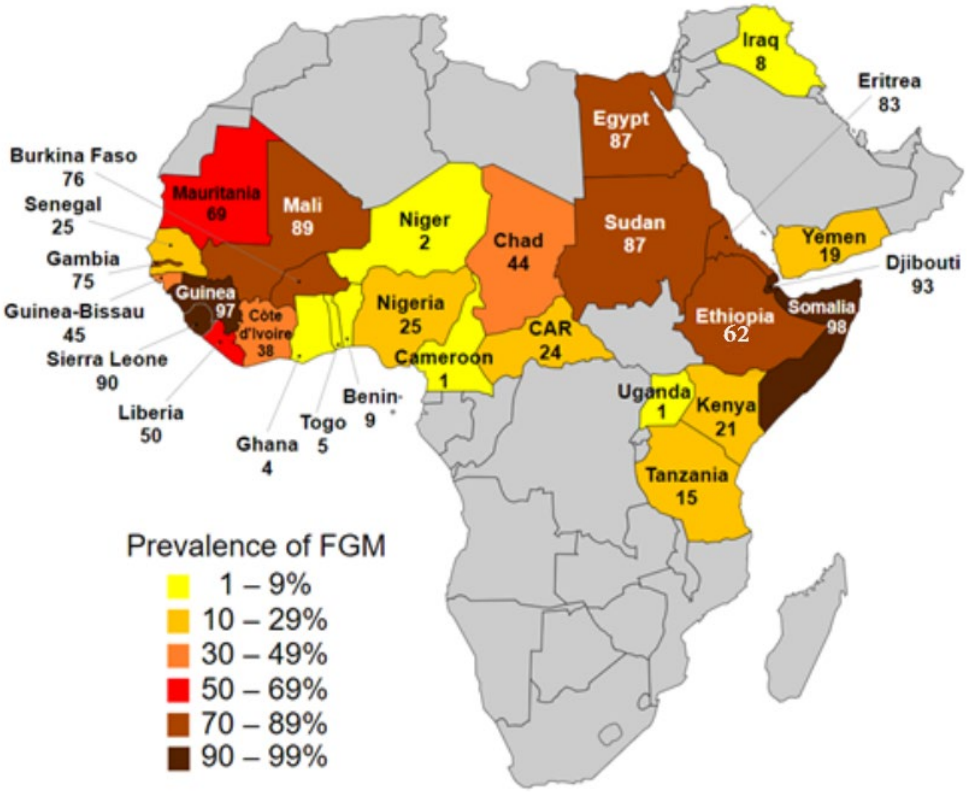


Figure 2 The Prevalence of FGM across the African and Middle East

https://commons.wikimedia.org/wiki/File:FGM_prevalence_UNICEF_2016.svg

FGM has also been reported among migrant and refugee communities in Europe, Canada, North America, Australia and New Zealand (UNHCR 2013, UNICEF 2013). Modelling based on census data in Australia has estimated that there are 53,000 migrant girls and women with FGM in the country, the majority of which whom have undergone the practice before migration (AIHW 2019). However, prevalence data for many of these countries is largely unavailable.

FGM research output in Africa and the Middle East

Research is essential to efforts to understand the distribution and determinants of FGM including the frequency of occurrence and associated pattern as well as the reasons why it is practiced and risk factors in specified populations at community, provincial, national, regional and global levels. Such data can be used to establish trends that can be used to model what the future context may look like. This research is central to developing new tools and approaches to better care for affected women and girls and prevent FGM. Applied

research can help us to test interventions to ascertain their impact and tailor for context and scale to change behaviour to end FGM.

There have been some efforts to identify the research output in the area of FGM across Africa and the Middle East. Three papers have attempted to examine publications across different time frames uses different approaches.

A bibliometric analysis of literature on female genital mutilation: (1930 – 2015) found that of the 1035 peer-reviewed publications over this period, 688 (66.47 %) were research articles. Of the ten top countries with the greatest share of publications, the US and UK authorship dominated with 162 and 116 articles, respectively. While only authors from Nigeria and Egypt represented countries where FGM is traditionally practiced contributing 52 and 36 articles in the top ten county list (Sweileh 2016). Overall, authors from 14 of the 27 African countries where FGM prevalence rates are available contributed to FGM 151 publications, representing 15 % of worldwide publications on FGM (1930-2015). Approximately 40 % of articles published by authors from these African countries were produced through international collaboration. Among the six Middle Eastern countries included 24 articles represented just over 2 percent of all output. The active institutions with at least five published articles on FGM (1930 – 2015) included four Egyptian and three Nigerian universities and one university in Ethiopia and one in Benin (Sweileh 2016).

A systematic review sought to describe the research output (1971-2011) in African countries. While this review found that most studies were concerned with Africa as a region (33.3%), findings concur with Sweileh's (2016) work identifying Nigeria (19.2%) and Egypt (10.6%) as the focus of the majority of studies. Most first authors were affiliated to non-African countries (60.6%): among them 21.2% were US-based, 4% were from African institutions, and 16.2% from Nigeria (Mpinga, Macias et al. 2016).

Another scoping review examined FGM research output in Africa over 10 years, (2007 - 2016) and identified 28 peer-reviewed primary research articles that were conducted in Africa with the top five countries being Egypt (6 papers), Ethiopia, Gambia and Nigeria (4 papers each) and Burkina Faso (2 papers) (Obiora, Maree et al. 2020). As with the previous studies, this review found that not all authors of these papers are from African institutions and four papers did not include any African authors

African and Middle Eastern Programs in FGM Research

The Population Council, an international, non-profit, non-governmental organization has researched FGM in Africa. The Population Council, undertook a program of research (2016-2020) funded by the Government of the United Kingdom and in partnership with UNFPA-UNICEF Joint Programme on FGM, the Africa Coordination Centre for Abandonment of Female Genital Mutilation/Cutting (Kenya) and the Gender and Reproductive Health & Rights Centre in Sudan. The goal of this research was to "Generate evidence to influence strategic investments, policies, and programs to end FGM" (Muteshi-Strachan 2016). The counties of focus were Egypt, Ethiopia, Kenya, Nigeria, Senegal, Somalia, Sudan, and the research involved multivariate analyses of DHS/MICS datasets, social network analysis of gender norms, mixed methods studies to examine health systems response, and social change and qualitative research investigating socio-cultural norms. The key lessons learned from the "Evidence to End FGM: Research to Help Girls and Women Thrive" program are:

- Understanding local variations in FGM is essential for focusing investments and tailoring abandonment programmes
- The practice of FGM and its social and cultural underpinnings are changing
- The health sector can play a central role in preventing and responding to FGM
- Laws are necessary but require social legitimacy to be effective (Ashford, Naik et al. 2020, Matanda, Meroka-Mutua et al. 2020)

The African Coordinating Centre for abandonment of FGM (ACCAF) was established in 2012 at the University of Nairobi, Kenya, with UN bodies, research institutions and Ministries of Health.

ACCAF has four objectives:

- Identify knowledge gaps and support and stimulate research in the field of female genital mutilation
- Support networking and knowledge exchange between researchers, health professionals and community workers on the abandonment of FGM
- Improve health care for women and children who have undergone FGM
- Advocate, educate and create a supportive environment for cultural change

The NGO WADI that has been promoting self-help programs since 1992 in the Middle East (Israel, Jordan and Iraq) and has been actively involved in campaigning against FGM and has produced research on FGM in addition to its advocacy work (WADI 2010).

What research do we need?

The Population Council has called for "high quality evidence as basis of our responses" to FGM (Shell-Duncan 2020). However, it is not clear what the focus of this research should be and what the needs are of various countries and regions and what support researchers require to undertake this work.

Mpinga et al. (2016) identified a dearth of research on the socioeconomic impact of FGM while the review by Obiora found that the majority of studies in their sample were quantitative (n = 17; 60.7%) and focused on prevalence, attitudes, perpetrators, and health consequences of FGM (Obiora, Maree et al. 2020). A review by Abdulcadir and Say identified several gaps in the clinical evidence, including the obstetric outcomes of women with FGM, the impact of surgical interventions (defibulation and clitoral reconstruction), and the effect of skills and training of healthcare professionals involved in the prevention and management of FGM (Abdulcadir, Rodriguez et al. 2015). Evidence on how law works to promote abandonment of FGM has been found to be lacking (Shell-Duncan 2020) and alternative rites of Passages have been highlighted as an essential area that has so far received inadequate attention (Droy, Hughes et al. 2018).

While the importance of applied research is noted by the Population Council, numerous authors have raised methodological limitations (Berg and Denison 2012, Abdulcadir, Rodriguez et al. 2015, Droy, Hughes et al. 2018). These methodological limitations highlight the complex nature of research in this field and the need for research that is designed with translation in mind from the beginning and hence underpinned by a theory of change (Strachan 2021). It has also been suggested that partnerships are vital to deliver impactful research, including South-South, North-South, or transnational collaborations (Marcusan 2020, Strachan 2021)

Overview of the Africa, Middle East Australia Research Network to End FGM initiative

In response to the lack of consensus regarding the FGM research needs of SSA and MENA countries and the strategic focus, this should take, alongside the inequities in SSA and MENA led research and publications, a community of practice and a Delphi survey were proposed.

With the support of the Australia-Africa Universities Network Partnership the key stakeholders from the African Centre for the Abandonment of FGM, at the University of Nairobi and researchers at UTS, UNSW and the University of Sydney undertook a scan of recent (2018-2021) publications by researchers from SSA and MENA countries to identify active researchers in the field. We invited 43 of these to a preliminary Zoom meeting to discuss a proposed forum and workshop and survey to establish research and capacity-building priorities.

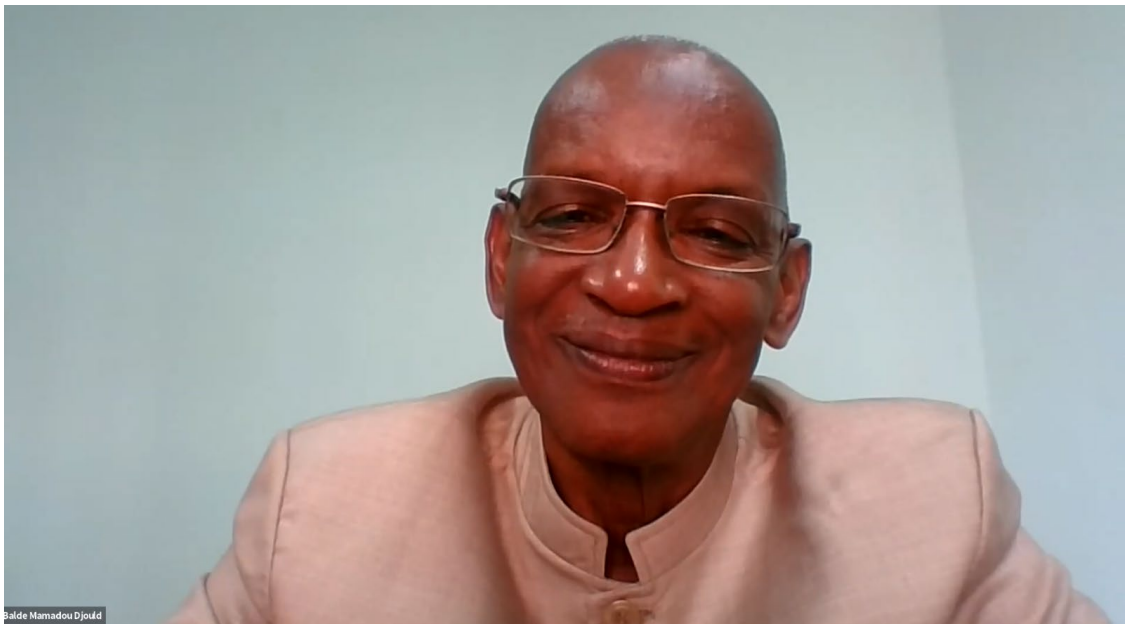


Figure 3 Professor Mamadou Dioulde Balde

Emerging Findings of the Delphi Survey

A Delphi survey was prepared using Qualtrics software and two rounds were delivered. Forty participants completed the survey. These respondents identified current research efforts on social, religious, and cultural aspects of FGM, violence and women's rights, medicalisation, criminalisation, health complications of FGM and prevalence. The key

knowledge gaps identified by participants were prevention, drivers and determinants, law and policy, health outcomes, prevalence, and other trends, health care, FGM, and men and health economics.

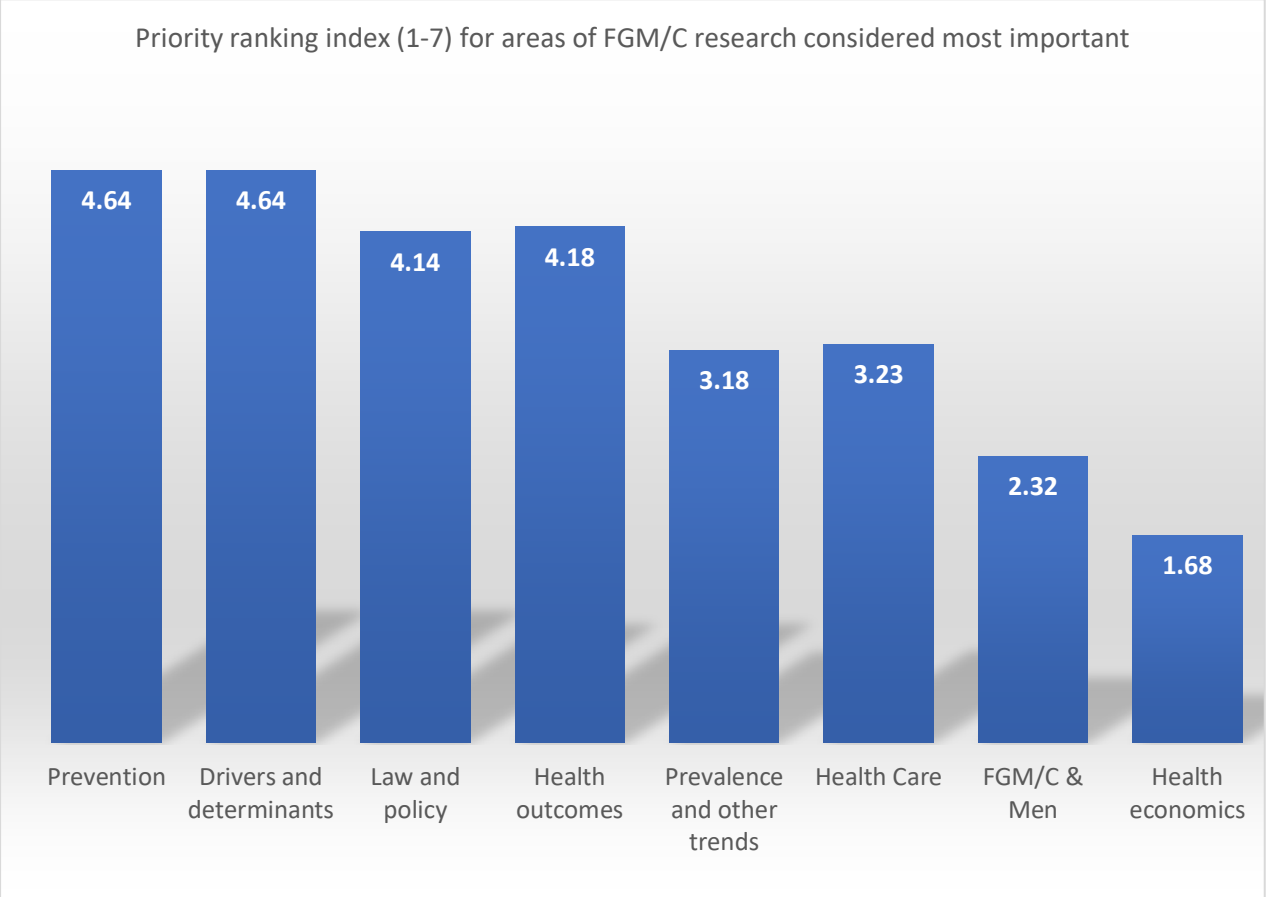


Figure 4 Key FGM knowledge gaps

The top-ten research questions participants identified were -

1. What alternative approaches can we adopt to eliminate FGM?
2. What cost-effective interventions can prevent FGM?
3. What is the effectiveness of peer-led education among the youth?
4. What is the best available evidence for collaboration in eradicating FGM?
5. Can innovative and valid measures be used to assess FGM-related change to FGM?
6. What is the role of men in the abandonment of FGM?
7. What is the role of healthcare professionals in the abandonment of FGM?

8. How can we legislate change to criminalize FGM?
9. How do health systems respond to the needs of women living with FGM and how can they be better supported?
10. What are the health care experiences and psychological, physical and sexual health outcomes of women with frequent re-infibulation?

Capacity development needs, gaps and priorities were ranked in order of importance. The top five needs were systematic reviews and scoping reviews, qualitative methods, spatial analysis, statistical analysis of the Demographic and Health Survey (DHS) data and translation of findings into policy and practice.

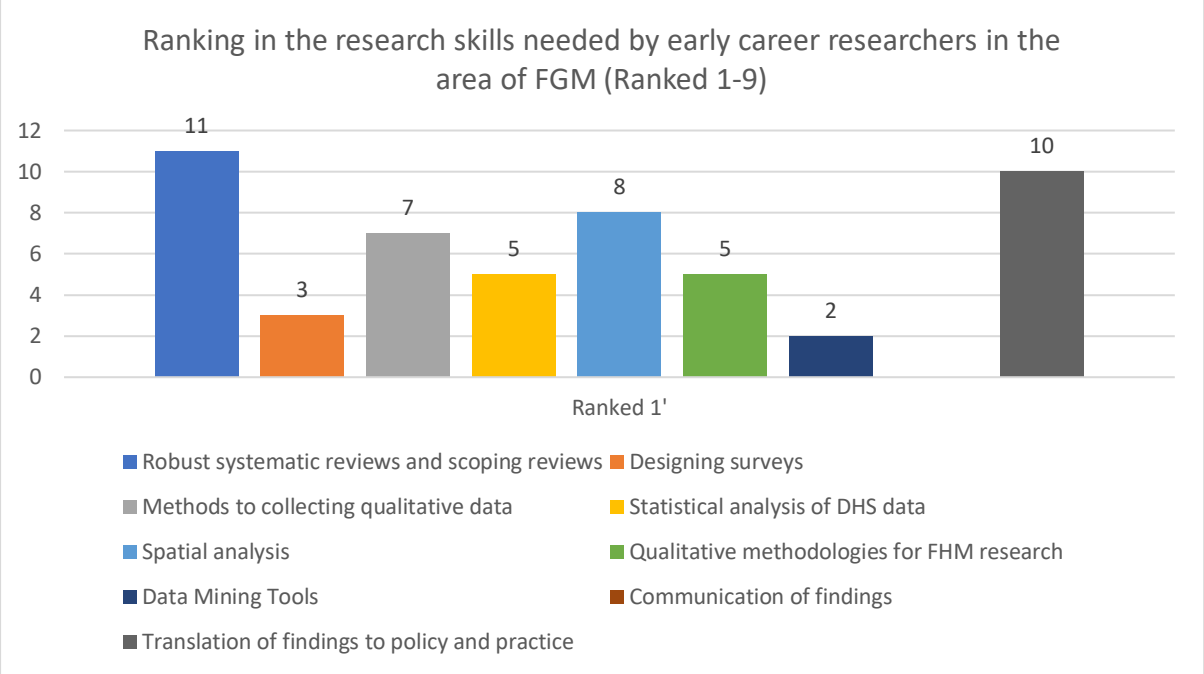


Figure 5 Researcher capacity development needs

Findings from the Forum

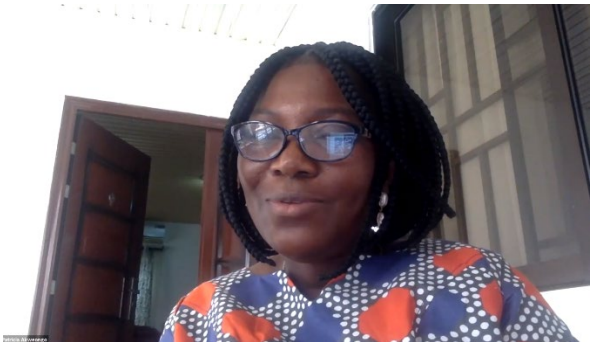
Thirty-seven academic researchers participated in the two-hour forum. Participants represented various disciplines, including medicine, nursing, public health, gender studies, and law (see Appendix 1). The meeting began with researchers' presentations and outlined the current situation concerning the prevalence of FGM and the socio-cultural, religious and clinical context of the practice across the regions (see Appendix).

Participants were then given an opportunity to ask questions and share their challenges, experiences, and ideas for research concerning their specific academic disciplines. The key discussion points are summarised below.

- Mixed methods research is important to understand better the reasons behind differences in prevalence across countries and regions, and periods.
- Household-level costing could be a helpful entry point for activists or programs with intergenerational dialogue—for example, an assessment of the costs of FGM vs. education of the girl child.
- Laws need to be more systematically applied across sectors and professionals. There is a need to examine the difference in the effect of specific laws or laws that include FGM under violence against women and the role of religion and culture in enforcing these laws. What laws best serve this girl child? Deterrence versus enforcement and prosecution. The law may be best at the former?
- We must link with any interventions aimed at promoting child welfare to preventing FGM and child marriage.
- As FGM is more common among the uneducated and unemployed, we should be starting there.
- There is low awareness in some countries such as the UAE and research should play a role in advocacy.
- Innovative approaches are needed to advocate for women's sexual and reproductive rights.
- Multi-sectoral and multidisciplinary approaches are necessary.
- We need a comprehensive development-based approach to the prevention of female genital mutilation
- Intervention research is needed when evidence-based strategies are identified for prevention.

Professor Kandala Ngianga-Bakwin, School of Public Health, University of Witwatersrand, South Africa

Dr Satang Nabaneh, Post-doctoral Fellow at the Centre for Human Rights, Faculty of Law at the University of Pretoria, South Africa



Dr Patricia Akweongo, Head of Department for Health Policy Planning and Managemen,t School of Public Health-University of Ghana

Dr Moamar Al-Jefout, Department of Obstetrics and Gynecology, College of Medicine and Health Sciences, United Arab Emirates University

Figure 6 Speakers and participants at the forum

What Next?

Three key areas of activities are planned. In line with the Delphi survey, four thematic areas of work have been identified and participants will be invited to select their areas of interest to discuss research, plans for publications and grants that a facilitator will lead. For early careers, researchers a series of workshops are planned to build skills in response to the findings of the survey. Two ECRs will coordinate this and each session facilitated by a researcher with skills in the area.

Activity	Output	Team
Proposed thematic areas and facilitators	Plan of research activity to be decided by the groups	**Area 1:** Prevention **Facilitators:** Dr Samuel Kimani **Area 2:** Drivers and determinants **Facilitators:** Nafisa Bedri **Area 3:** Law and Policy **Facilitators:** Satang Nabaneh

		Area 4: Health Outcomes **Facilitators:** Imran O. Morhason-Bello
Proposed areas of researcher development and facilitators	Capacity building workshops	**Co-ordinator:** Salma Ahmed & Bright Ahinkora **Workshop 1:** Systematic review methods **Facilitator:** Jamlick Karumbi **Workshop 2:** Qualitative methods **Facilitator:** Carolyn Njue **Workshop 3:** Spatial analysis **Facilitator:** David Gathara **Workshop 4:** Research translation **Facilitator:** Caroline Karibu **Workshop 5:** Statistical analysis of DHS data **Facilitator:** Kandala Ngianga-Bakwin

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Appendix

- Forum Program
- Biographies of All Speakers and Facilitators
- List of Participants
- Minutes of the Forum
- Slides of all Presentations

Identifying And Prioritising Research To End Female Genital Mutilation/ Cutting (FGM/C) In Sub-Saharan Africa, the Middle East and North Africa

Time	Thursday 17th June 2021
1800 – 19.30 hrs (Syd time)	MC: Dr Samuel Kimani Africa coordinating Centre for Abandonment of FGM Welcome Professor Patrick Ndavi Coordinator of Africa coordinating Centre for Abandonment of FGM Overview of the workshop and objectives Housekeeping and group photo **FGM/C: The current situation in SSA and MENA and gaps** What we know about the prevalence of FGM/C in SSA and MENA Professor Kandala Ngianga-Bakwin The Law and FGM/C in SSA and MENA Dr. Satang Nabaneh The cost of FGM/C in SSA and MENA Dr. Patricia Akweongo The socio-cultural and religious determinants of FGM/C in SSA and MENA Professor Nafisa M. Bedri The clinical context in SSA and MENA Professor Guyo Waqo Jaldesa The Medicalisation of FGM/C in SSA and MENA Dr. Nahla G. Abdel-Tawab Question & Answer session Facilitators: Dr Samuel Kimani Africa and Dr Tammary Esho
19.30 – 20.00 hrs	**FGM/C: Identifying and prioritising research** Facilitator: Dr Carolyne Njue UTS How research can aid the prevention of FGM/C- Professor Angela Dawson presentation of the Delphi survey findings Dr Carolyne Njue UTS discussion Summary Next steps

Biographies of All Speakers and Facilitators

Professor Patrick Ndavi

Prof. Ndavi is a Kenyan trained obstetrician and gynaecologist with a Master of epidemiology and Diploma of Tropical Medicine from the London School of Hygiene and Tropical Medicine. He is currently a Professor in the Department of Obstetrics and Gynaecology at the University of Nairobi and the Coordinator of Africa coordinating Centre for Abandonment of FGM.

Professor Kandala Ngianga-Bakwin PhD

Kandala is a Distinguished Professor of Biostatistics at the School of Public Health, University of Witwatersrand, South Africa.
He was, until recently a Professor of Biostatistics & Head of Applied Statistics Research group at Northumbria University, United Kingdom (UK). He is also a Visiting Professor of Health Technology Assessment at Warwick Medical School, University of Warwick, UK.
Prior to this, he worked as Head of Health Economics and Evidence Synthesis Research Unit at the Luxembourg Institute of Health, Luxembourg and was Associate Professor in Health Technology Assessment, a joint appointment with the University of Oxford and University of Warwick. He is fluent in French, German and English. Over 20 years, his main research interests are in capacity building in Biostatistics in Africa and Bayesian statistical methods and their application to epidemiology and health including maternal and child health both in the developing countries and command economies, using large scale household data. Kandala has published widely in high impact peer review journals over 200 publications in both the field of Statistics and health in diverse populations. His three recent books are titled (1) 'Advance Techniques in modelling Maternal and child health in Africa', (2) 'Female Mutilation around the World: Analysis of Medical Aspects, Law and Practice (2018) with Springer Nature and (3) Statistical Modelling of Complex correlated and clustered data using Household surveys in Africa (2019) with Nova Science Publishers.
Google Scholar: http://scholar.google.co.uk/citations?user=mVunTywAAAAJ&hl=en

Dr. Satang Nabaneh

Dr. Satang Nabaneh is a socio-legal scholar, researcher, consultant, and human rights advocate with expertise on human rights, comparative constitutional law, and democratization. Her teaching and research focus on international human rights law and monitoring mechanisms; human rights in Africa, with particular focus on sexual and reproductive rights and women's rights; democratization in Africa and Gambian constitutional law. She holds a doctoral degree from the Centre for Human Rights, University of Pretoria, South Africa, where she researched and managed various research projects on human rights, gender and sexual and reproductive health and rights. Satang's academic work has been published in renowned peer-reviewed journals such as Health and Human Rights Journal, International Journal of Gynecology & Obstetrics, African Disability Rights Yearbook, Constitutions of the World and the yearly I·CONnect-Clough Center 2018 Global Review of Constitutional Law. https://satangnabaneh.com/

Dr. Patricia Akweongo

Dr.Patricia Akweongo is a Senior Lecturer in the Department of Health Policy Planning and Management School of Public Health-University of Ghana where she teaches a number of courses at the PhD and Masters level and does administration, supervision and research. She has a PhD in Health Economics and is currently the Head of Department for Health Policy Planning and Management. Patricia's research work and experience has been in the areas of health systems governance of social protection programmes, health systems strengthening, community engagement and empowerment, economics of health care, malaria, equity and access to health care, sexual and reproductive health, health system and health policy, Human Resource management and management strengthening, gender and cultural studies, violence, socio-economic issues on meningitis, economic evaluation, epidemiology of communicable and non-communicable diseases, etc.

Professor Nafisa M. Bedri

Prof. Bedri is a Professor of Reproductive Health, Ahfad University for Women Khartoum, Sudan. She is an experienced professor, researcher and regional trainer in the field of gender, reproductive health, management, and policy analysis skills, has written and developed several publications and training materials in these fields. Carried out several researches at national and regional levels in the area of gender and women, reproductive and child health for different bodies and collaborated with institutions at regional and international levels. An activist in the area of women's reproductive and sexual rights, maternal and child health, violence against women, girl child marriage, female genital mutilation and HIV/AIDS.

A regional consultant in FGM/C, gender-based violence, gender and HIV/AIDS, integration of gender and rights in reproductive health systems and in gender analysis of health services and training. She is currently Manager of Gender and Reproductive Health & Rights Resource Centre (GRACe).

Professor Guyo Waqo Jaldesa

Prof. Guyo holds a Master in Medicine - Obstetrics and Gynaecology from the University of Nairobi. He further holds Master of Science from the University of Edinburgh -United Kingdom. He is a Consultant Obstetrician-Gynaecologist at all the major Hospitals in Nairobi and chairs the division of obstetrics and gynaecology at Nairobi Hospital. Prof. Guyo is the Regional coordinator for East central and Southern Africa region on the FIGO initiative for prevention of unsafe abortion. He was until recently the coordinator of the African Coordinating Centre for the Abandonment of Female Genital Mutilation hosted by the University of Nairobi. He is an advocate of Women reproductive health rights, and contributed to the enactment of the Kenyan FGM prohibition act through training of parliamentary committees. He has lectured and presented many papers at international conferences and published papers in peer reviewed scientific journals.

Dr. Nahla G. Abdel-Tawab

Nahla Abdel-Tawab is director of the Population Council's Egypt office. She holds a medical degree from Cairo University, a master's in public health from Tulane University, and a doctorate of public health from Johns Hopkins University. She works closely with government agencies and leading NGOs to identify research priorities and interventions that address pressing needs and issues in reproductive health, including postpartum and post-abortion family planning, female genital mutilation/cutting (FGM/C), and youth sexual and reproductive health. She provides technical and managerial leadership for the design and implementation of research and interventions to enhance young people's healthy and successful transitions to adulthood. She also plays a key role in facilitating the scale-up of interventions and the use of research results by policymakers and program managers.

Dr Samuel Kimani

Samuel Kimani is a Research Associate at Africa Coordinating Centre for Abandonment of FGM/C (ACCAF) & Senior Lecturer at the School of Nursing, University of Nairobi, Kenya. He has expertise, leadership, motivation and competencies for interventions and research activities that mitigate suffering of women and girls. His background in Nursing/Midwifery and contemporary global health issues enables him to work in a multi-disciplinary team executing interventions impacting directly on women/girls affected by FGM/C and reproductive health problems. He has strong interest on FGM/C and the attendant impacts on maternal and infant health. As a researcher he is part of investigators under the "evidence to end FGM/C" a Population Council-led DFID funded project. He is the principal investigator on medicalization of FGM/C in Kenya, and a multi-country health system strengthening study project. As a lecturer, he has been involved in clinical teaching, research supervision and mentorship, publishing, curriculum review and community-related capacity building. He has published widely and presented in national and international meetings.

Dr Tammary Esho

Dr. Tammary Esho, Director, End FGM/C Centre of Excellence, Amref Health Africa. A public health and sexual medicine expert with major focus on sexual and gender-based violence. She has been involved in advocacy work, sexual healthcare capacity building and training to healthcare professionals, research studies and has recently collaborated with WHO on sexual healthcare guidelines for all levels of healthcare providers confronted with women suffering from sexual health complications of FGM.

Dr. Carolyne Njue

Dr Njue is a postdoc research fellow based at the Australian Centre for Public and Population Health Research, School of Public Health in the Faculty of Health. Currently examining maternal healthcare models for African women of refugee backgrounds within New South Wales and a co-investigator on a project to improve the quality of maternity care for women with female genital mutilation.

Professor Angela Dawson

Angela is a Professor of Public Health and Associate Dean (International) at the Australian Centre for Public and Population Health Research (ACPPHR) in the Faculty of Health, University of Technology Sydney. Angela is a public health social scientist with expertise in maternal and reproductive health service delivery to priority populations in Australia and low and lower middle-income countries. Angela is an NHMRC Translational research fellow examining approaches to counselling women with FGM at the point of care and the recipient of the Sax prize for research impact. She has undertaken research into to the delivery of reproductive health services in humanitarian emergencies, the management and referral of women who have experienced domestic violence as well as access to abortion and emergency contraceptive pills in Australia and internationally. Angela is the convenor of the Public Health Association of Australian Women's Health Special Interest group, a member of the Interagency working group of reproductive health in crisis and an Associate Editor of the journal BMC Pregnancy and Childbirth. https://profiles.uts.edu.au/Angela.Dawson

Participants

Prof. Patrick Ndavi	Coordinator of Africa coordinating Centre for Abandonment of FGM University of Nairobi Kenya
Prof. Guyo Waqo Jaldesa	Professor, Department of Obstetrics and Gynaecology at the University of Nairobi Kenya
Dr Samuel Kimani	Senior Lecturer Africa Coordinating Centre for Abandonment of Female Genital Mutilation/Cutting, University of Nairobi Kenya
Dr Tammary Esho	Director, End FGM/C Centre of Excellence, Amref Health Africa. Kenya
Dr Joyce Chebet	Lecturer Africa Coordinating Centre for Abandonment of Female Genital Mutilation/Cutting--------School of Nursing University of Nairobi
Stella Kulei	Lecturer Egerton University Kenya
James Munyao	Tutorial Fellow PhD student Technical University of Kenya Kenya
Chantalle Okondo	Program officer Population Council Nairobi Kenya
Caroline Kabiru	Population Council Kenya
Jacqueline Chesang	School of Public Health University Of Nairobi Kenya
Dr. Salma Ahmed	Medical Consultant Khartoum Hospital, PhD student UTS Sudan
Oluchukwu Loveth Obiora	PHD student Department of Nursing Education, University of the Witwatersrand, Johannesburg South Africa.
Dr. Issa Rashid Suleiman	Department of Obstetrics and Gynaecology, Kilimanjaro Christian Medical University College, Moshi, Tanzania
Engelbert A. Nonterah,	Navrongo Health Research Centre, Ghana Health Service, Navrongo, Ghana
Ann E Aronu,	Senior lecturer, College of Medicine, Department of paediatrics, University of Nigeria/ University of Nigeria Teaching Hospital Enugu State, Nigeria.
Dr. Imran O. Morhason-Bello	Department of Obstetrics and Gynaecology, Faculty of Clinical Sciences, College of Medicine, University of Ibadan, Ibadan, Nigeria
Dr. Hilary I. Okagbue	Department of Mathematics, Covenant University, Ota, Nigeria.

Tesfahun Taddege Geremew	Public Health Emergency Management (PHEM) Directorate, Amhara Public Health Institute (APHI), Bahir Dar, Ethiopia
Robera Olana Fite	Assistant Professor (Adult Health Nursing) Department of Nursing, College of Health Sciences and Medicine, Wolaita Sodo University, Ethiopia
Melswew Setegn	Lecturer, Mizan Tepi University Ethiopia
Kassahun Alem	Associate Professor of Public Health and Epidemiology, Director of the Institute of Public Health, University of Gondar Ethiopia
Professor Mamadou Dioulde Balde	Professor Faculty of Medicine, Gamal Abdel Nasser University of Conakry, Coordinator Centre for Research in Reproductive Health in Guinea, consultant Donka University National hospital, Conakry, Guinea.
Dr. Abdulrahim A. Rouzi	Department of Obstetrics and Gynecology, King Abdulaziz University, Jeddah, Saudi Arabia
Osman Mahmoudi	Hamraz Counseling Center of Javanrud, Javanrud, Iran
Deldar Morad Abdulah	1Adult Nursing Department, College of Nursing, University of Duhok, Duhok City, Duhok, Iraq
Dr. Moamar Al-Jefout	Department of Obstetrics and Gynecology, College of Medicine and Health Sciences, United Arab Emirates University, United Arab Emirates
Dr. Patricia Akweongo	Senior Lecturer Head of Department for Health Policy Planning and Management School of Public Health-University of Ghana University of Ghana School of Public Health
Professor Kandala Ngianga-Bakwin	Distinguished Professor of Biostatistics School of Public Health, University of Witwatersrand, South Africa
Dr. Satang Nabaneh	Post-doctoral Fellow at the Centre for Human Rights, Faculty of Law at the University of Pretoria South Africa
Professor Nafisa Bedri	Professor of reproductive health, Director of the International and external Relation Office (IERO) and Manager of Gender and Reproductive Health and Rights Resource Centre (GRACe) Ahfad University for Women, Khartoum, Sudan
Dr. Nahla G. Abdel-Tawab	Director of the Population Council's Egypt office Cairo Egypt
Sara Mohamed	
Dr Olayide Ogunsiji	Director of Academic Workforce, Senior Lecturer, Dean's Unit – School of Nursing and Midwifery Western Sydney University

Dr Ngatho Mugo	NSW Health FGM Education program Western Sydney LHD Australia
Bright Ahinkora	PhD student UTS Australia
Edward Ameyaw	PhD student UTS Australia
Dr. Carolyne Njue	Post Doc. Fellow School of Public health UTS Australia
Professor Angela Dawson	Professor of Public health Associate Dean International UTS Australia

Identifying and Prioritising Research to End Female Genital Mutilation/ Cutting (FGM/C) In Sub-Saharan Africa, the Middle East and North Africa

Date: 17 Jun 2021

Time: 18:00 – 20:30

Chair: Angela Dawson

MC: Samuel Kimani

Venue: Zoom

Minutes

Present: Prof. Patrick Ndavi, Prof. Guyo Waqo Jaldesa, Dr Samuel Kimani, Dr Tammary Esho, Dr Joyce Chebet, Stella Kulei, James Munyao, Chantalle Okondo, Caroline Kabiru, Jacqueline Chesang, Salma Ahmed, Oluchukwu Loveth Obiora, Issa Rashid Suleiman, Engelbert A. Nonterah, Ann E Aronu, Imran O. Morhason-Bello, Tesfahun Taddege Geremew, Robera Olana Fite, Melswew Setegn, Mamadou Dioulde Balde, Abdulrahim A. Rouzi, Osman Mahmoudi, Deldar Morad Abdulah, Moamar Al-Jefout, Patricia Akweongo, Dr Kandala Ngianga-Bakwin, Satang Nabaneh, Nafisa Bedri, Sara Muhamed, Kassahun Alem, Salma Eljailani, Israel James Mu, Dr Olayide Ogunsiji, Dr Ngatho Mugo, Bright Ahinkora, Edward Ameyaw, Carolyne Njue, Angela Dawson

Absent with apologies: Nahla G. Abdel-Tawab

Absent: Jamlick Karumbi, Mohamed Yussuf, Nada Wahba, Dennis J Matanda, Joseph Oluchukwu Wogu, Hilary I. Okagbue, Addisu Alehegn, Alemu Yirgalem Yosef, G. E. Halle-Ekane, Reham Nafad Elbendary, Heba Ghazy, Hussam Zain, Duaa Basalem, Mahshid Bokaie, Samaneh Hate, Nazar P Shabila, Rozhgar A. Saleem, Shamsa Al Awar, Dr Blessing Akombi

Welcome: Professor Patrick Ndavi Coordinator of Africa coordinating Centre for Abandonment of FGM opened the meeting clearly articulating the overview of the workshop and objectives

MC: Dr Samuel Kimani, Africa coordinating Centre for Abandonment of FGM discussed a few housekeeping and group photo taken.

Notes during presentations

FGM/C: The current situation in SSA and MENA and gaps

What we know about the prevalence of FGM/C in SSA and MENA

Professor Kandala Ngianga-Bakwin

Participants questions and comments

Deldar Morad Abdulah- Why the Algeria and Tunisia have so different situation compared to the Egypt, the possible reasons?

Recent resources shared by the participants

Moamar Al-Jefout and team have published a small study from UAE -link https://link.springer.com/content/pdf/10.1186/s12905-020-00949-z.pdf

Tesfahun Taddege recent publication -link https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-021-10235-8

The Law and FGM/C in SSA and MENA

Dr. Satang Nabaneh

Participants questions and comments

Olayide Ogunsiji- Awareness raising is critical globally in efforts at eradication of FGM/C. This is a reoccurring theme in research going on in Australia as well.

Deldar Morad Abdulah-The law is the first stem in the abandonment of the FGM. Why some countries have not banned legally in SSA?

Chantalle Okondo- What do you think about the unintended consequences of law enforcement? Jailing mothers etc

Salma Eljailani- In Sudan for example, the political situation in the past was one of the key reasons why they couldn't ban FGM. I think professor Nafisa can comment on the experience of Sudan in banning FGM

Nafisa Bedri- Sudan has issued a national law banning and prosecuting FGM/C last year. Check https://www.28toomany.org/country/sudan/ On 22 April 2020 the Sovereign and Ministerial Councils of Sudan finally approved an amendment to Article 141 of the Criminal Act to criminalise and punish FGM at a national level

Ogunsiji- My recent publication speaks closely to what you have just presented, Satang "Beyond illegality, primary health care providers' perspectives on elimination of FGM/C https://pubmed.ncbi.nlm.nih.gov/33465840/

Caroline Kabiru, APHRC- In our conversations with law enforcement officers in Kenya, they noted that they are unwilling to jail mothers because it has negative ramifications on the wellbeing of families

Salma Eljailani- I think it would be interesting to document the process of using the law in Sudan and the limitations of litigation strategies in the Sudanese context

Dr. Satang Nabaneh- “Female genital mutilation/cutting in Africa: A complex legal and ethical landscape” https://obgyn.onlinelibrary.wiley.com/doi/abs/10.1002/ijgo.12792 On the viability of the use of criminal sanction to address FGM in general: https://www.taylorfrancis.com/chapters/oa-edit/10.4324/9781003175049-8/addressing-female-genital-cutting-mutilation-fgc-gambia-ebenezer-durojaye-satang-nabaneh

Dr. Satang Nabaneh The 28toomany table I shared was from 2018. Yes, Sudan has joined the list and as Salma said, the Sudanese context is interesting.

Caroline Kabiru, APHRC shared some resources on FGM and the law from the Evidence to End FGM/C program https://knowledgecommons.popcouncil.org/cgi/viewcontent.cgi?article=2203&context=departments_sbsr-rh

https://www.popcouncil.org/uploads/pdfs/2020RH_FGMC-LawReducePractice.pdf

https://www.popcouncil.org/uploads/pdfs/2020RH_FGMC-AssessingLawKenya.pdf

The cost of FGM/C in SSA and MENA

Dr. Patricia Akweongo

Participants questions and comments

Angela Dawson https://srhr.org/fgmcost/cost-calculator/

Deldar Morad Abdulah- In my opinion if the governments agree to spend 25% of these costs to some programs, the situation will be improved.

Chantalle Okondo-Thanks Patricia, agree it would be good to get household level costing - I could see that as entry point for activists or programs with intergenerational dialogue - perhaps looking at costs of FGM vs education of the girl child

Dr EA Nonterah- An observation Patricia: In one of your slides countries (e.g. Burkina Faso) with high years of life lost did not necessarily have a high cost burden but Kenya which with a low YLL had the highest cost.

Patricia Akweongo- Your observation is right. It depends on the type of FGM, The more of type 1 and type 2 costs are lower. Secondly the costs on are based on the health system so in countries where costs of care are low, the costs tend to be lower also. So these are financial costs and not economic costs -the latter will be higher and we need studies on that.

The socio-cultural and religious determinants of FGM/C in SSA and MENA

Professor Nafisa M. Bedri

Participants questions and comments

Stella Kulei- Medicalization is a major contributing factor to FGM and legalization and especially towards Health care workers is key in FGM Elimination.

Tammary Esho- do you only see social norms playing a role or are there aspects of gender norms in the perpetuation of FGM/C in Sudan? Also, have you seen any intersectional aspects exacerbating the practise such as Covid-19?

Caroline Kabiru, APHRC- Link to the research Prof Nafisa has mentioned on decision makers https://ghrp.biomedcentral.com/articles/10.1186/s41256-019-0096-0

Dr. Satang Nabaneh- I think there needs to be a broader discussion/focus on how COVID-19 is/can hinder progress against FGM

Moamar Al-Jefout- There is nothing more stronger than a love of a mother to her children if we use this fact to show mothers the long term impact of FGM on their children's we may reduce the FGM incidence... the key word awareness... awareness and packed by laws against who perform FGM

Deldar Morad Abdulah- What reasons do you have for the difference between practicing the FGM in Egypt and not-practicing in Jordan?

Salma Eljailani@Tammary banning of FGM in Sudan caused a spike in number of girls cut in some places in the country.

The clinical context in SSA and MENA

Professor Guyo Waqo Jaldesa

Participants questions and comments

Deldar Tesfahun Taddege- Which is more appropriate, FGM, FGC or FGM/C?

Prof Jaldesa- FGM

Morad Abdulah- we need to focus more on preventive strategies for the next steps.

The Medicalisation of FGM/C in SSA and MENA

Dr. Nahla G. Abdel-Tawab

Presenter absent with apologies. presentation to be shared to participants.

Question & Answer session

Facilitators: Dr Samuel Kimani Africa

FGM/C: Identifying and prioritising research

How research can aid the prevention of FGM/C-

Professor Angela Dawson

Presentation of the Delphi survey findings

Dr Carolyne Njue UTS

Summary

Meeting closed by Prof. Ndavi at 20.30

Evidence to End FGM/C

Identifying and explaining shifts in FGM/C through Bayesian multivariate analyses of household survey data for Kenya, Nigeria and Senegal

Ngianga-Bakwin Kandala, PhD
Professor of Biostatistics.Warwick Medical School, Coventry, UK
Distinguished Professor, University of Witwatersrand, South Africa

WITS SCHOOL OF PUBLIC HEALTH, 28th June 2019

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Northumbria University NEWCASTLE

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OUTLINE

- **Background on Female Genital Mutilation**
  - Sampling complexity
  - Why Bayesian Analysis
  - Geo-additive regression models

- **Practical applications of FGM in Kenya, Nigeria and Senegal**
  - Predicted maps
  - Confounding factors

- **Conclusion**
- **Policy Implications**

FEMALE GENITAL MUTILATION

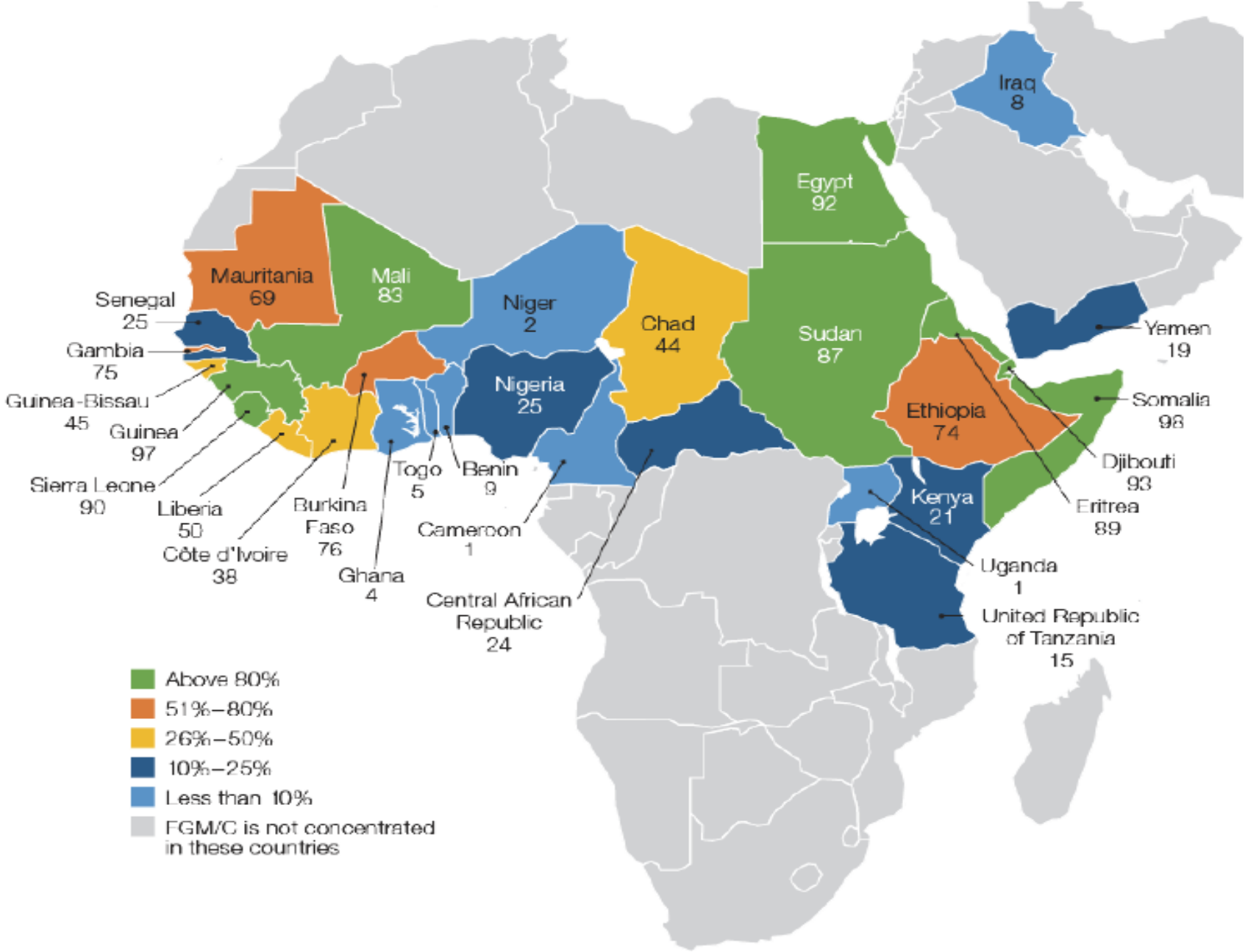
- Female genital mutilation (FGM) includes procedures that intentionally alter or cause injury to the female genital organs for non-medical reasons.
- The procedure has no health benefits for girls and women.
- Procedures can cause severe bleeding and problems urinating, and later cysts, infections, as well as complications in childbirth and increased risk of newborn deaths.
- More than 200 million girls and women alive today have been cut in 30 countries in Africa, the Middle East and Asia where FGM is concentrated.

FEMALE GENITAL MUTILATION

- FGM is mostly carried out on young girls between infancy and age 15.
- FGM is a violation of the human rights of girls and women. A gender based violence.
- In 2012, the United Nations General Assembly passed resolution 67/146 on intensifying global efforts for the elimination of female genital mutilations.
- Tracking rates of reduction and progress of change is necessary to inform ongoing and future interventions, and to identify what has been successful and where.

DEMOGRAPHICS

- Several demographic characteristics are common to countries where FGM is prevalent.
- They all have young populations, high fertility levels, and high child and maternal mortality rates.
- These characteristics define the complexity and consequences of the practice, and make its elimination more challenging.



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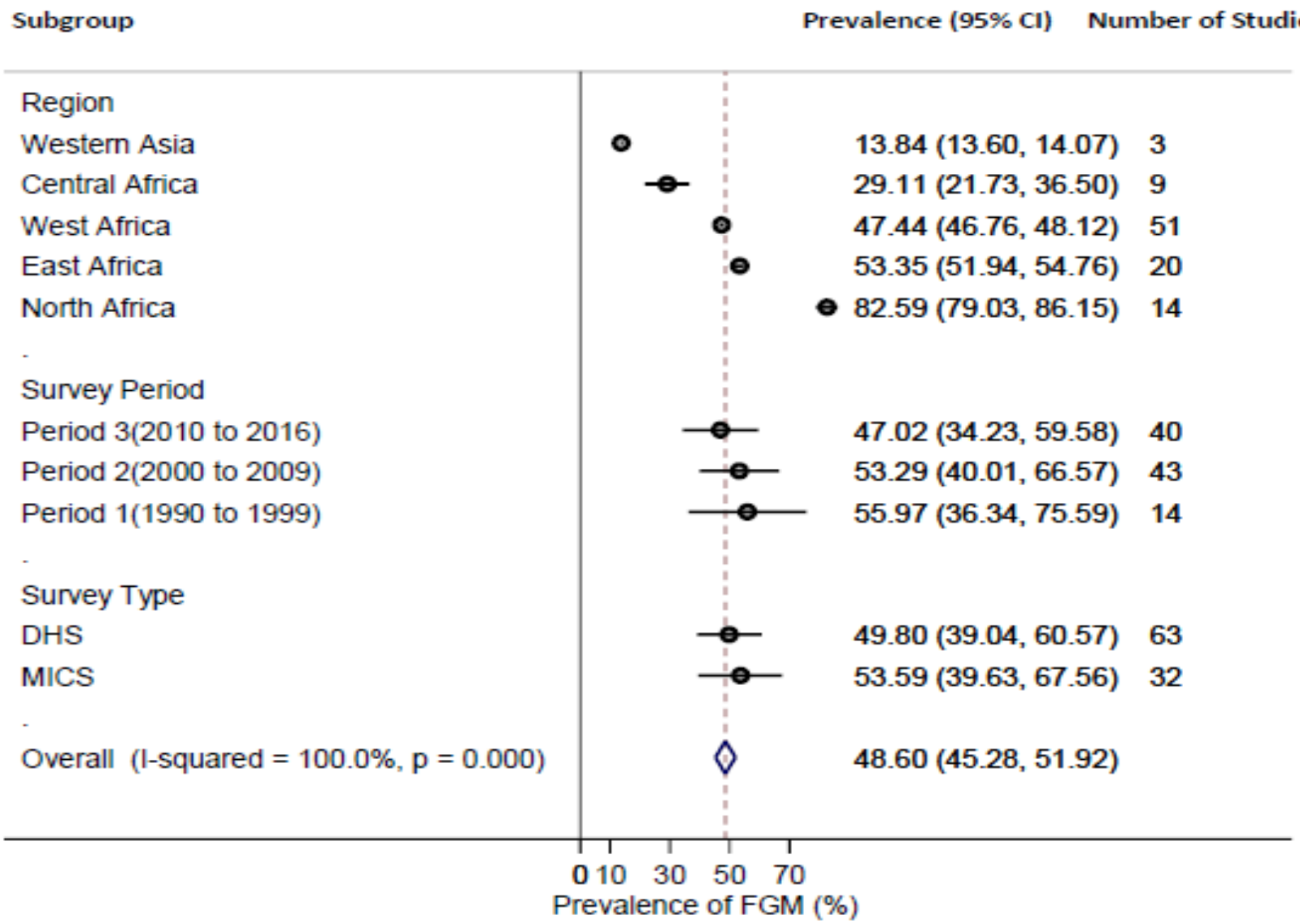
FEMALE GENITAL MUTILATION

- **FGM has an important impact on maternal and child health in relation to Sustainable Developments Goals (reduction of child and maternal mortality).**

- **A gender based violence and its elimination is one of the targets under Sustainable Development Goal (SDG) 5-achieve gender equality and empower all women and girls by 2030.**

Prevalence of FGM/C around the Globe



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Evidence to End FGM/C

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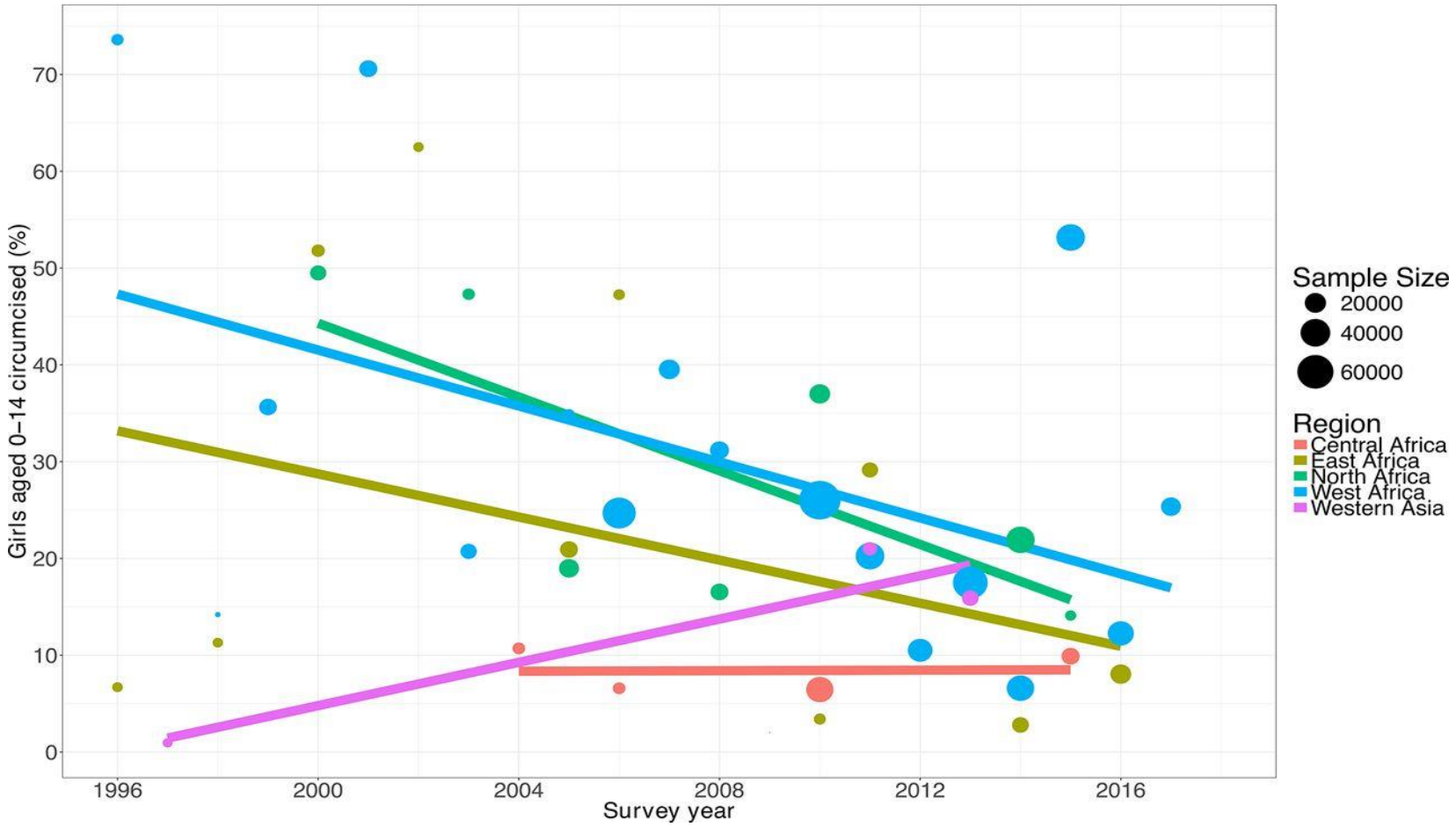
Comparison of age-specific prevalence of FGM/C across 5 sub-regions

Sub-Region	10-14 Years	15-49 Years	50 Years and Over
Central Africa	20.82 (6.90-48.57)	24.0(5.58-53.58)	26.70(3.90-57.30)
East Africa	49.83(23.33-76.33)	56.60(21.12-92.08)	60.86(20.51-99.20)
North Africa	83.10(83.10-86.16)	90.60(90.59-90.61)	95.42(95.41-95.44
West Africa	41.76(29.53-53.99)	47.37(30.80-50.63)	51.83(28.13-75.55)
Western Asia	21.50(21.43-21.57)	21.30(21.46-21.54)	21.50(21.41-21.59)
Total	43.88(33.98-53.78)	49.30(34.33-64.27)	53.77(35.15-72.39)

Secular trends in prevalence of female genital mutilation or cutting among children.



Ngianga-Bakwin Kandala et al. BMJ Glob Health 2018;3:e000549

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Evidence to End FGM/C

BMJ Global Health

Main objectives

- Highlight counties and provinces inequalities in FGM prevalence
- Investigate spatial patterns at a disaggregated county-level
- Explore the effects of unobserved and unmeasured factors such as social/cultural norms using flexible Bayesian approach.

Why Spatial Modelling and Mapping of

GIRLS FEMALE GENITAL MUTILATION/CUTTING

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Public health policies in Africa

- Many healthcare bodies in developing countries rely on results derived from analyses of Demographic and Health Survey (DHS) and Multiple Indicators surveys (MICS) data to inform socioeconomic and health policies.
- These surveys are conducted by the National Statistical Office in collaboration with Macro International, with funding from the United States of America International Development (USAID) and UNICEF for MICS.

***Answer 1: to cater for issues of* Complex sampling design in survey data**

- The surveys provide cross-sectional information on fertility, child and infant mortality, family planning, marriage, and sexually transmitted diseases, HIV/AIDS including Female Genital Mutilation (FGM) among girls and women.

- The samples collected under the DHS and MICS programme are drawn together using stratified multistage sampling designs, often with over-sampling of smaller domains such as urban areas or certain regions of a country.

Answer 2. Clustering

- DHS data use cluster-sampling to draw upon women respondents via multistage sampling, where:
- at the first stage, a stratified sample of enumeration areas (villages/ communities) is taken;
- at the second stage, a sample of households within the selected communities is taken;
- and finally, at the third stage, all women respondents (aged 15-49 years) in the sample households are included.

Answer 2. Clustering cont'd…

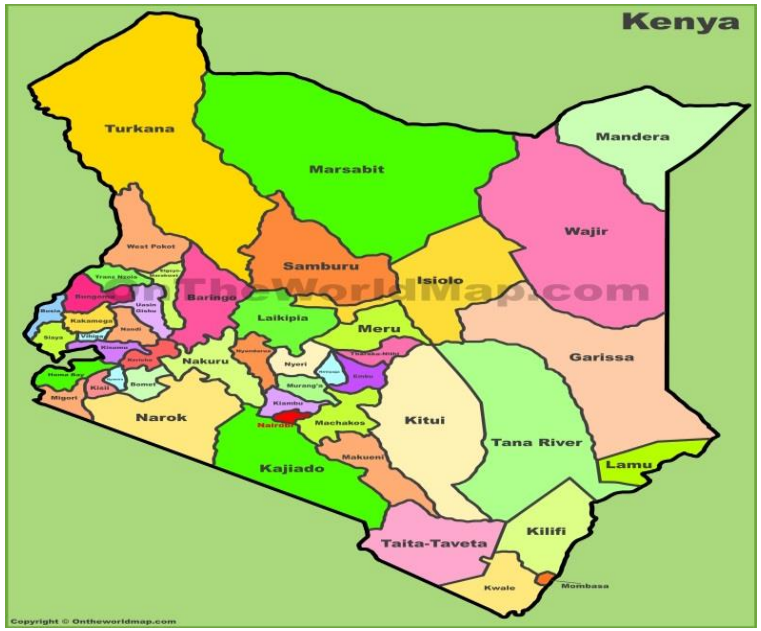
- Cluster sampling is a cost-saving measure, without the need to list all the households. However, statistically, it creates analytical problems in that observational units are not independent.

- Thus, statistical analyses that rely upon the assumption of independence are no longer valid.

Why spatial analysis and geo-additive modelling?

" I don't see a Bayesian approach as a scientific method but it is a method of making decision in the place of uncertainty"

Peter Diggle, comment made at the International Biometric Society (IBS-SUSAN) conference, Lilongwe, 22nd August 2017.



- Hierarchical structure
- Spatial dependence & Nonlinear effects
- Censoring and heaping effects

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Answer 3: to account for important risk factors: Geo-additive regression

- General Idea: Replace usual parametric predictor with a flexible semi-parametric predictor containing:

– Nonparametric effects of time scales and continuous covariates,

– Spatial effects,

– Interaction surfaces,

– Varying coefficient terms (continuous and spatial effect modifiers),

– Random intercepts and random slopes.

- All effects can be cast into one general framework.

Answer 3: to account for important risk factors:

Geo-additive regression

- "Usual assumption for Generalised Linear Models"

$$pr(y_{it} = 1 / x_{it}^{*}\pi) = \phi(\eta_{it}) \qquad y_{it} = \begin{cases} 1 \\ 0 \end{cases}$$

- Response: Binomial
- Replace the linear predictor

$$M1: \eta_{it} = f_0(t) + x_{it}^{'}\beta$$

- By a semi-parametric geo-additive predictor

$$M2: \eta_{it} = f_0(t) + f_1(mab) + f_2(t)x_{it} + f_{spat}(s_i) + x_{it}^{'}\beta$$

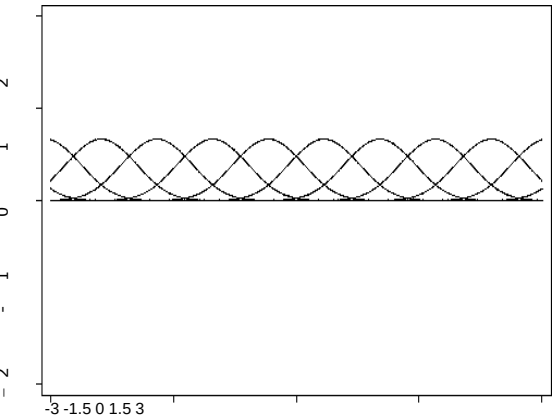
$$f_{spat}(s_i) = f_{str}(s_i) + f_{unstr}(s_i)$$

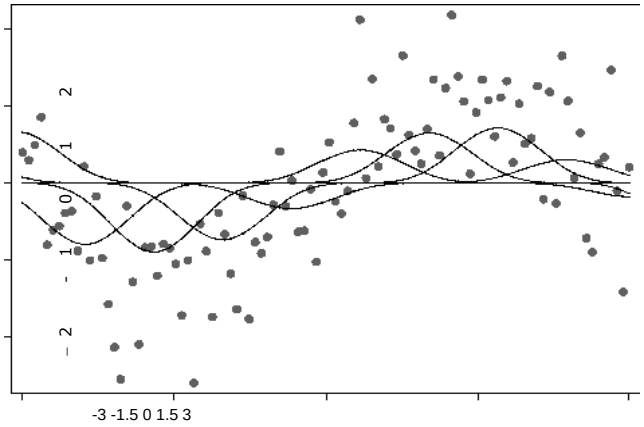
- Penalised splines.

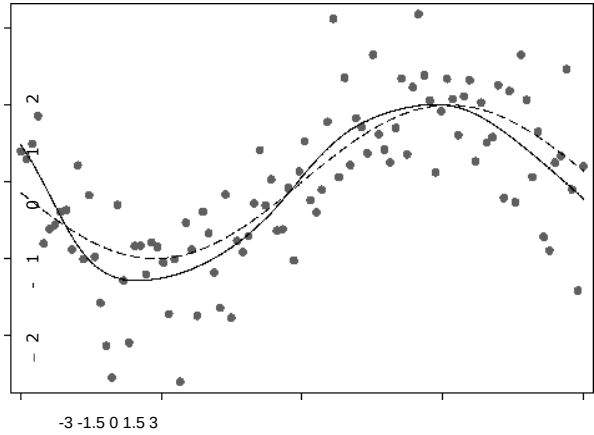
– Approximate *f*(*x*) by a weighted sum of B-spline basis functions.

– Employ a large number of basis functions to enable flexibility.

– Penalise differences between parameters of adjacent basis functions to ensure smoothness.





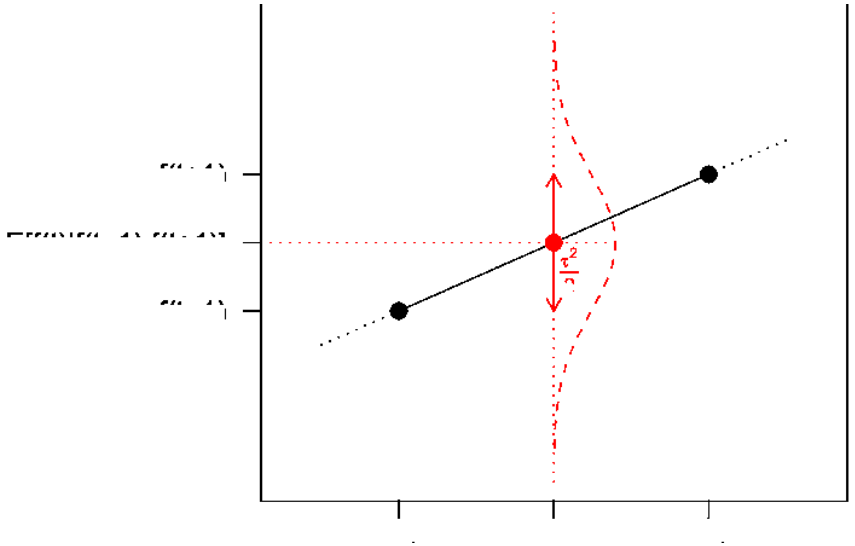


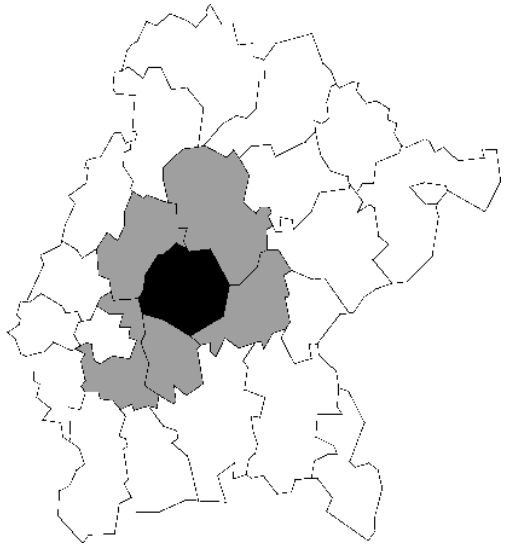
Spatial effect for regional data: Markov random fields.

Bivariate extension of a first order random walk on the real line.

– Define appropriate neighbourhoods for the regions.

– Assume that the expected value of *fspat*(*s*) is the average of the function evaluations of adjacent sites.





MCMC SIMULATION

- Based on a flexible geo-additive model using the county/province as the geographic unit of analysis, which allows to separate smooth spatial structured effects from random effect.

- Inference is fully Bayesian and uses Markov random field priors for spatial effect, P(enalised)-spline priors for nonlinear smooth effects and Deviance Information Criterion for model checking (Fahrmeir and Lang, 2001; Brezger *et al*., 2005).

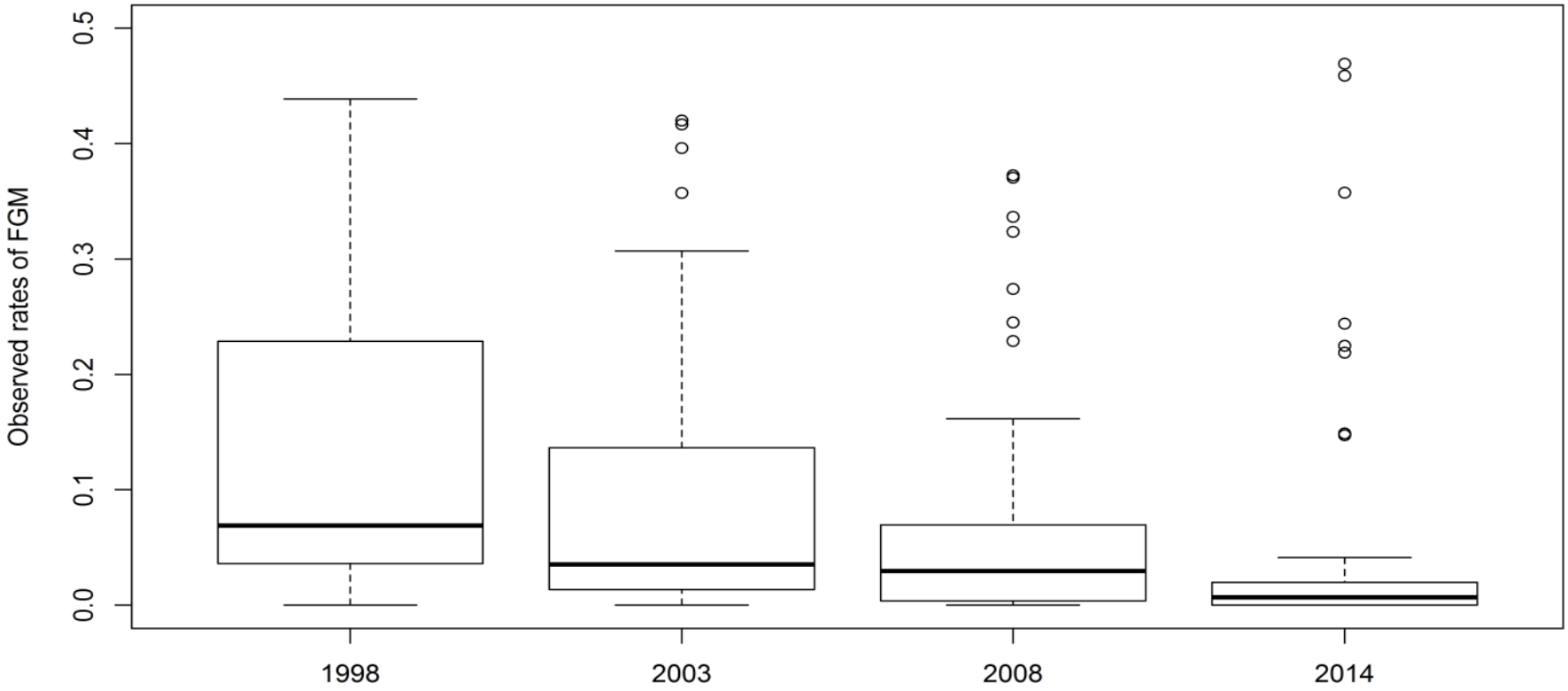
- Implemented in the software package BayesX. Available from http://www.stat.uni-muenchen.de/~bayesx

Complex sampling and variations

OBSERVED PREVALENCE

Figure 1: Boxplots of observed rates of FGM/C in Kenya from 1998 – 2014. The 2008-09 KDHS survey had no age restrictions while 2014 KDHS survey focused on daughters aged 0-14 years. The 1998 and 2003 KDHS collected information on circumcision among eldest daughters.

National average (37.6%, 32,1%, 27.1% and 21.0%)



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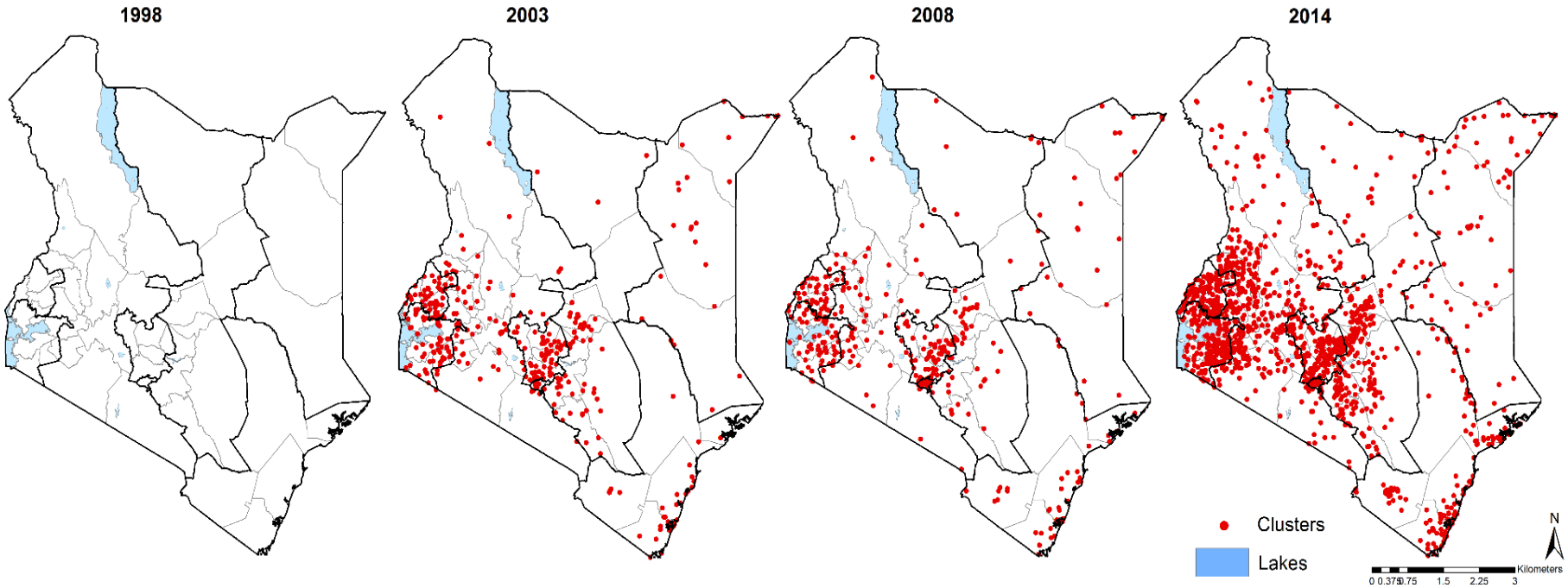
Observed FGM/C prevalence



The red points show the clusters and the blue polygons show the water bodies in Kenya. Kenya is divided into 47 counties and 8 regions (provinces). The clusters coordinates for DHS survey conducted in 1998 were not collected.

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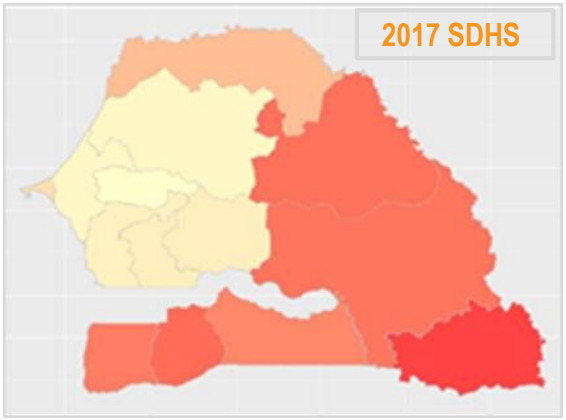
Answer 4: to de-mask location variations in FGM/C Prevalence

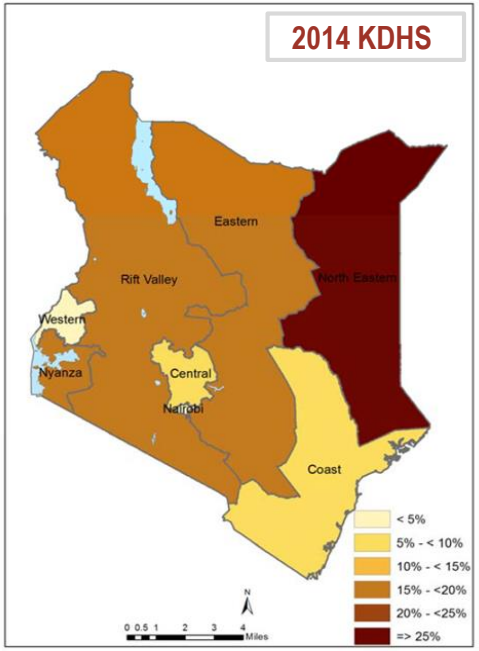
Senegal:
- 14 regions
- 45 departements
- 8 major ethnic groups and others

Kenya:
- Eight (8) provinces
- 47 counties
- 11 ethnic groups and others

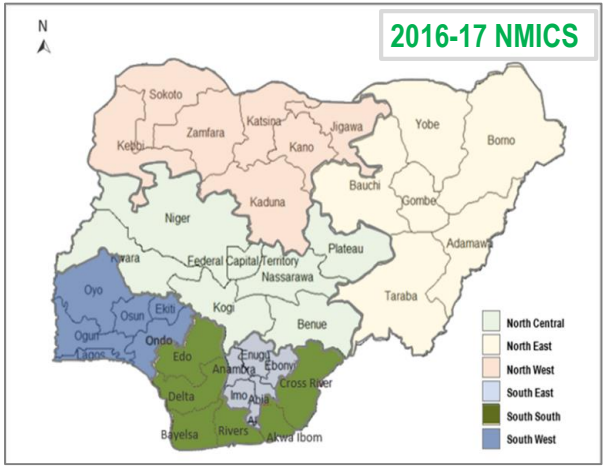
Nigeria:
- Six (6) geopolitical zones (regions)
- 36 States and the FCT-Abuja
- Six (6) ethnic groups and others



Year	Women 15-49 years	Girls 0-14 years
2005 DHS	28.2	20.0
2010-11 DHS	25.7	11.9
2015 DHS	24.2	14.6
2017 DHS	24.0	14.0



Year	Women 15-49 years	Girls 0-14 years
1998 DHS	37.6	24.1
2003 DHS	32.1	21.0
2008-09 DHS	27.1	8.0
2014 DHS	21.0	2.8



Year/Type	Women 15-49 years	Girls 0-14 years
2003 DHS	19.0	17.3
2007 MICS	26.0	22.4
2008 DHS	29.6	30.0
2011 MICS	27.0	19.2
2013 DHS	24.8	24.4
2016-17 MICS	18.4	25.3

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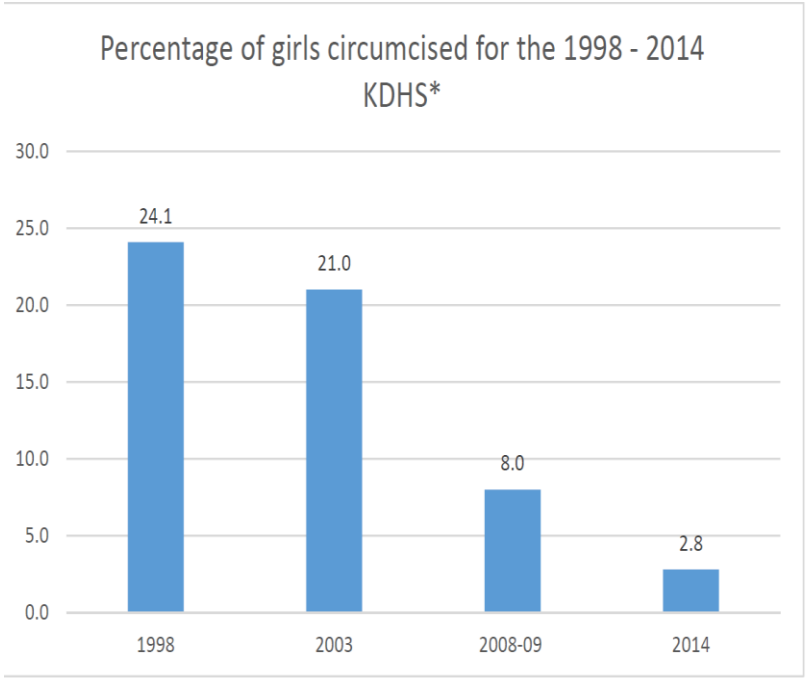
KEY FINDINGS

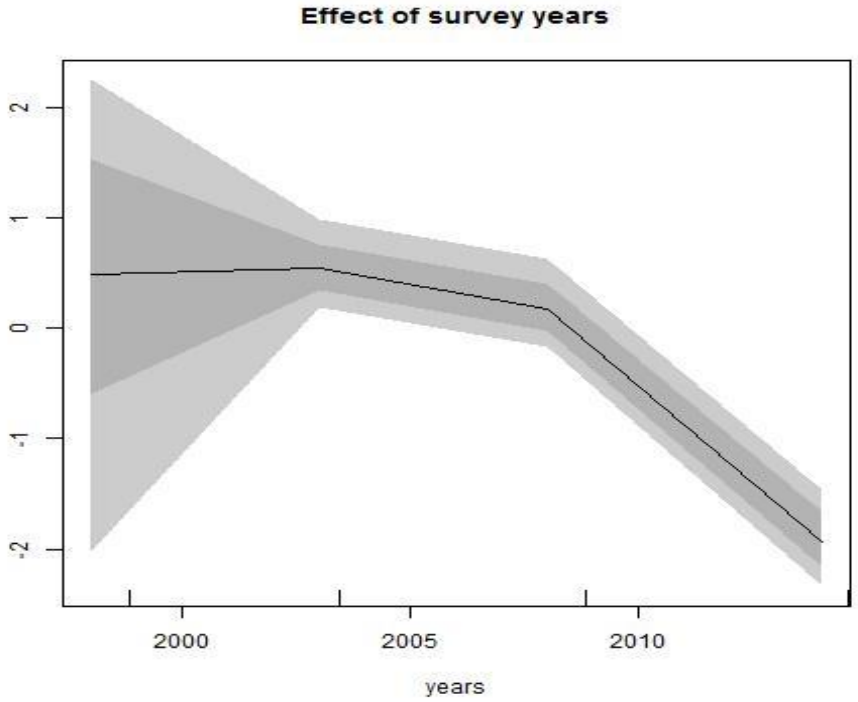
Kenya, Nigeria and Senegal

National Prevalence
Girls Aged 0-14

KENYA

FGM/C OBSERVED PREVALENCE & MODEL PREDICTED MAPS:





*The 1998 survey refers to the eldest daughter age 15 or older; the 2008-09 KDHS refers to the m
circumcised daughters; the 2014 survey refers to all daughters aged 0-14 years

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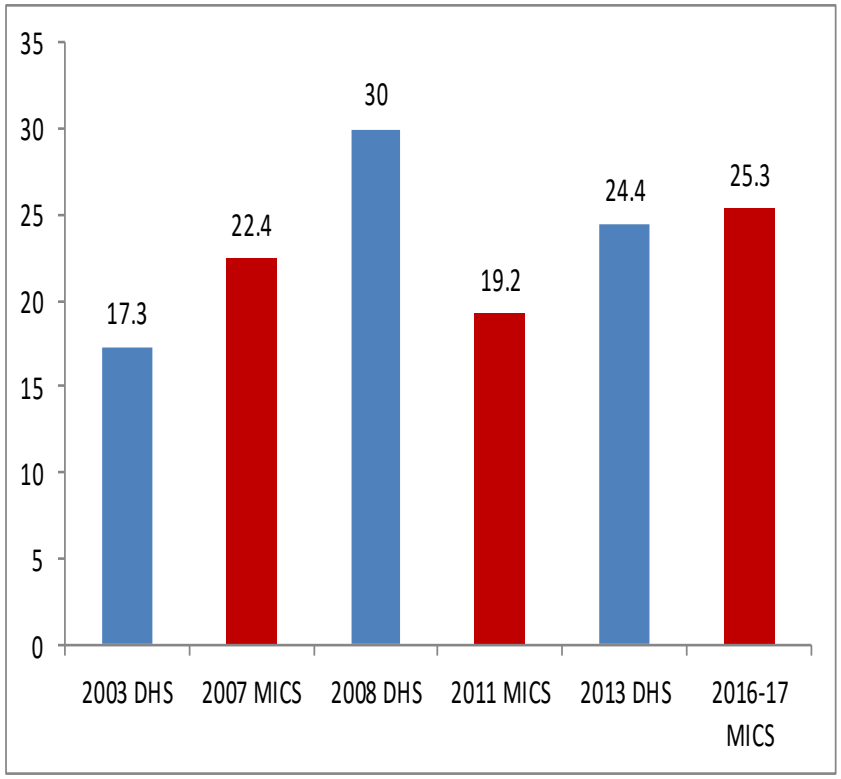
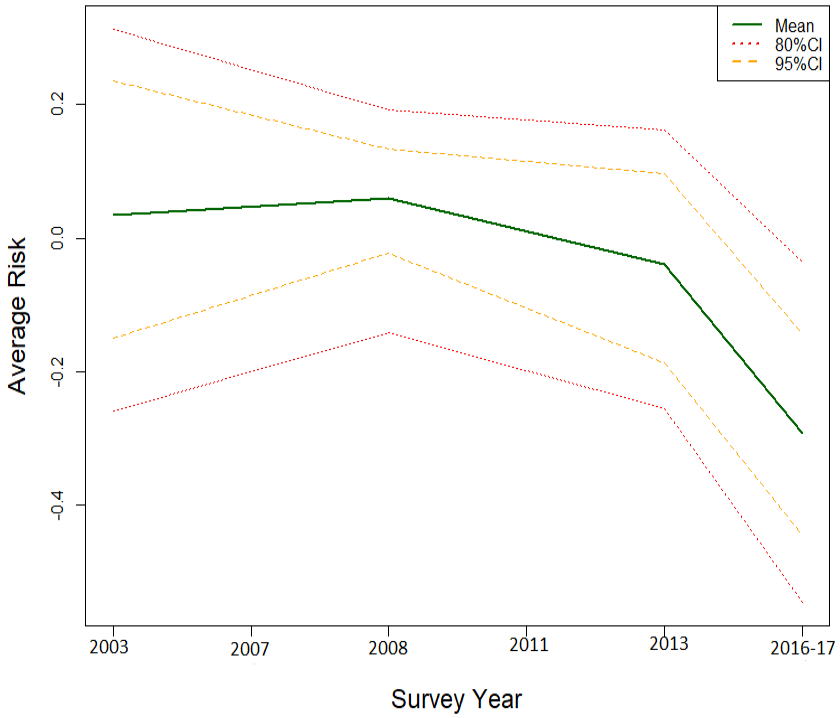
NIGERIA

FGM/C OBSERVED PREVALENCE & MODEL PREDICTED MAPS:





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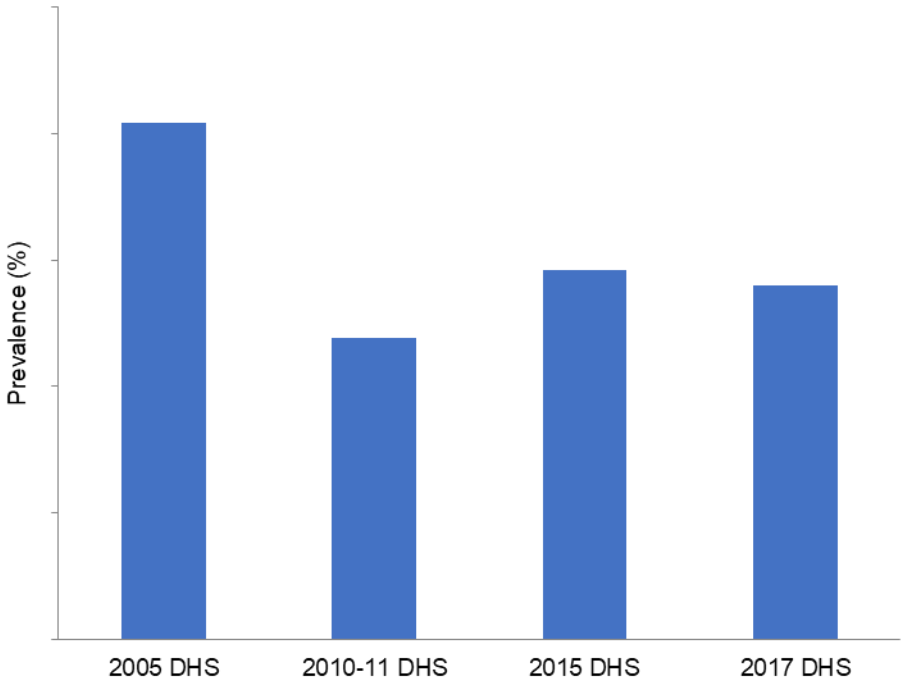
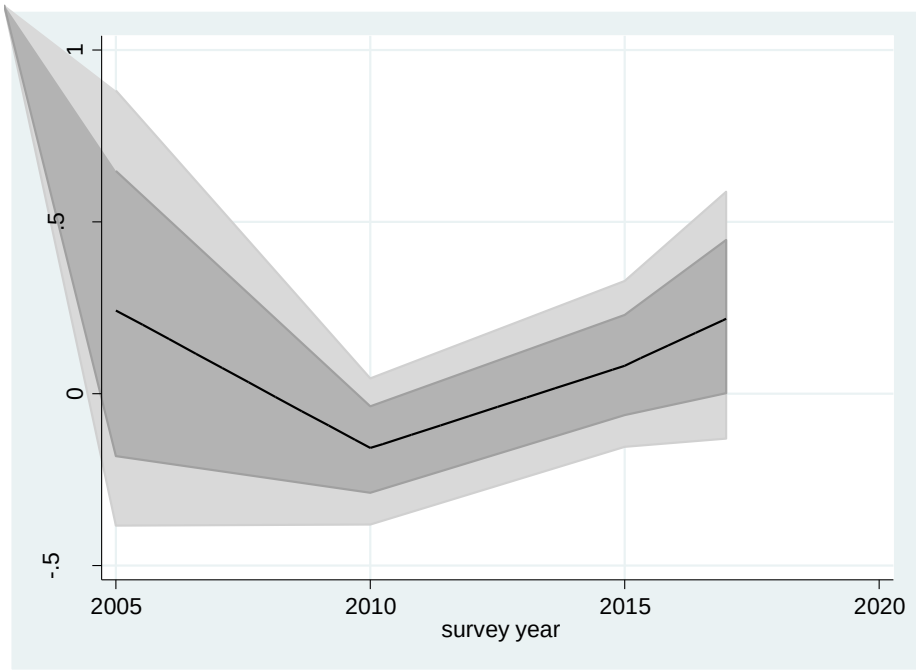
SENEGAL

FGM/C OBSERVED PREVALENCE & MODEL PREDICTED MAPS:





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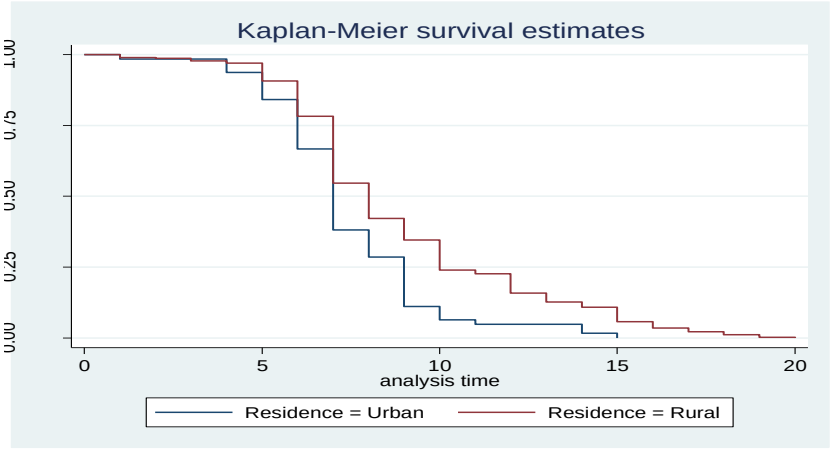
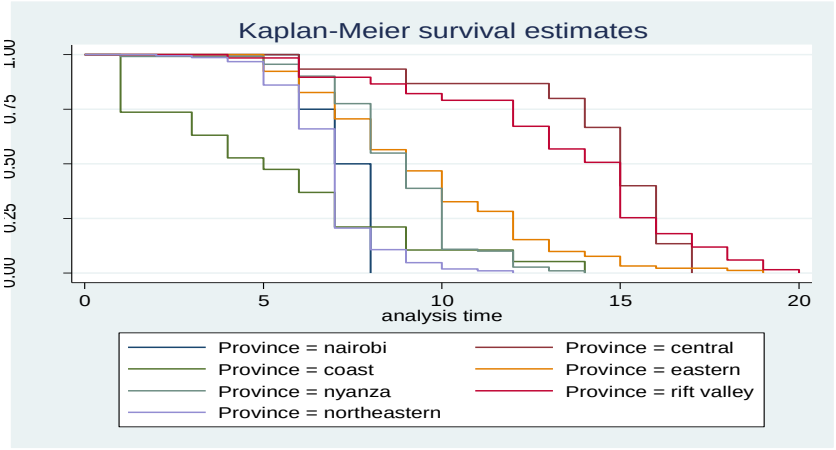
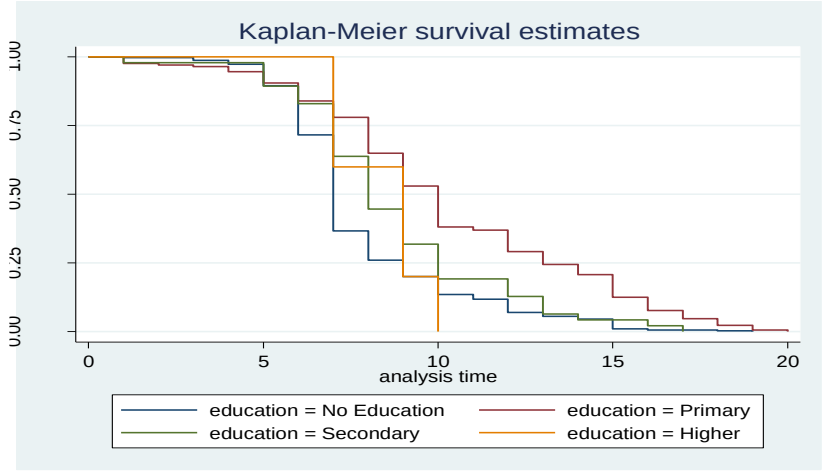
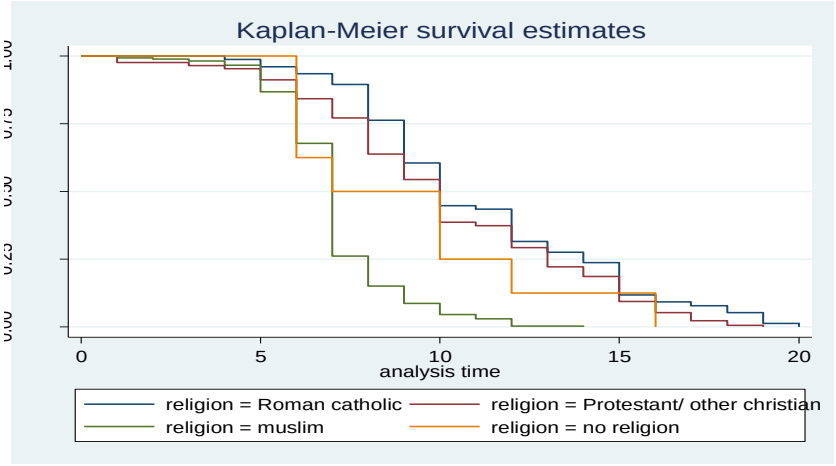
Time of Cutting
Girls Aged 0-14

KENYA: Kaplan-Meier survival curves of time to cutting by selected socio-economic characteristics - KDHS 2008









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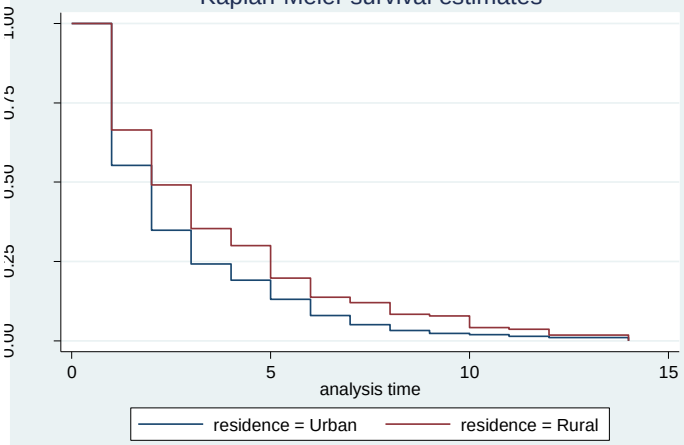
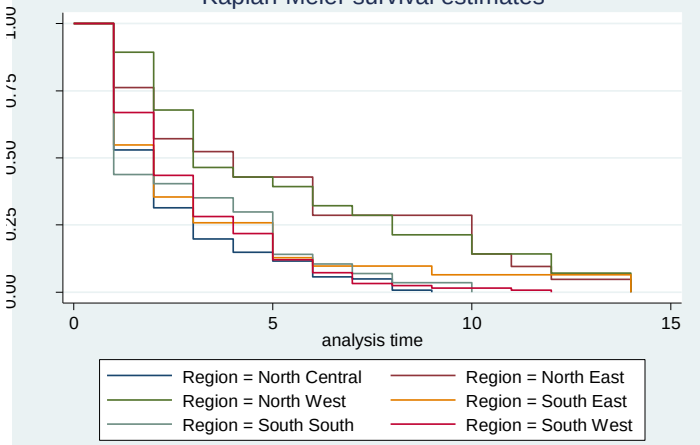
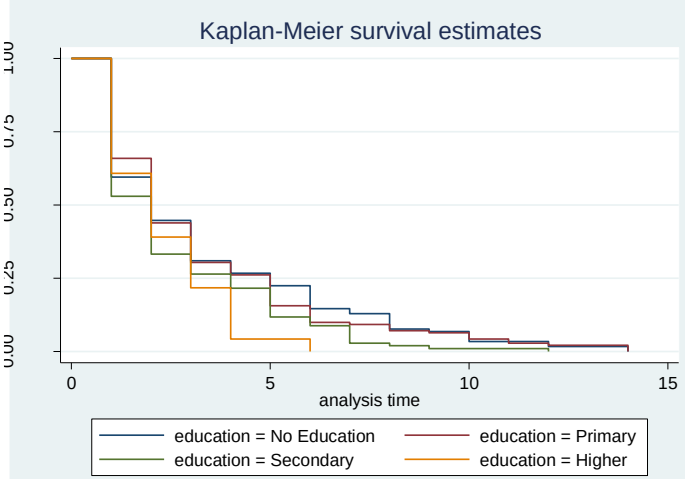
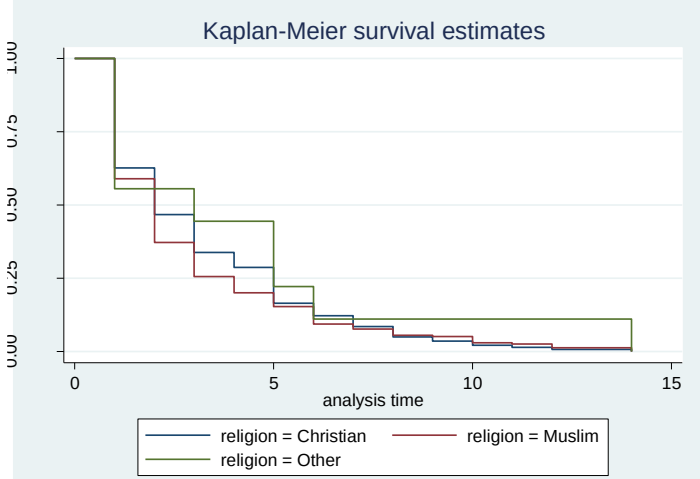
NIGERIA: Kaplan-Meier survival curves of time to cutting by selected socio-economic characteristics NDHS 2013

Type of residence: urban vs rural | Region of residence | Education Mother's education | Religion



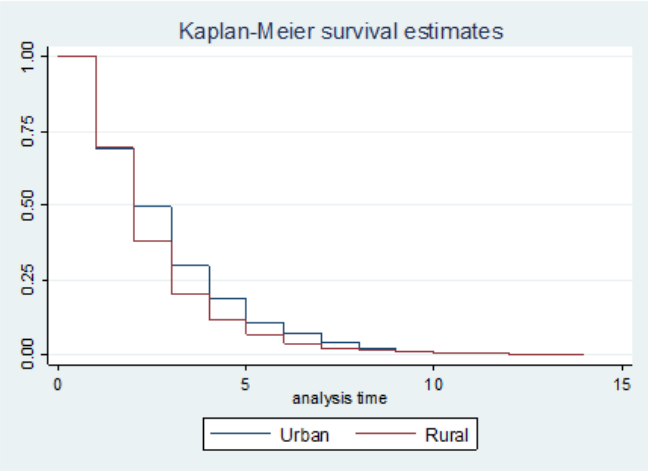


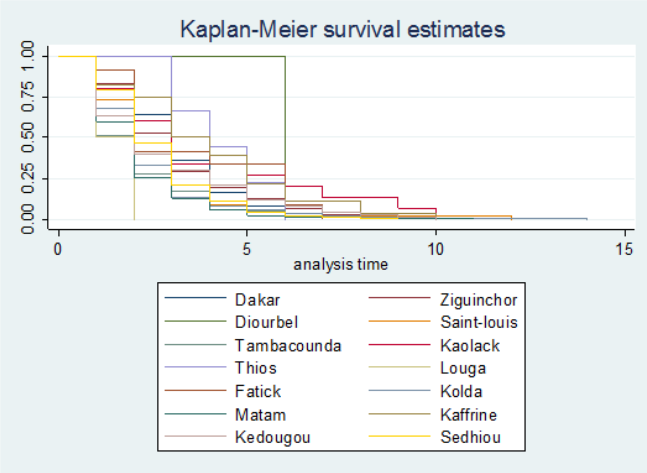


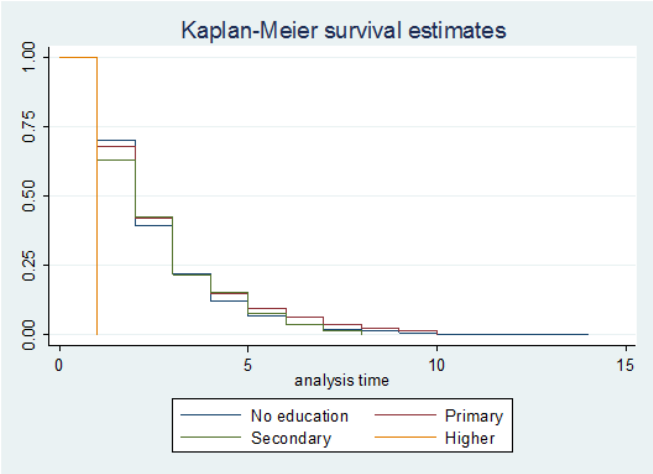


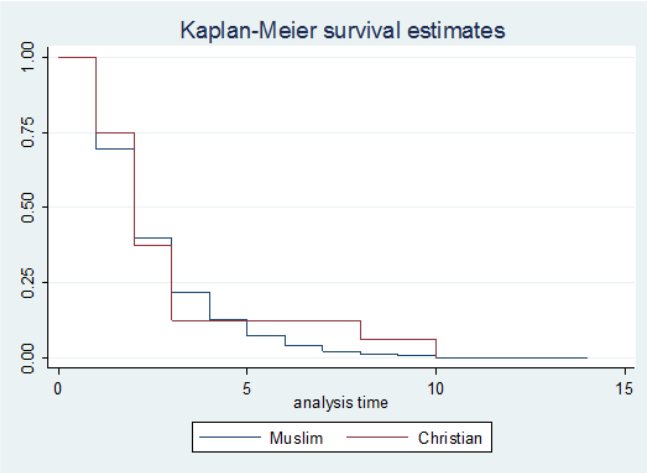
SENEGAL: Kaplan-Meier survival curves of time to cutting by selected socio-economic characteristics SDHS 2013

Type of residence: urban vs rural | Region of residence | Education Mother's education | Religion



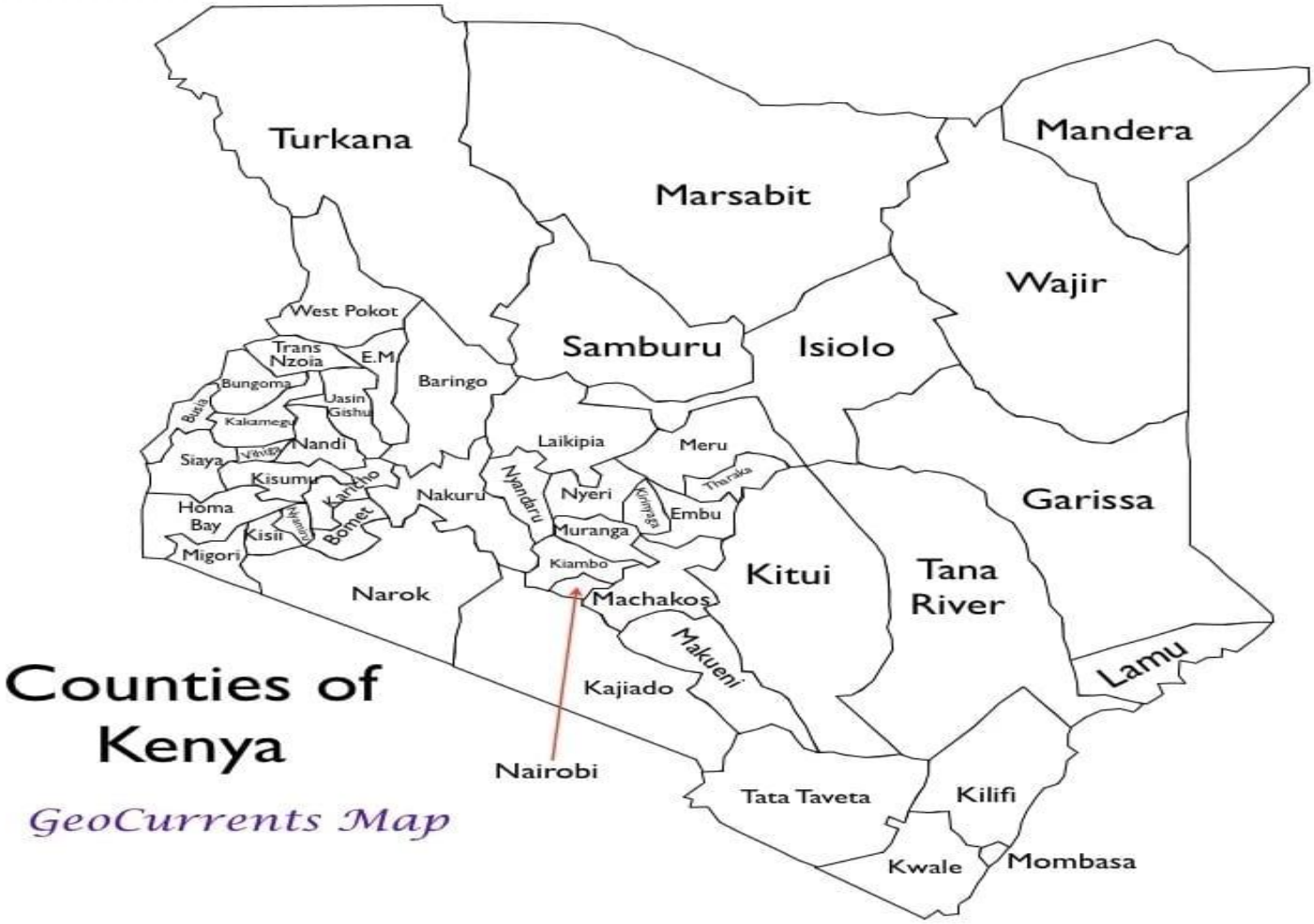






Geographical Variations
Girls Aged 0-14

47 counties of Kenya



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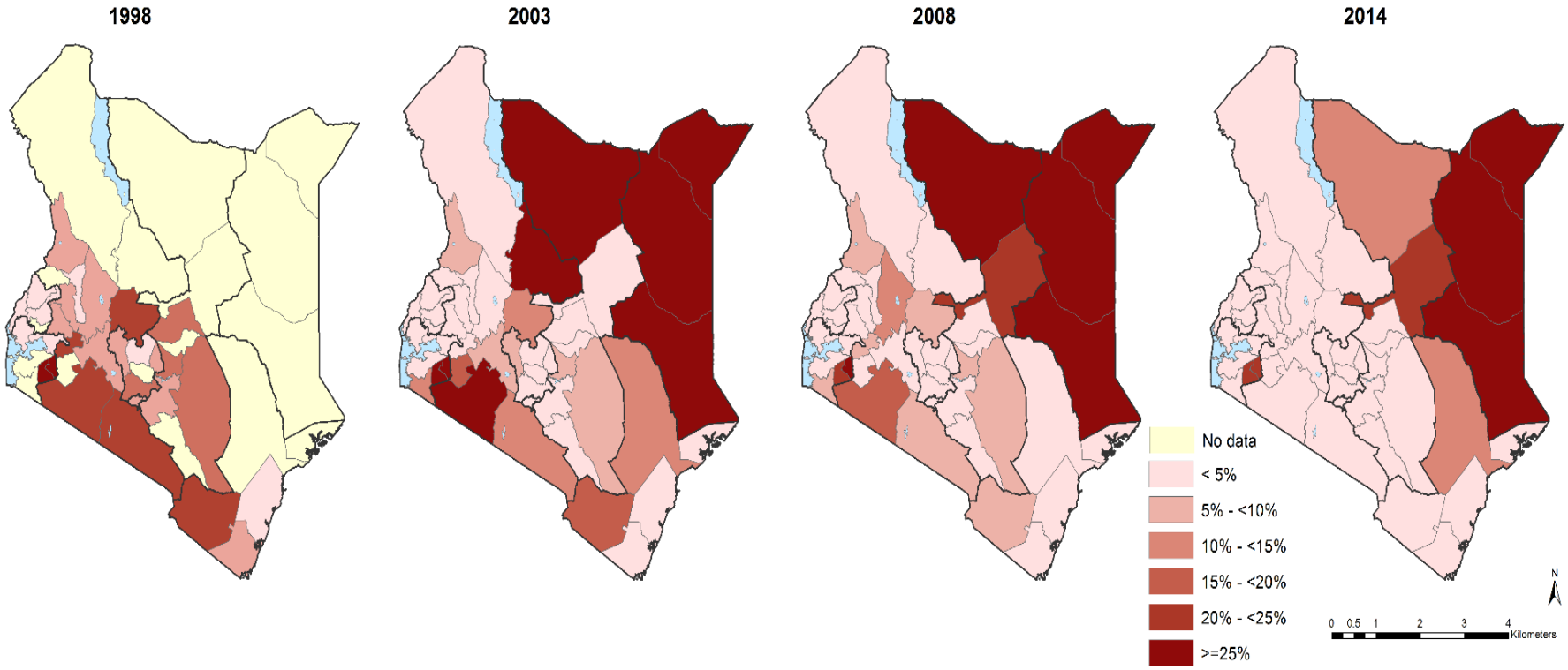
KENYA: Observed rates of FGM/C at county level among circumcised daughters for four consecutive KDHS surveys conducted in 1998, 2003, 2008-09, and 2014



Kenya is divided into 47 counties and 8 regions (provinces).

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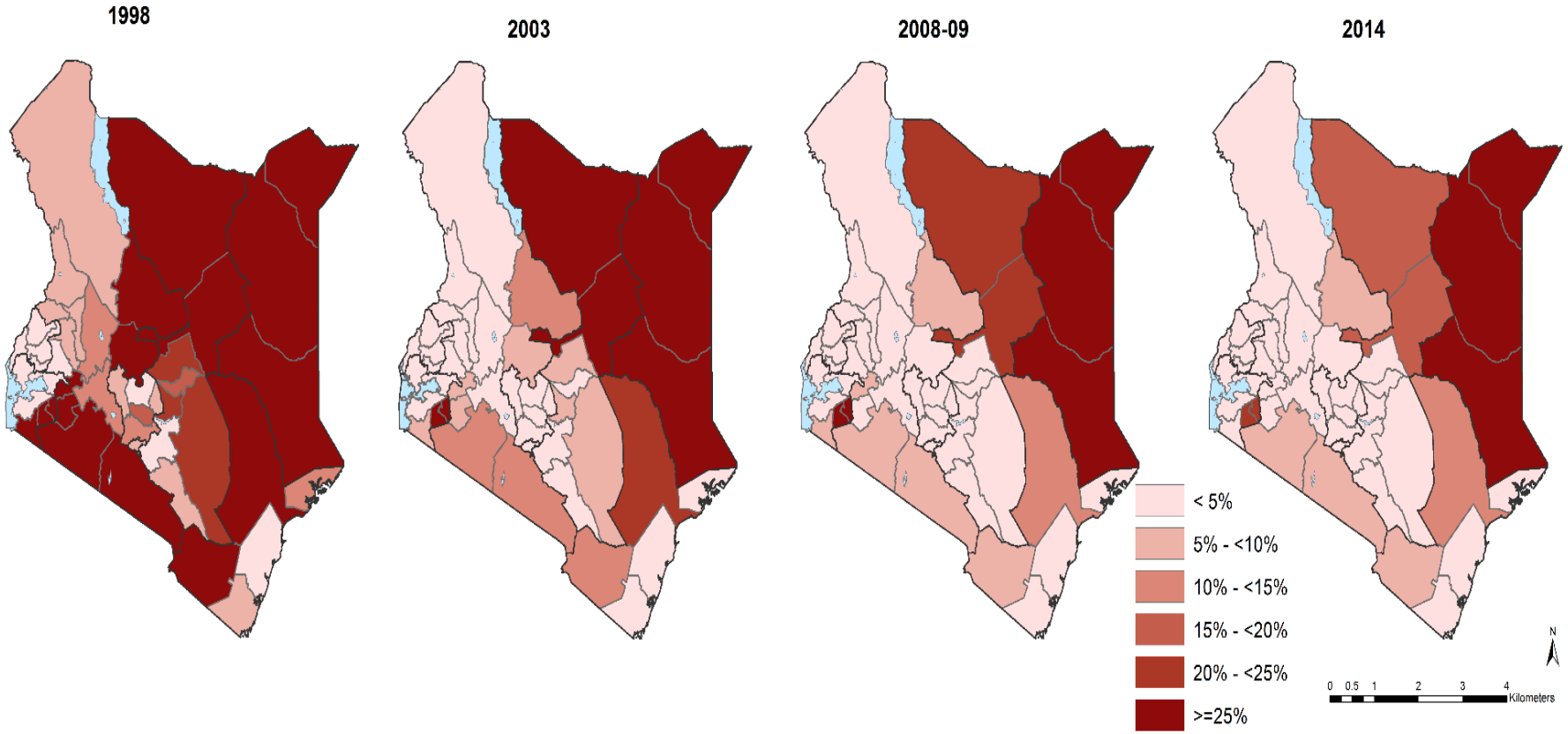
KENYA: Predicted prevalence of FGM among girls in Kenya from KDHS survey datasets from 1998 – 2014 at county level derived from the spatial-temporal regression model.



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37 states of Nigeria including Abuja

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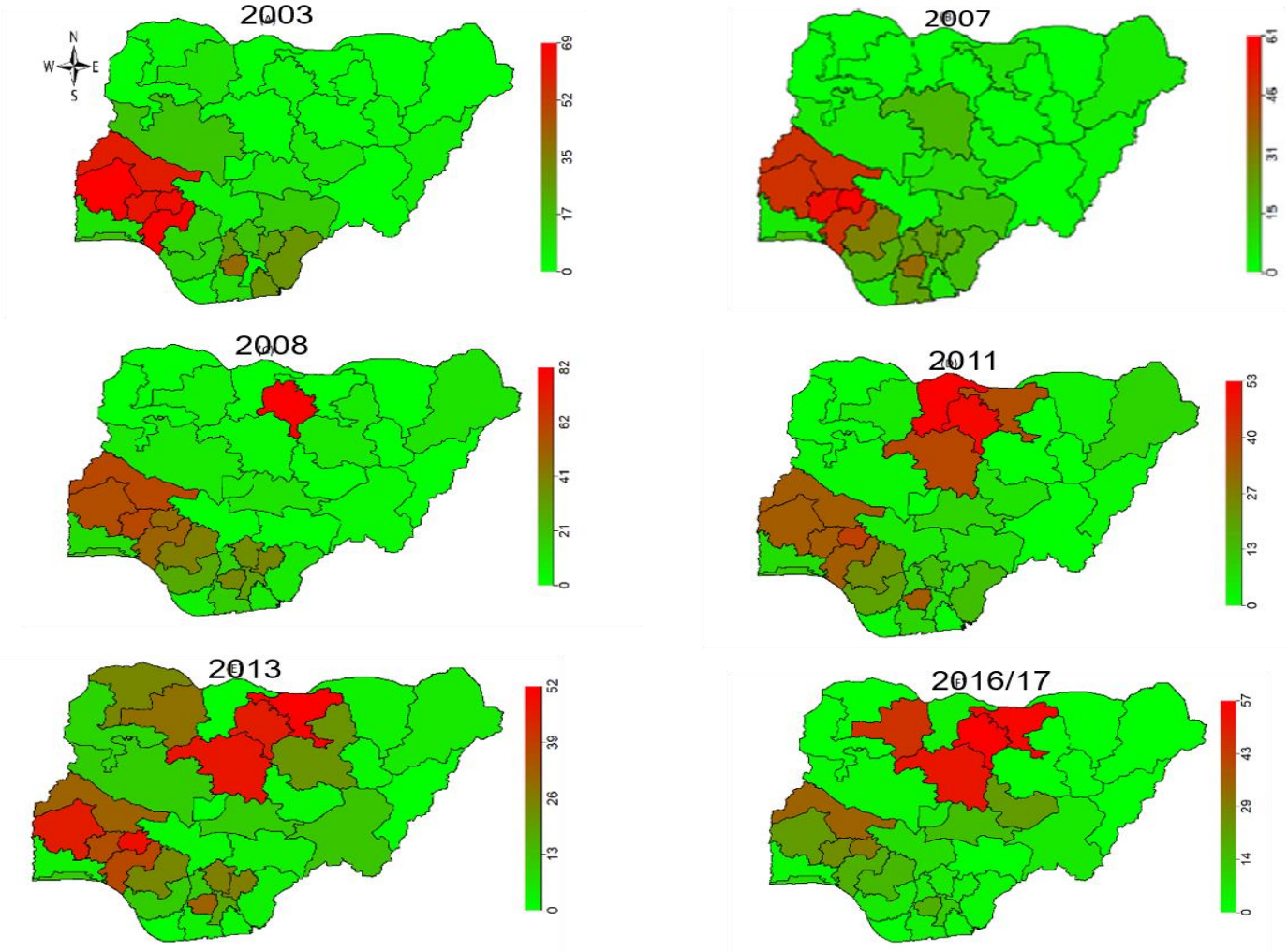
NIGERIA: Shift in the observed rates of FGM/C among girls aged 0-14 at states level from 2003 –to-2016/17.



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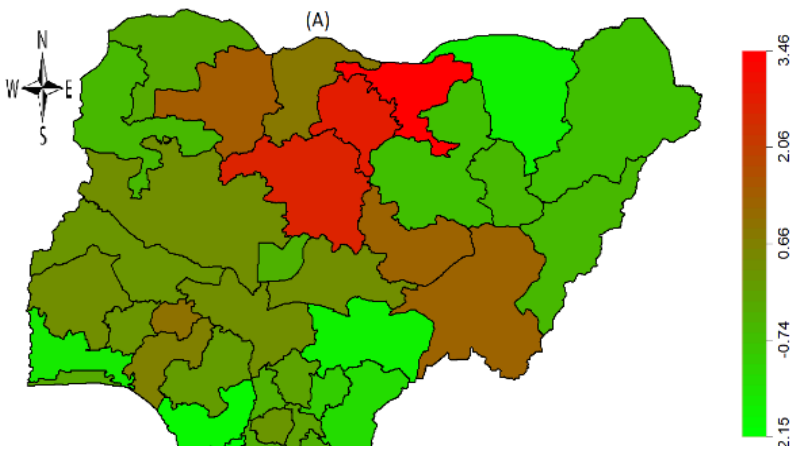
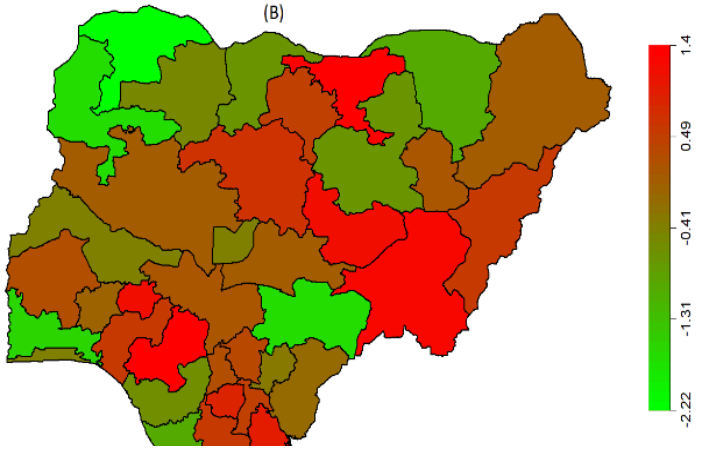
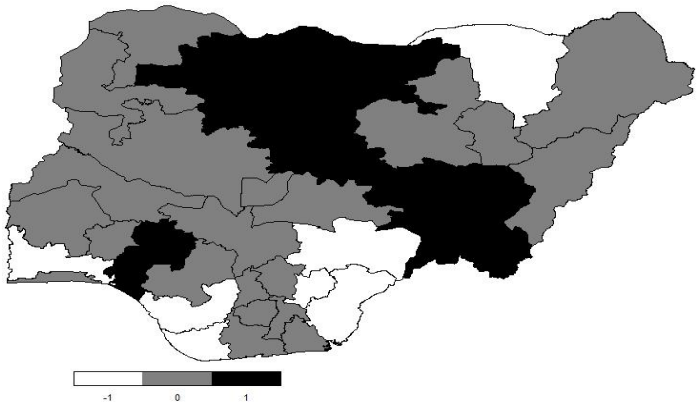
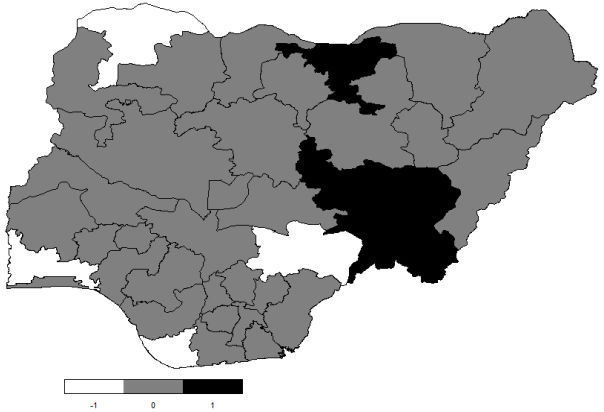
NIGERIA: Average risk maps of FGM/c among girls in Nigeria from 2016/7 (NMICS) at states level derived from the spatial-temporal regression model (social norms unadjusted and adjusted)









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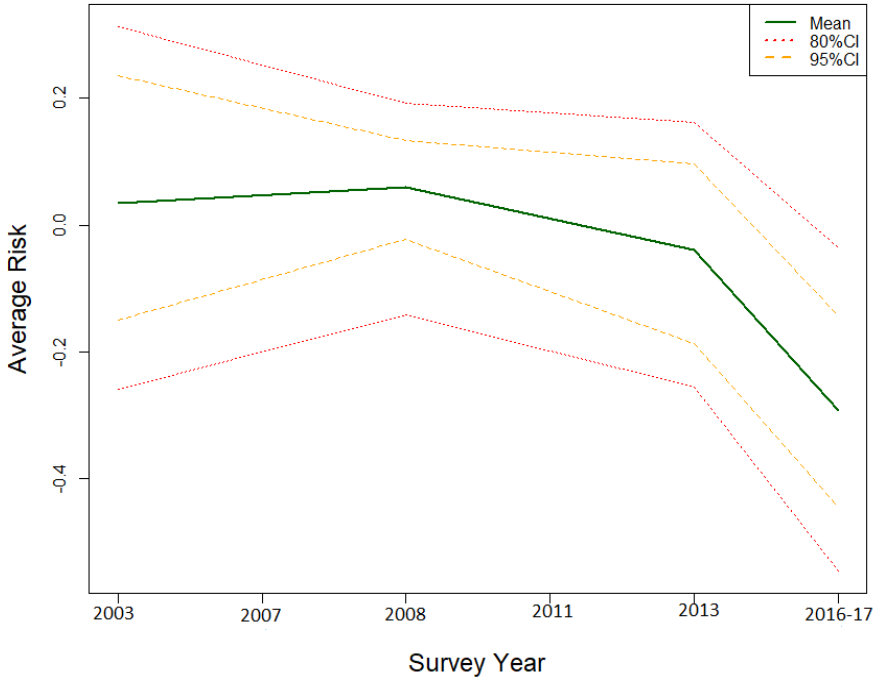
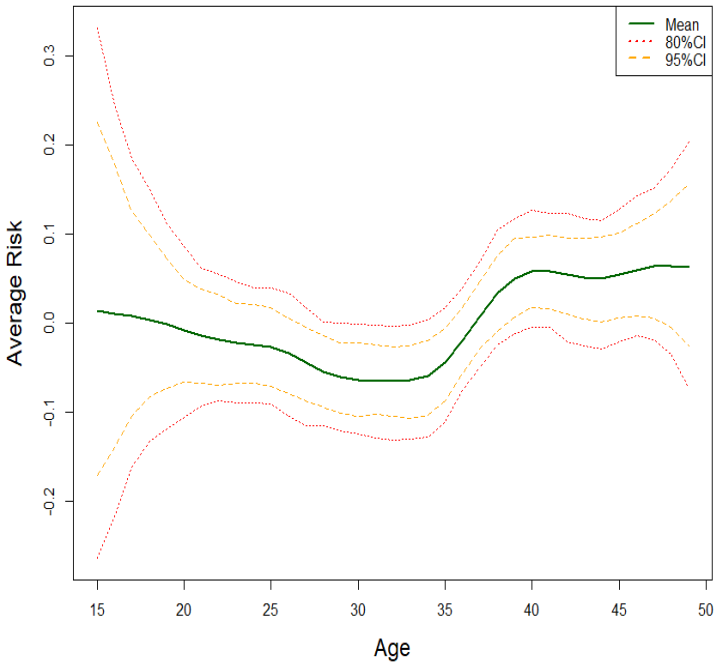
NIGERIA: Estimated time trend (left) mother's age on FGM/C from the space-time model.





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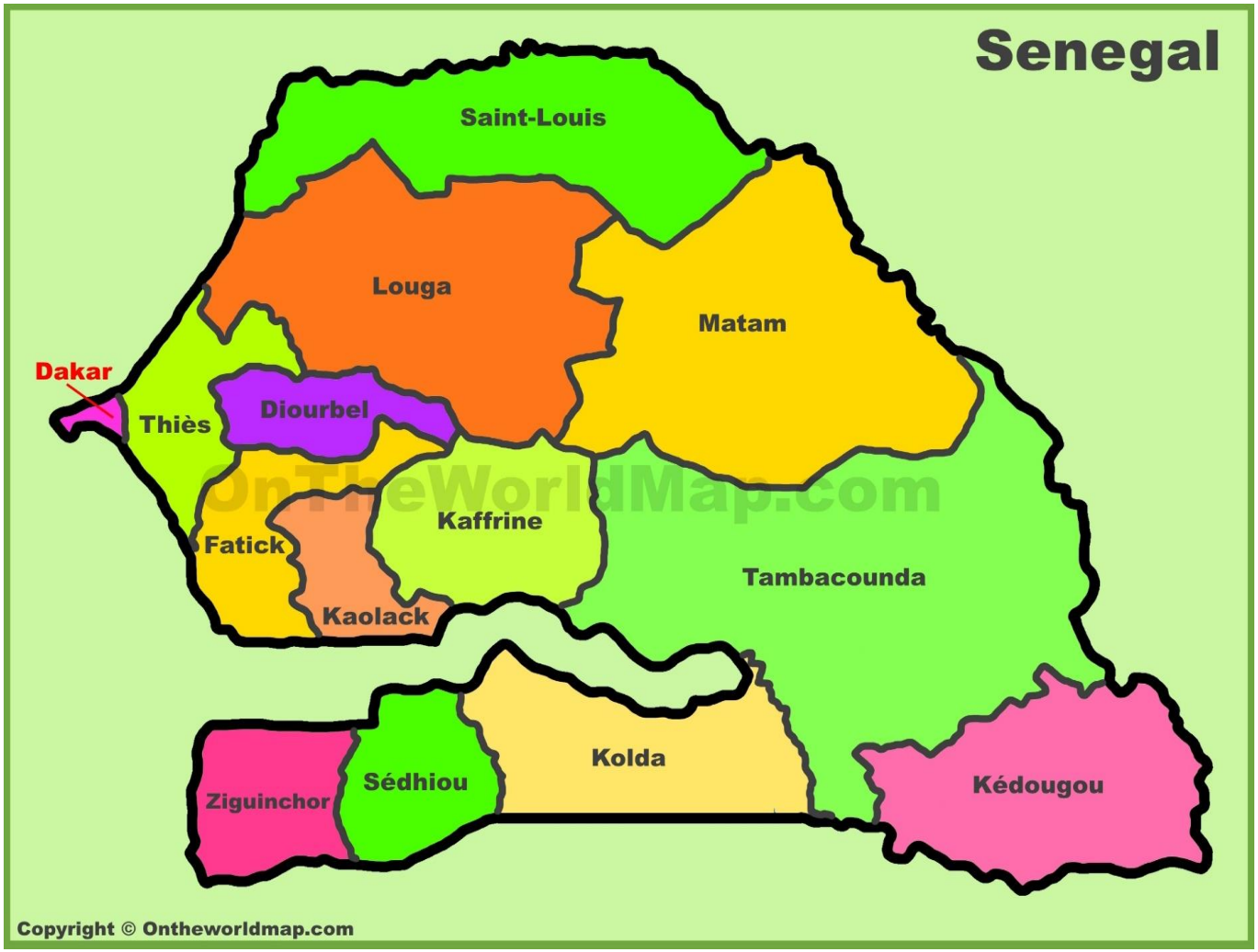
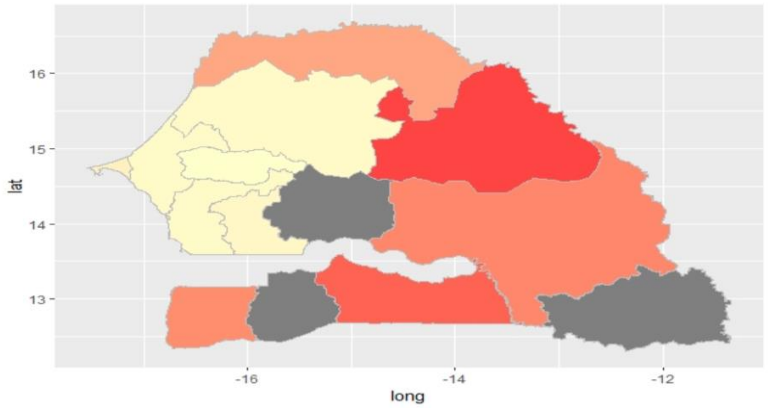
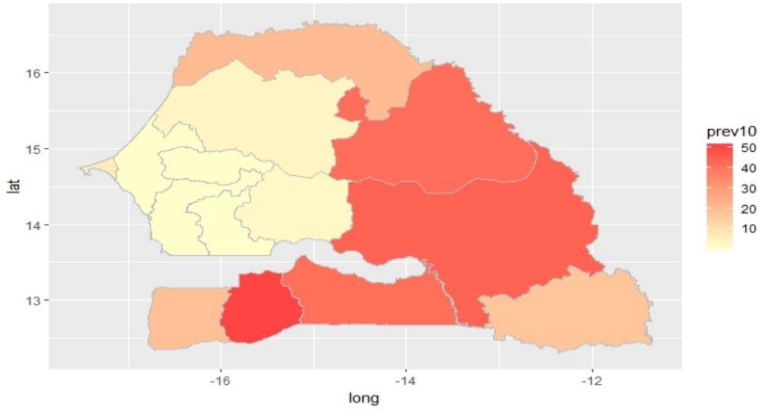
14 PROVINCES OF SENEGAL



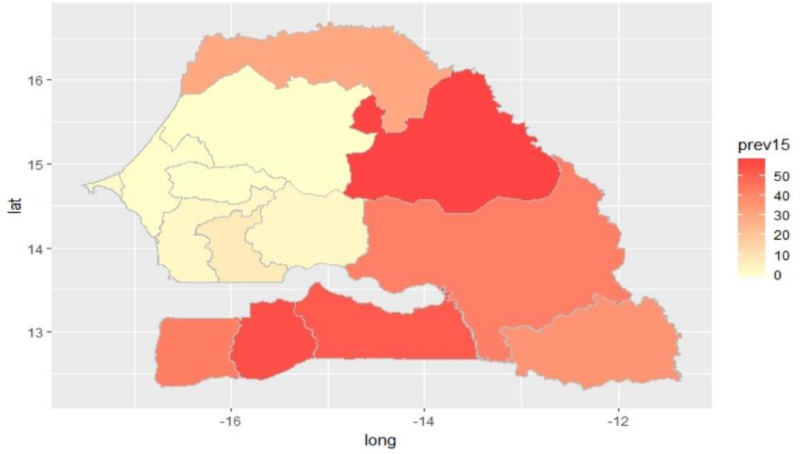
SENEGAL: Variation of the observed rates of FGM/C at regions (provinces) level in 2005, 2010-11, 2015 and 2017.



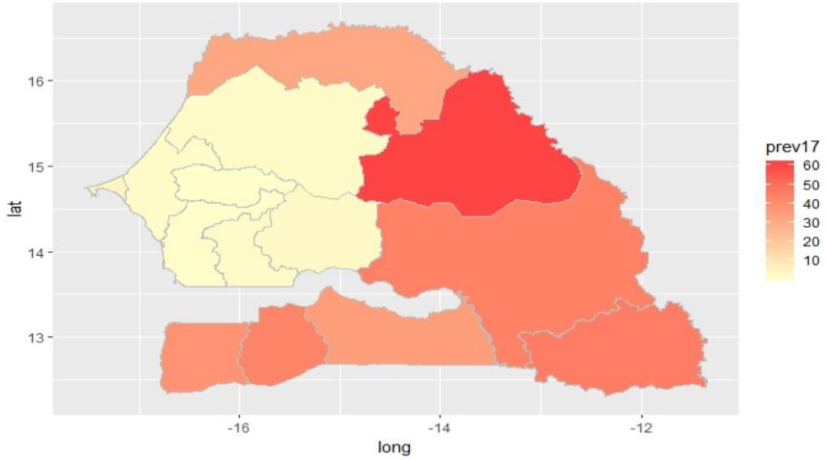
2005



2010



2015



2017

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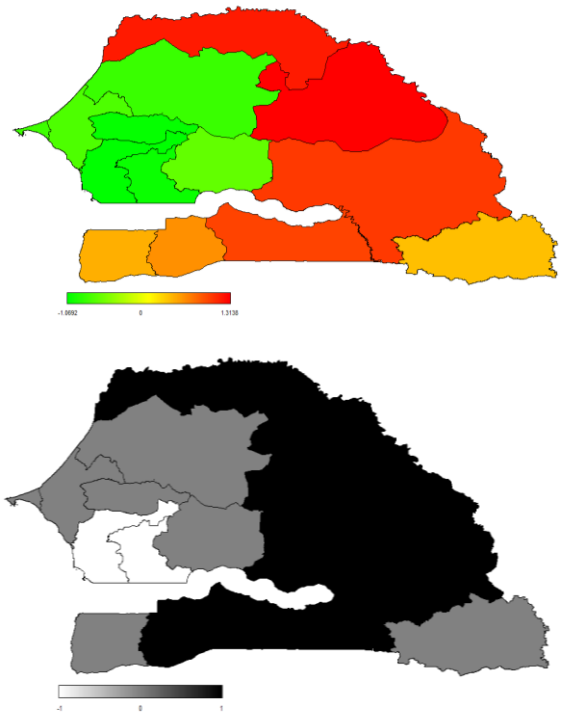
SENEGAL: Predicted prevalence of FGM among girls in Senegal at regions level derived from the spatial-temporal regression model from survey datasets Combined from 2005 – 2017 SDHS (Left) and 2017 DHS (Right)

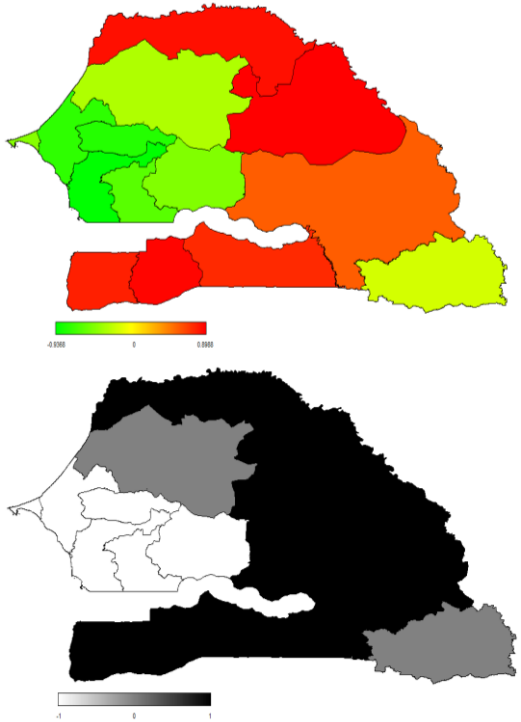
2017 SDHS



95% Posterior Probability

Fully adjusted – Model III

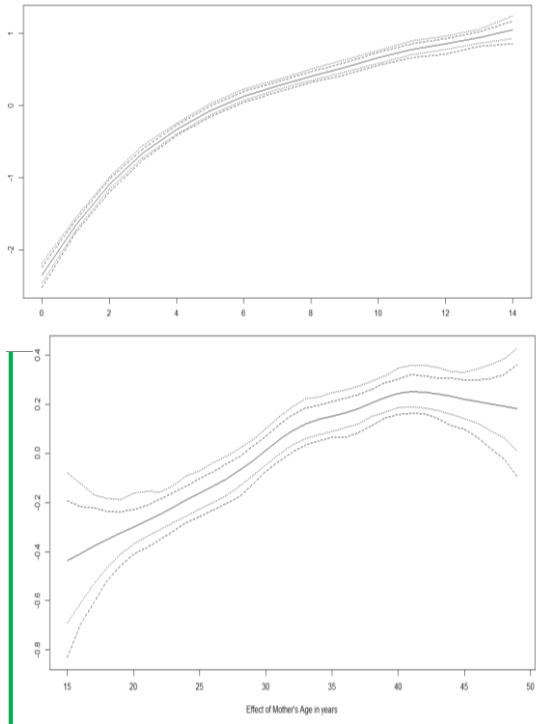
2005-2017 SDHS combined



95% Posterior Probability

Fully adjusted – Model III

2005-2017 SDHS



95% Credible Regions

Fully adjusted – Model III

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Other Socio-Demographics
Girls Aged 0-14

KENYA: Adjusted Posterior Odds Ratios of FGM/C

	2014 KDHS OR (95% CI)	1998-2014 KDHS OR (95% CI)
Residence (Urban)	0.93 (0.89-0.96)	0.85 (0.82-0.88)
No education	3.53 (2.99-4.16)	5.93 (5.21-6.75)
Primary Education	1.49 (1.32-1.69)	2.33 (1.76-3.08)
Secondary Education	1.10 (1.05-1.17)	1.22 (1.01-1.47)
Muslim Religion	4.36 (2.72-7.01)	3.00 (2.18-4.12)
Protestant Religion	1.05 (0.76-1.45)	1.13 (0.95-1.34)
Other Religion	0.44 (0.36-0.53)	0.69 (0.44-1.08)
Age of the household head in years	1.02 (1.02-1.03)	1.04 (1.03-1.04)

KENYA: Adjusted Posterior Odds Ratios of FGM/C

	2014 KDHS OR (95% CI)	1998-2014 KDHS OR (95% CI)
Kalenjin Ethnicity	1.37 (0.11-16.3)	2.46 (1.03-5.84)
Kamba Ethnicity	1.34 (0.11-16.4)	1.45 (1.32-1.59)
Kikuyu Ethnicity	0.31 (0.21-0.44)	0.28 (0.21-0.37)
Kisii Ethnicity	6.97 (5.82-8.35)	3.08 (2.37-4.00)
Luhya Ethnicity	0.84 (0.45-1.57)	0.15 (0.11-0.20)
Luo Ethnicity	0.40 (0.13-1.23)	0.31 (0.23-0.42)
Maasai Ethnicity	4.99 (2.90-8.60)	1.25 (1.19-1.31)
Meru Ethnicity	0.71 (0.35-1.44)	0.57 (0.43-0.76)

KENYA: Adjusted Posterior Odds Ratios of FGM/C

	2014 KDHS OR (95% CI)	1998-2014 KDHS OR (95% CI)
Mijikenda / Swahili Ethnicity	0.21 (0.09-0.50)	0.26 (0.23-0.29)
Somalia Ethnicity	6.08 (3.86-9.57)	4.62 (3.48-6.13)
Taita / Taveta Ethnicity	2.68 (1.24-5.80)	1.32 (0.97-1.78)
Other Ethnicity	4.67 (3.05-7.14)	3.20 (2.42-4.24)
Poorest Wealth Index	1.24 (1.07-1.43)	1.16 (0.95-1.41)
Poor Wealth Index	1.02(0.88-1.17)	1.42(1.18-1.72)
Richer Wealth Index	0.93 (0.78-1.12)	0.90 (0.73-1.12)
Richest Wealth Index	0.55 (0.34-0.89)	0.72 (0.54-0.95)

Kenya: Adjusted Posterior Odds Ratios of FGM/C

	2014 KDHS OR (95% CI)	1998-2014 KDHS OR (95% CI)
Women's attitudes towards FGM/C		
Mother cut	**2.76 (1.33, 6.04)**	**2.34 (0.24, 20.03)**
Circumcision should be stopped	**0.58 (0.42, 0.76)**	
Depends/ Don't know	----------	----------
FGM/C required by religion	**1.41 (0.21, 8.83)**	**25.9(8.39, 119.3)**

NIGERIA: Adjusted Posterior Odds Ratios of FGM/C

	2016-17 NMICS OR (95% CI)	2003-2016/17 OR (95% CI)
Residence (Urban)	**0.83 (0.70, 0.98)**	**0.92 (0.86, 0.98)**
No education	**1.54 (1.12, 2.10)**	**2.54 (2.20. 2.93)**
Primary Education	**1.29 (0.98, 1.71)**	**1.98 (1.74, 2.22)**
Secondary Education	**1.32 (1.05, 1.67)**	**1.58 (1.40, 1.82)**
Higher	**Reference**	

NIGERIA: Adjusted Posterior Odds Ratios of FGM/C

	2016-17 NMICS OR (95% CI)	2003-2016/17 PM (95% CI)
Fulani Ethnicity (Ref)		
Hausa Ethnicity	-----	
Igbo Ethnicity	0.84 (0.56, 1.22)	
Kanuri Ethnicity	----	
Tiv Ethnicity	----	
Yoruba Ethnicity	1.61 (1.13, 2.26)	
Other Ethnicity	0.50 (0.38, 0.66)	

NIGERIA: Adjusted Posterior Odds Ratios of FGM/C

	2016-17 NMICS OR (95% CI)	2003-2016/17 PM (95% CI)
Women's attitudes towards FGM/C		
Mother cut	13.2 (11.2, 15.6)	21.0 (19.6, 22.8)
Circumcision should continue or be stopped	15.0 (12.9, 17.5)	
Depends/ Don't know	3.74 (3.07, 4.63)	
FGM/C required by religion	339.78 (17.90, 1511.54)	
Lowest Wealth Index	1.26 (0.99, 1.59)	1.08 (0.96, 1.21)
Second Wealth Index	1.07 (0.85, 1.33)	1.14 (1.05, 1.25)
Higher Wealth Index	1.07 (0.91, 1.27)	0.89 (0.82, 0.97)
Highest Wealth Index	1.10 (0.88-1.35)	0.83 (0.76, 0.92)

SENEGAL: Adjusted Posterior Odds Ratios of FGM/C

	2017 SDHS OR (95% CI)	2005-2017 SDHS OR (95% CI)
Residence (Urban)	**0.38 (0.26, 0.55)**	**0.54 (0.45, 0.66)**
No education	**----**	**1.23 (0.42, 3.00)**
Primary Education	**0.99 (0.78, 1.25)**	**0.97 (0.31, 2.34)**
Secondary Education	**1.67 (1.14, 2.49)**	**1.37 (0.45, 3.45)**
Muslim Religion	**0.93 (0.39, 1.02)**	
Protestant Religion		
Other Religion		
Age of the household head in years		

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Evidence to End FGM/C

POPULATION COUNCIL Ideas. Evidence. Impact.

SENEGAL: Adjusted Posterior Odds Ratios of FGM/C

	2017 SDHS OR (95% CI)	2005-2017 SDHS OR (95% CI)
Wolof Ethnicity (Ref)		
Poular Ethnicity	3.90 (2.14, 6.67)	3.46 (2.54, 4.68)
Serer Ethnicity	0.46 (0.12, 1.54)	1.03 (0.61, 1.91)
Mandingue Ethnicity	4.58 (2.40, 8.15)	2.82 (2.03, 4.05)
Diola Ethnicity	6.46 (2.87, 13.06)	3.11 (2.16, 4.80)
Soninke Ethnicity	3.83 (1.82, 8.59)	3.93 (2.65, 6.00)
Other Ethnicity	4.15 (2.06, 8.08)	2.59 (1.85, 3.74)
Non Senegalese	3.70 (1.87, 7.29)	2.84 (2.05, 4.05)

SENEGAL: Adjusted Posterior Odds Ratios of FGM/C

	2017 SDHS OR (95% CI)	2005-2017 SDHS OR (95% CI)
Women's attitudes towards FGM/C		
Mother cut	**19.02 (13.43, 26.29)**	**25.17 (20.37, 31.45)**
Circumcision should continue	**6.86 (5.69, 8.27)**	**4.80 (4.35, 5.32)**
Depends/ Don't know	**1.20 (0.77, 1.96)**	**1.28 (1.00, 1.66)**
FGM/C required by religion	**1.82 (1.50, 2.20)**	**1.58 (1.42, 1.76)**
Poorest Wealth Index	**0.93 (0.67, 1.30)**	**0.93 (0.79, 1.11)**
Poor Wealth Index	**0.96 (0.70, 1.33)**	**1.02 (0.87, 1.19)**
Richer Wealth Index	**1.72 (1.23, 2.50)**	**1.27 (1.04, 1.53)**
Richest Wealth Index	**1.27 (0.66, 2.45)**	**0.97 (0.72, 1.31)**

POLICY/PROGRAM IMPLICATIONS OF THESE FINDINGS

IMPLICATIONS OF FINDINGS

Programmatic

- Identification of hot spots (regional and local)
- Interpretation of temporal trend & shifts in FGM/C
- Insights into community level characteristics

Research

- Leverage on existing data sets
- Use of innovative advanced statistical methods
- Provided an harmonized view of the practice, testing the hypothesis and FGM/C theories

Evidence to End FGM/C

Research to Help Girls and Women Thrive

UKaid from the British people

The Evidence to End FGM/C programme consortium generates evidence to inform and influence investments, policies, and programs for ending female genital mutilation/cutting in different contexts.

Evidence to End FGM/C is led by the Population Council in partnership with the Africa Coordinating Centre for the Abandonment of Female Genital Mutilation/Cutting (Kenya); Gender and Reproductive Health & Rights Centre (Sudan); Global Research and Advocacy Group, Senegal (GRAG); MannionDaniels, Ltd.; Population Reference Bureau; University of California, San Diego; and University of Washington. Evidence to End FGM/C is funded by UK aid by the UK Government.

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Leading Innovative Research

Ngianga-Bakwin Kandala · Paul Nzinga Komba

Female Genital Mutilation around The World:

Analysis of Medical Aspects, Law and Practice

This book uses global household data to examine the prevalence, trends and geographic variation of female genital mutilation (FGM) around the world. It also addresses the underlying legal and policy aspects as well as explores the medical consequences, both immediate and long term, for those undergoing the practice. The book analyses the position of victims of this gender-based violence both from the medical and legal perspective and adopts a largely practical approach to the study of the practices, offering a fresh thinking into one of the challenges in global health and the law. In addition, it offers some insights into how health professionals can approach this category of victims and how legal practitioners can obtain a good legal result for their clients before domestic and international forums. The book addresses fundamental issues such as state liability and defences in enforcement proceedings for actions or omission of state or non-state actors, and due diligence standard in international human rights law, the main gateways available for obtaining relief for the victims of FGM. This book goes beyond the traditional debate between zero tolerance and those who wish to see the practice medicalised and tolerated and favours an advocacy programme standing firmly in favour of the right of FGM victims. This book offers a unique perspective likely to assist victims and their representatives to secure a remedy against perpetrators and the state. As such this book will be of interest to medical professionals, national and international lawyers, academics and policymakers in the field of public health.

Public Health

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The Springer Series on Demographic Methods and Population Analysis 34

Ngianga-Bakwin Kandala · Gebrenegus Ghilagaber *Editors*

Advanced Techniques for Modelling Maternal and Child Health in Africa

This book presents both theoretical contributions and empirical applications of advanced statistical techniques including geo-additive models that link individual measures with area variables to account for spatial correlation; multilevel models that address the issue of clustering within family and household; multi-process models that account for interdependencies over life-course events and non-random utilization of health services; and flexible parametric alternatives to existing intensity models. These analytical techniques are illustrated mainly through modeling maternal and child health in the African context, using data from demographic and health surveys.

In the past, the estimation of levels, trends and differentials in demographic and health outcomes in developing countries was heavily reliant on indirect methods that were devised to suit limited or deficient data. In recent decades, world-wide surveys like the World Fertility Survey and its successor, the Demographic and Health Survey have played an important role in filling the gap in survey data from developing countries. Such modern demographic and health surveys enable investigators to make in-depth analyses that guide policy intervention strategies, and such analyses require the modern and advanced statistical techniques covered in this book.

The text is ideally suited for academics, professionals, and decision makers in the social and health sciences, as well as others with an interest in statistical modelling, demographic and health surveys. Scientists and students in applied statistics, epidemiology, medicine, social and behavioural sciences will find it of value.

Social Sciences

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Advanced Techniques for Modelling Maternal and Child Health in Africa

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STATISTICAL MODELLING OF COMPLEX CORRELATED AND CLUSTERED DATA USING SURVEYS IN AFRICA

NGIANGA-BAKWIN KANDALA, PH.D.
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RESEARCH METHODOLOGY AND DATA ANALYSIS

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Law and FGM in Sub-Saharan Africa, North Africa and the Middle East

Dr. Satang Nabaneh

Research Forum
June 17, 2021

Centre for Human Rights
Faculty of Law
University of Pretoria
South Africa
www.chr.up.ac.za

Centre for Human Rights
UNIVERSITY OF PRETORIA

FGM as a human rights violation

- The recognition of FGM as a gross violation of the human rights of girls and women is well recognised in numerous international conventions, declarations and treaties.
- All forms of FGM violate a range of human rights of girls and women including the right to non-discrimination, to protection from physical and mental violence, to the highest, attainable standard of health, and, in the most extreme cases, to the right to life.
- FGM also constitutes torture and cruel, inhuman or degrading treatment.

UN Level

- CEDAW prohibits traditional practices that discriminate against women and harm children but does not specifically mention FGM
- The CRC mandates states to abolish "traditional practices prejudicial to the health of children." (Article 24 (3)).
- Human Rights Committee: FGM is in breach of article 7 of the ICCPR and constitutes torture or other cruel, inhuman or degrading treatment or punishment and has also raised concerns regarding its persistence
- CEDAW and CRC Committees have made numerous observations recognizing FGM and other harmful practices as "harmful to the health of women and children" and "carry a high risk of death and disability."
- CEDAW General Recommendation No. 24 specifically urged governments to devise health policies that take into account the needs of girls and adolescents who may be vulnerable to traditional practices such as FGM.

FGM and the Maputo Protocol

- The Maputo Protocol is the only human rights instrument that explicitly refers to FGM under Article 5 specifically obligates states to take all necessary measures to eliminate FGC through legislative measures backed by sanctions, of all forms of female genital mutilation, scarification, medicalisation and para-medicalisation of FGM.
- Article 3 on violence against enjoins African governments to ensure that victims of all violence, (including those perpetuated as a result of cultural practices) are rehabilitated.
- A joint reading of these provisions would seem to show that the Protocol has adopted a three-prong approach to eradicating cultural practices such as FGM/C.
    - Use of criminal law to curb the spread of this practice
    - Education and awareness campaign that addresses behavioral change in societies
    - Rehabilitating victims of all forms of violence

Recent national legal and policy trends in sub-Saharan African countries

- Some 60 countries around the world have adopted national laws penalizing FGM (26 countries in Africa and the Middle East).
- In most African countries, the use of sanction to address FGM is by far the commonest response adopted by African governments.
- Countries such as Ghana (1994), Burkina Faso (1996), Ivory Coast (1998), Senegal (1999), Djibouti (1995) and Togo (1998) banned the practice of FGM early on.
- Trend of criminalisation is evident in penal codes, specific anti-FGM laws, women's act and domestic violence acts.
- Recently countries such as Zimbabwe, Uganda, South Sudan, Kenya, Guinea Bissau, Mozambique, The Gambia and Cameron all have laws that punishes the practice of FGM in these countries.
- 2020: Sudan passed landmark FGM law

See: World Bank "Compendium of international and national legal frameworks on female genital mutilation" (2018)

Table 3 – Summary of how FGM is incorporated into national legislative frameworks:

Country	Specific National Anti-FGM Law in Place	Prohibits FGM Within Another Domestic Law	Type of Law
Benin	✓	✓	Child/VAW
Burkina Faso		✓	Penal Code
Cameroon		✓	Penal Code
CAR		✓	VAW/Penal Code
Chad	–	–	–
Côte d'Ivoire		✓	VAW
Djibouti		✓	Penal Code
Egypt		✓	Penal Code
Eritrea	✓		
Ethiopia		✓	Criminal Code
The Gambia		✓	Women's Act
Ghana		✓	Criminal Code
Guinea		✓	Child/Criminal Code
Guinea Bissau	✓		
Kenya	✓	✓	Child/Domestic Violence
Liberia	–	–	–
Mali	–	–	–
Mauritania		✓	Child
Niger		✓	Penal Code
Nigeria		✓	Violence Against Persons
Senegal		✓	Penal Code
Sierra Leone	–	–	–
Somalia	–	–	–
Somaliland	–	–	–
South Sudan		✓	Penal Code/Child
Sudan	–	–	–
Tanzania		✓	Sexual Offences/ Penal Code
Togo	✓	✓	Penal Code
Uganda	✓	✓	Child

**Sudan passed law in 2020*

28 Too Many 'The Law and FGM' (2018)

FGM laws in Northern Africa and Middle East

- North Africa: Egypt (2008 and stricter penalties in 2016 amending article 242 of the Penal Code)

- Middle East: Only Iraq (2011) and Oman have specific laws or legal provisions banning female genital mutilation.

General provisions

- Iran (amputation and damage to the female genitalia)
- Bahrain (1976 Penal Code: mutilating victim's body)
- Kuwait: Law 21 of 2015 on Children's Rights has no specific provisions on FGM. It covers children's
- rights in general, including bodily integrity and the prohibition of all forms of violence

- The penalties range from a minimum of three months to a maximum of life in prison.
- Several countries also impose monetary fines.
- There have been reports of prosecutions or arrests in cases involving FGM in several African countries, including Burkina Faso, Egypt, Ghana, Senegal, and Sierra Leone.
- In 2016, the government of Burkina Faso reported to the CEDAW Committee that, according to the data of all regional courts of Burkina Faso, in 2009, 241 persons were convicted for violating the law prohibiting FGM (*Seventh Periodic Report, Burkina Faso, CEDAW/C/BFA/7, 27 May 2016*).

Law and Advocacy for Women in Uganda v. The Attorney General
[2010] UGCC 4 Constitutional Petition no 8 of 2007
Uganda, Constitutional Court

Issue

Whether the custom and practice of FGM was unconstitutional (in accordance with Article 2(2) of the Constitution, alleging that it violated the right to life guaranteed under Article 22(1); the right to dignity and protection from inhuman treatment, secured under Article 24; the rights of women recognised under Article 33; and the right to privacy guaranteed under Article 27(2) of the Constitution) and should be prohibited?

Decision

The Court held that FGM violates the rights of women enshrined in Articles 21, 24, 32(2), 33, and 44 of the Constitution, and, to the extent that girls and women are known to die as a direct consequence of FGM, also Article 22 of the Constitution. The Court therefore held that FGM must be prohibited in the jurisdiction, for being inconsistent with the Constitution.

Dr. Tatu Kamau v Attorney General & Others
[Constitutional Petition no 244 of 2019] High Court of Kenya

Issue

The medic, Dr. Tatu Kamau, had challenged the constitutionality of the Prohibition of Female Genital Mutilation Act arguing that Sections of the Act contravene Articles of the Kenyan Constitution, by prohibiting an adult woman from freely choosing to undergo FGM under a trained and licensed medical practitioner thereby denying women access to the right to healthcare.

Decision

On 17 March 2021, the High Court ruled that the practice of FGM violates a woman's right to health, human dignity and in instances when it results in death, the right to life, adding that the practice also undermines international human rights standards

Legislating change: What does the evidence tell us?

- FGM is still practiced despite legal and policy reform. Most of these laws have not been effective in curbing the practice of FGC in affected countries.
- Pre-education was not adequate
- Consideration of laws as foreign and a challenge to their culture
- Campaigns do not address the root causes of FGM
- Given the widespread nature of the practice and the fact that it is rooted in deep cultural practice, little evidence exists to show how far governments will go to raise public awareness about FGM and ensure the effective implementation of the law.

Research gaps

1. What kind of law on FGM do we want to see?
2. How do current laws and policies actually work in practice?
3. Understanding the use/limitations of litigation strategies.
4. Attitudes and tendencies towards obeying the law and continuing FGM/C practises.
5. Medicalization of FGM. Is it ethical? Should it be seen as a harm reduction? Can it be regulated by law?
6. Role of law in reducing FGM/C and on shifting norms and practice
7. The impact of the general weaknesses of criminal justice system on the prosecution of FGM/C cases

Conclusion

- Recognizing that legal prohibition can be ineffective, it is however, an important and necessary step in providing an enabling environment for change
- Other strategies such as awareness creation, capacity building of law enforcers, participation of children and young people, livelihood skills for ex-circumcisers, dialogue with religious and traditional leaders, engagement with men and boys should be enhanced to complement the legal reform

Costing FGM to support Decision Making for Eradication and Elimination in SSA: What Evidence do we have?

Patricia Akweongo

School of Public Health-University of Ghana

Outline

- Overview of Costing on FGM
  - Economic Evaluation
  - Cost perspective
  - Disease Burden Estimate
  - Financial and Economic Costs
- FGM costing estimates in 6 African Countries
- WHO FGM Cost Calculator
- Gaps
- Burning Issues to Address

Economic Evaluation of FGM

- Economic evaluation using clinical, epidemiological and economic data allows for a comparative analysis of alternative actions in terms of costs and health outcomes.
- Examines and assesses economic burden of the disease to society, household or health system or government.
- It calculates the financial costs and the economic costs (opportunity costs) of the disease/condition
- full-economic evaluations of healthcare intervention
  - evaluations where both costs and outcomes have been measured
- Partial economic Evaluation:

Financial and Economic Costs

- **Perspective of analysis**
  - In terms of which costs are considered
    - e.g., society, healthcare system, hospital, others

- **Type of Costs**
  - Direct
  - Indirect Costs
  - Intangible Costs

Estimating Disease Burden Data

- We estimate the burden of disease using disability-adjusted life years (DALYs)
  - *a time-based summary measure of population health combining the years of life lost (YLLs) for early death and the years of life lost due to the time living with disability (YLDs).*
  - *Example: Dying early due to complications resulting from FGM*
  - *OR sustaining the injury of FGM and living with that disability (fistula, etc)*
- Mortality data

Outcome measure

- cost per life year gained
- or cost per quality-adjusted life year

FGM Costing Evidence:
Estimating the obstetric costs of female genital mutilation in six African countries (Adams et al 2009)

- Model data from 6 African Countries
  - Target age 15-45 years
  - WHO Classification of FGM
  - Prevalence Data
  - Incidence data
  - Projected future Costs and Savings

- Adopted Government perspective-Cost to health system and budget spending by specific countries
- Based on estimated FGM prevalence

Table 2. **Prevalence of obstetric outcomes, by type of female genital mutilation, in a modelled cohort of women of reproductive age (15-45 years) in six African countries**

Parameter	Mean/median	95% CI	Assumed distributionb
Caesarean section prevalence (FGM-0)c	0.07		Beta
Caesarean section RR			
FGM-1d	1.03	0.88-1.21	
FGM-2e	1.29	1.09-1.52	Truncated normal of log(RR) (−2.5, 2.5)
FGM-3f	1.31	1.01-1.70	
Haemorrhage prevalence (FGM-0)	0.06		Beta
Haemorrhage RR			
FGM-1	1.03	0.87-1.21	
FGM-2	1.21	1.01-1.43	Truncated normal of log(RR) (−2.5, 2.5)
FGM-3	1.69	1.34-2.12	
Inpatient stay prevalence (FGM-0)	0.06		Beta
Inpatient stay RR			
FGM-1	1.15	0.97-1.35	
FGM-2	1.51	1.29-1.76	Truncated normal of log(RR) (−2.5, 2.5)
FGM-3	1.98	1.54-2.54	
Inpatient perinatal death prevalence (FGM-0)	0.04		Beta
Inpatient perinatal death RR			
FGM-1	1.15	0.94-1.41	
FGM-2	1.32	1.08-1.62	Truncated normal of log(RR) (−2.5, 2.5)
FGM-3	**1.55**	**1.12-2.16**	

Table 3: Incidence-based estimates of costs and years of life lost per incident case of FGM in a modelled cohort of women of reproductive age (15-45 years)

Country	FGM-3		FGM-2		FGM-1		Weighted averageb	
	YLLa	Cost (I$)	YLL	Cost (I$)	YLL	Cost (I$)	YLL	Cost (I$)
Burkina Faso	0.31	3.81	0.09	2.91	0.01	0.38	0.10	**2.34**
Ghana	0.19	4.30	0.06	2.13	0.01	0.37	0.05	**1.70**
Kenya	0.21	7.34	0.06	2.92	0.01	0.61	0.07	**2.86**
Nigeria	0.27	4.04	0.09	2.35	0.02	0.02	0.04	**0.70**
Senegal	0.26	4.13	0.08	2.49	0.01	0.40	0.06	**1.86**
Sudan	0.23	5.81	0.07	2.56	0.01	0.49	0.21	**5.33**
Weighted averageb	**0.23**	**5.82**	**0.08**	**2.50**	**0.02**	**0.11**	**0.07**	**1.71**

Table 4: Incidence-based estimates of costs and years of life lost per incident case of FGM in a modelled cohort of women of reproductive age (15-45 years)

Country	FGM type	No. of cases	Annual FGM-related cost		
			Per FGM case (I$)	Total (I$)	As per cent of public health spending on women aged 15-45 yearsa
Burkina Faso	0	547 558	Reference	Reference	
	1	640 374	0.02	13 458	
	2	1 267 906	0.15	193 622	
	3	355 504	0.20	71 348	
	All	2 811 343		278 428	**0.309**
Ghana	0	3 133 331	Reference	Reference	
	1	598 854	0.02	12 022	
	2	1 470 841	0.11	163 334	
	3	55 984	0.22	12 348	
	All	5 259 009		187 704	**0.115**
Kenya	0	3 299 611	Reference	Reference	
	1	1 697 896	0.03	57 125	
	2	2 357 426	0.16	380 133	
	3	824 412	0.40	329 557	
	All	8 179 346		766 815	**0.375**
Nigeria	0	3 418 855	Reference	Reference	
	1	17 829 912	0.00	15 732	
	2	6 932 973	0.12	851 480	
	3	216 986	0.21	46 173	
	All	28 398 726		913 385	**0.247**
Senegal	0	604 892	Reference	Reference	
	1	690 716	0.02	12 518	
	2	1 526 673	0.13	193 066	
	3	23 932	0.21	5 045	
	All	2 846 213		210 629	**0.308**

Fig. 1. Annual obstetrical costs related to female genital mutilation as a percentage of all government health spending on women

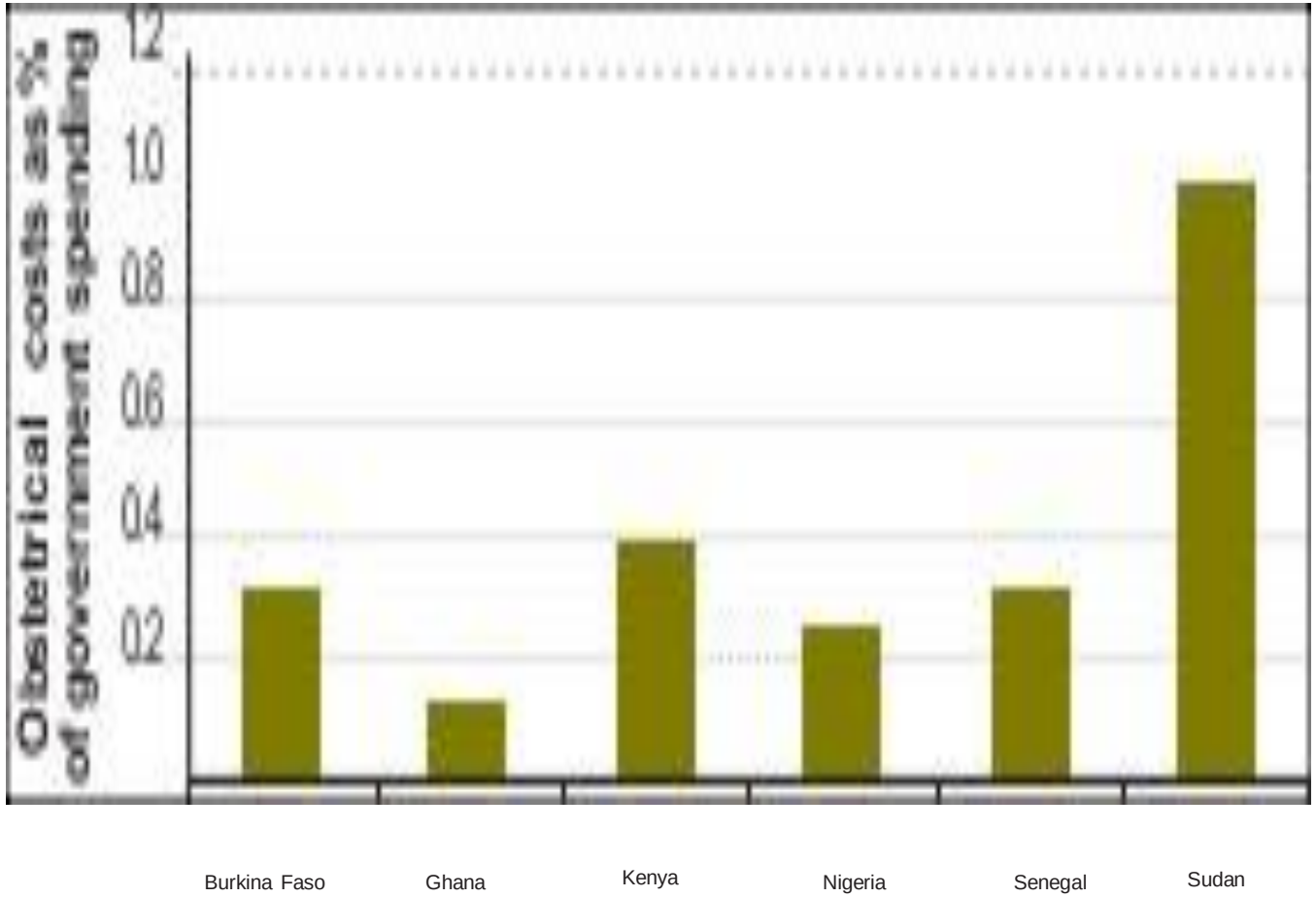


Table 5. Future years of life lost as a result of incident female genital mutilation cases for the 15-year-old population in six African countries

FGM type	No. of women aged 15 yearsa	FGM prevalence in women aged < 20 years	No. of women aged 15 years, by FGM type	Future YLL per incident case b	Future YLL for current female population aged 15 years
0		0.227	33 746	Reference	Reference
1		0.256	37 946	0.01	379
2	148 400	0.391	57 965	0.09	5 217
3		0.126	18 728	0.31	5 806
All					11 402
0		0.686	168 555	Reference	Reference
1	245 600	0.074	18 199	0.01	182
2		0.222	54 572	0.06	3 274
3		0.017	4 273	0.19	812
All					4 268
0		0.431	180 498	Reference	Reference
1	418 400	0.156	65 061	0.01	651
2		0.273	114 265	0.06	6 856
3		0.140	58 618	0.21	12 310
All					19 816
0		0.138	199 590	Reference	Reference
1	1 448 400	0.764	1 107 157	0.02	22 143
2		0.096	138 467	0.09	12 462
3		0.002	3 186	0.27	860
All					35 466
0		0.104	14 081	Reference	Reference
1	135 000	0.254	34 290	0.01	343
2		0.623	84 146	0.08	6 732
3		0.018	2 484	0.26	646
All					7 720
0	374 400	0.323	120 856	Reference	Reference
1		0.066	24 710	0.01	247

WHO FGM Cost Calculator

- Estimates the current and projected financial health care costs associated with FGM in specific countries
- Estimates potential cost savings to health systems of reducing new cases of FGM.
- How to use WHO FGM Cost Calculator
  - From Interactive map
    - Select country of interest
    - Must click on Calculator button to display visuals
    - Click on Parameter button to adjust
      - epidemiological metrics,
      - prevention intervention effectiveness,
      - included costs
- This mainly costs from health system perspective
- Based on Estimates

Gaps in Costing studies -

- Estimating the financial and Economic burden to the Household
  - What are the costs to the individual and household of women undergoing FGM
    - Direct costs of health care
    - Indirect costs- caregiver time, lost productivity, years of life lost to the family, etc
    - Intangible Costs
      - Pain, disability, trauma, these are cost not visible but could be estimated

Gaps in Costing studies -

- Perspective
  - Societal level perspective
  - Household level perspective
  - *Health system level perspective*

- Real time and real life data
  - Current estimates based on modelling
  - Country specific real data is needed to convince policy makers to want to invest in FGM eradication and elimination

Burning Issues to address?

- What are real the costs of FGM?
  - Whose costs are we considering?
- Health outcomes-we do know this to some extent
- Is the practice worth the costs to society, household or the health system?
- Are current interventions on FGM cost-effective?

Thank you!

Questions???

Identifying And Prioritising Research To End Female Genital Mutilation/ Cutting (FGM/C) In Sub-Saharan Africa, the Middle East and North Africa

June 17th, 2021,

The socio-cultural and religious determinants of FGM/C in SSA & MENA

Prof. Nafisa M.Bedri,
Ahfad University for Women, Sudan

Female Genital Mutilation/Cutting (FGM/C): A Worldwide Problem

Practiced in

31 African countries, & west among diaspora

Over 200 million girls & women currently living with FGM/C

92 million girls 10 years old & above in Africa have FGM/C

Over 3 million Young girls between few days old to 15 years at risk annualy

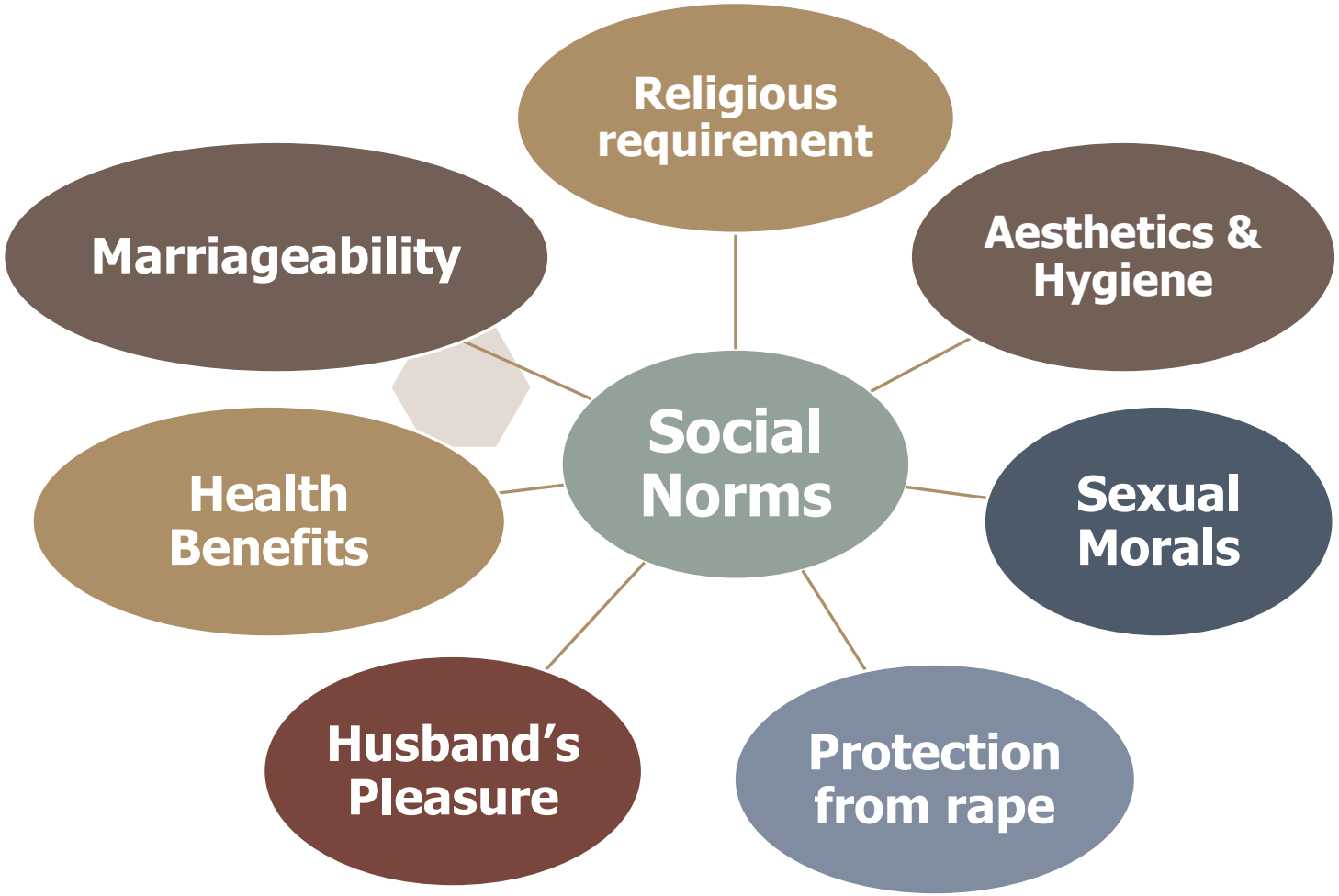
Trends in FGM Practice

- Types I, II and III FGM have been documented in 31 countries in Africa & in a few countries in Asia & the Middle East
- The **type of procedure performed also varies**, mainly with ethnicity & practitioner.
- Around **90% of FGM cases include Types I** or II & about 10% are Type III

Who Performs FGM

- Elderly people in the community (usually, but not exclusively, women) specially designated for this task
- Traditional birth attendants (TBAs).
- In some cases, medical personnel for a fee where **1 in 5** of all FGM is performed by health care providers, & trend towards medicalization is increasing.
- FGM may be carried out by traditional health practitioners, (male) barbers, members of secret societies, herbalists, and sometimes by a female relative.

Drivers of FGM Practice



Why FGM is carried out?

- **Religious reasons** often mentioned & sometimes **misused to sustain the practice**. Evidence by religious scholars showed the practice does not have any religious origins.

- **Cultural reasons:** Customs and traditions are by far the most frequently cited reasons for FGM & have a very big role in shaping social practices and their continuity.

Other Social Reasons for FGM

- Motivation varies from setting to setting
- Believed to: maintain cleanliness, increase chances of marriage, protect virginity,
  - Discourage "female promiscuity”.
  - Discourages rape
- Perceived expectations from significant social network for girl to be cut

Patriarchy & control of female sexuality

- Studies revealed that the drivers of FGM/C are all driven by the deeply rooted gender inequality and patriarchal ideologies
- These often perceive females as weak & vulnerable & need protection & control of their bodies by males in the family & older females.

Hidden Economic Aspects of FGM

- Money and gifts given to the girls
- Monetary gain for practitioners
- Main source of income for front line health providers like village midwives /TBAs
- Economic gain for family from giving daughter in marriage

FGM/C Regional & In-Country Specificity

- Age of the practice
- Reasons for the practice
- Rituals around the practice
- Link to social mechanisms/social networks
- Person performs the practice
- Person makes final decision

Final Conclusion:

- Culture, traditions, & religion are often used to justify practice
- Marriageability & protection of girls specially in emergency settings drive the practice
- Clear religious statements against all types to stop religion from being a reason for the practice
- Young and older men & leaders have significant role in influencing abandonment

Thank you

CLINICAL CONTEXT IN SSA AND MENA

PROF. GUYO JALDESA

INTRODUCTION

- **Definition**:

FGM consists of all procedures that involve partial or total removal of the external female genitalia or other injury to the female genital organs whether for cultural or other non-therapeutic reasons.

“Female genital mutilation is a form of violence against girls and women that has serious physical and psychological consequences which adversely affect health and is a reflection of discrimination against women and girls.”

World Health Organization. *Regional Plan of Action to Accelerate the Elimination of Female Genital Mutilation in Africa.* Brazzaville: WHO, 1997.

FGM in Africa

- **Deep-rooted traditional practice** that is debilitating and irreversible
- Practised in **28 out of the 52 countries Africa**
- **Cut women: 120-140 million**
- **Girls at annual risk: 3 million**
- Age is carried out varies from 0 to 20 years
- Practitioner is generally a woman

Country prevalence

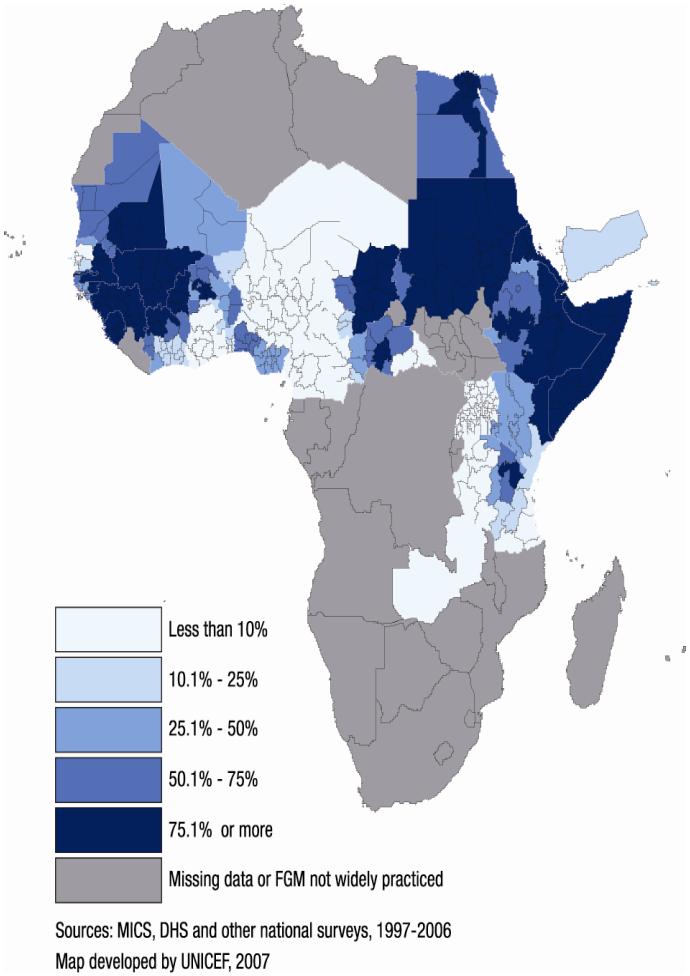
Somalia	98
Egypt	96
Guinea	96
Sierra Leone	94
Djibouti	93
Mali	92
Sudan	90
Eritrea	89
Gambia	78
Ethiopia	74
Burkina Faso	73
Mauritania	72
Liberia	58
Chad	45
Guinea-Bissau	45
Côte d'Ivoire	36
Kenya	32
Senegal	28

Yemen	23
Nigeria	19
Tanzania	15
Benin	13
Togo	6
Ghana	4
Niger	2
Cameroon	1
Uganda	1
Zambia	1

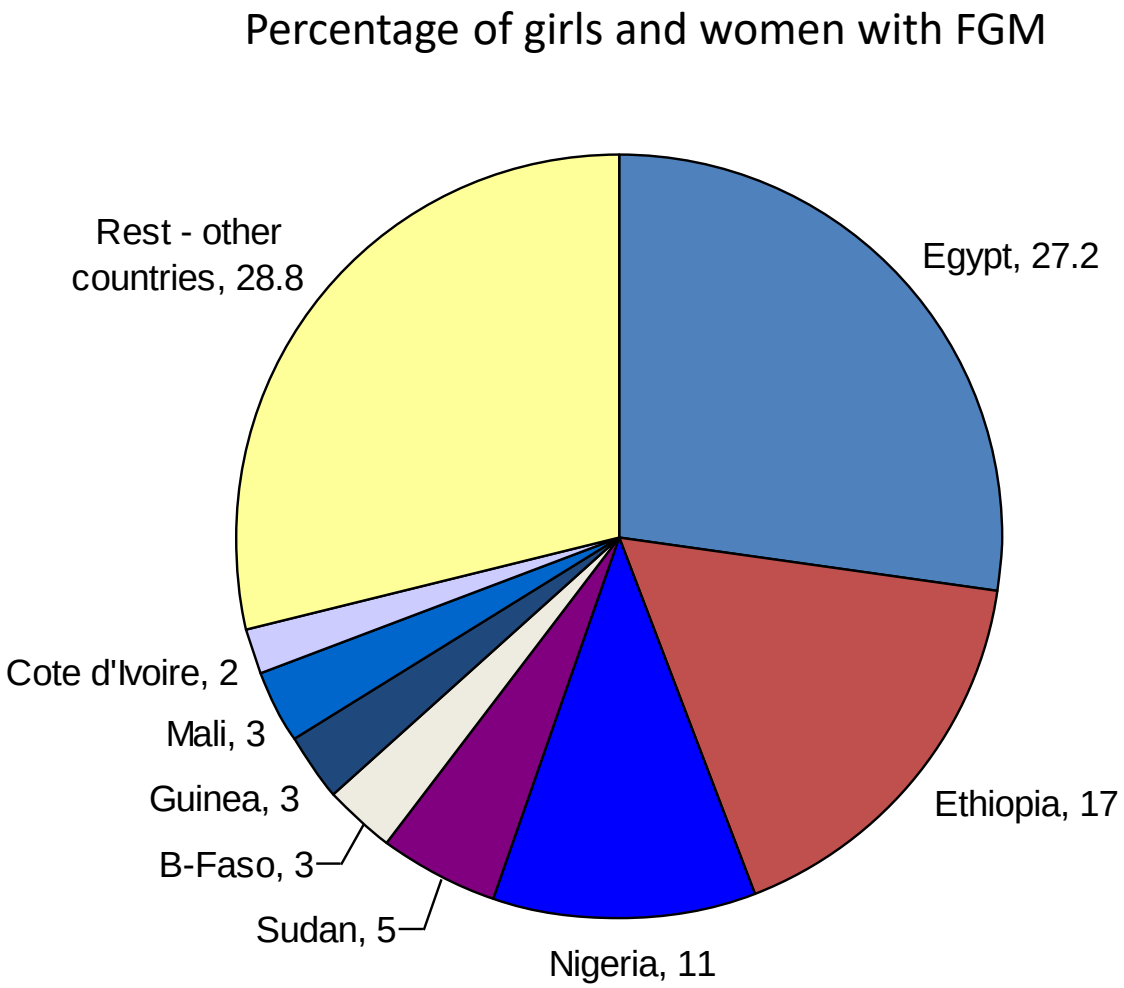
Outside Africa

Indonesia
India
Sri Lanka
Iraq
Latin-America

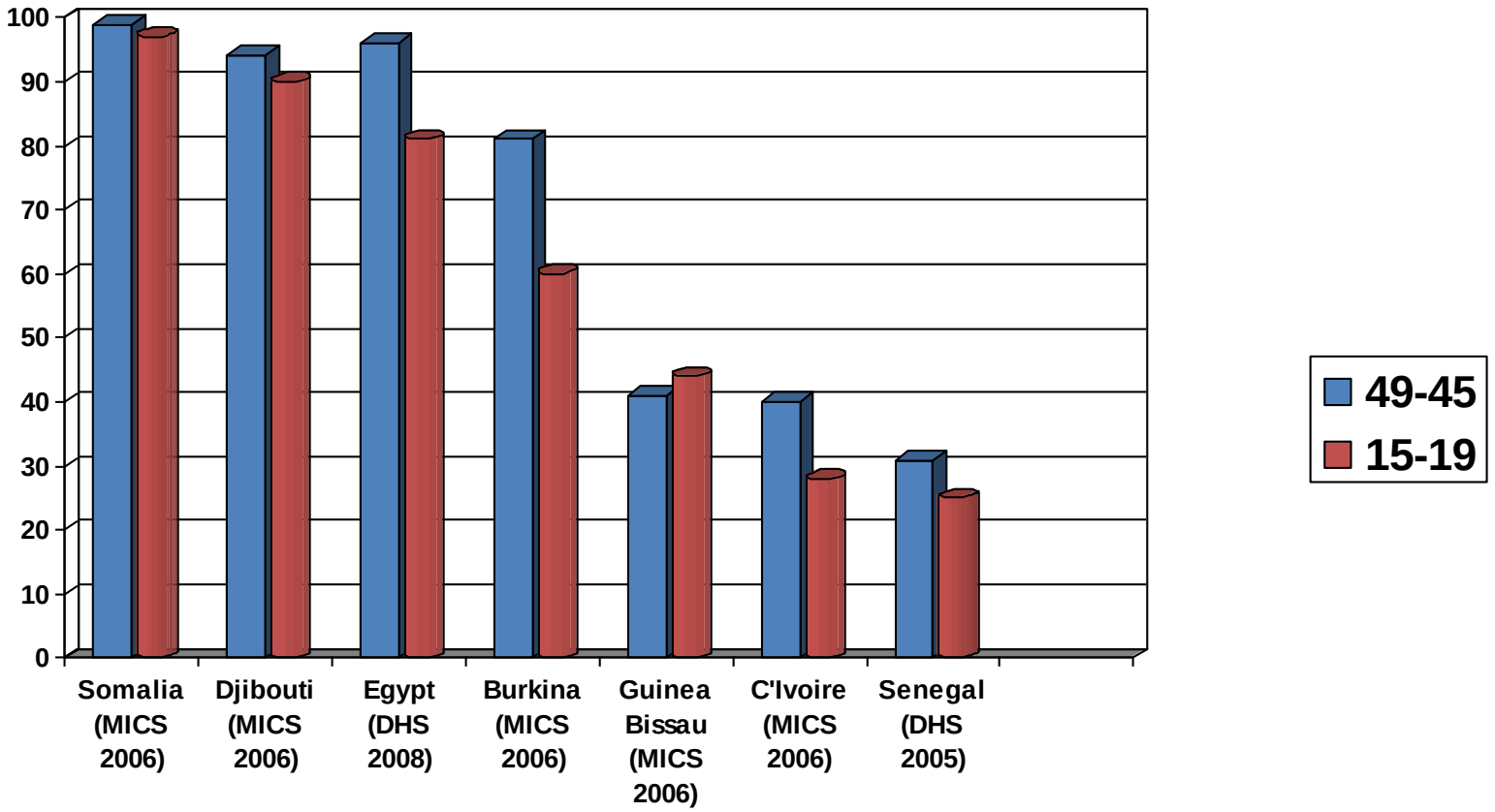
Immigrants from these areas



Where girls and women with FGM live



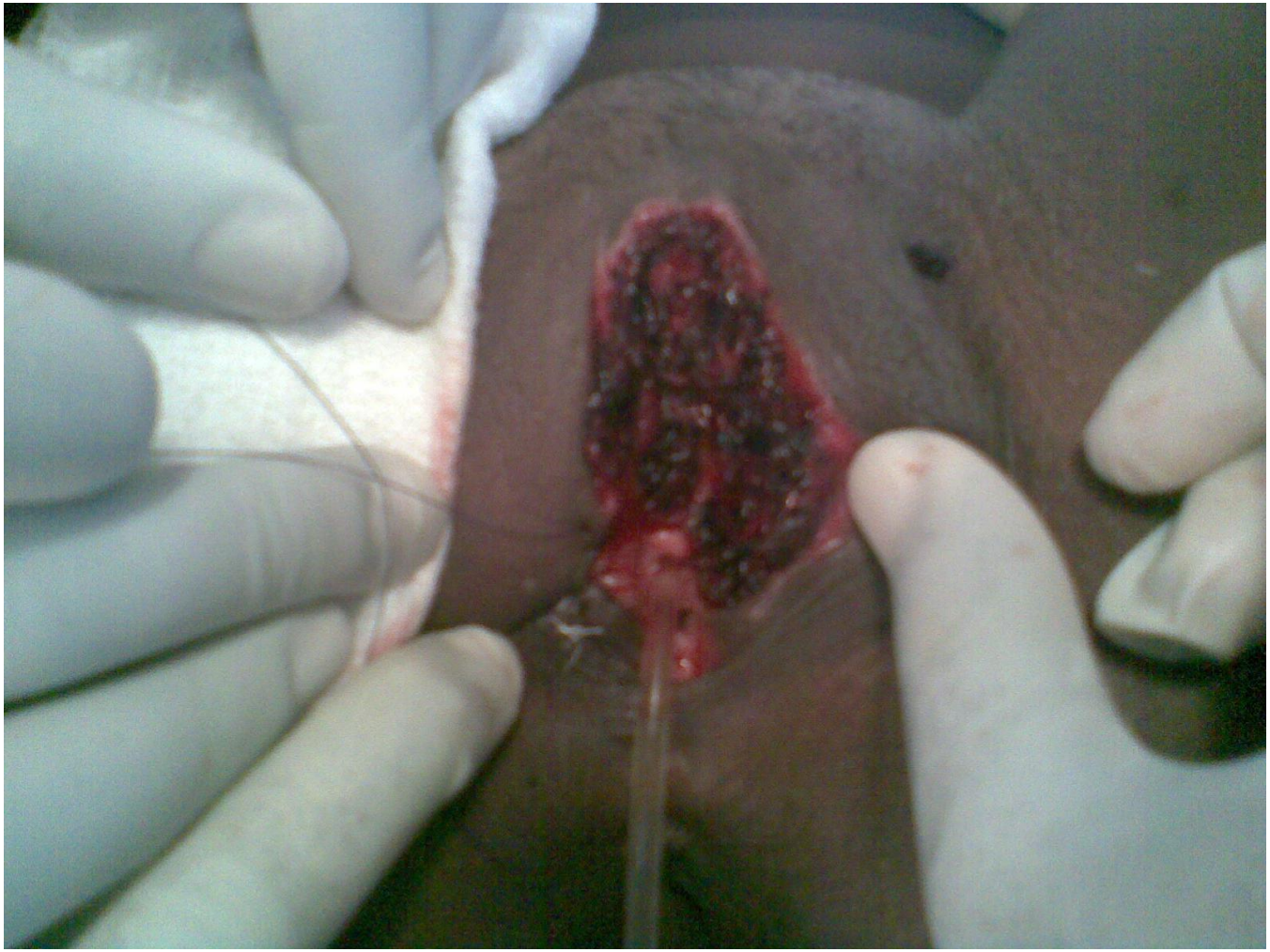
Prevalence of FGM in oldest and youngest age groups



IMMEDIATE PHYSICAL COMPLICATIONS

- Extreme pain
- Haemorrhage /Bleeding
- Urinary retention
- Acute infections
- Failure to heal as a result of wound sepsis.
- Injury to the adjacent tissue of urethra, vagina, perineum and rectum.
- Fracture or dislocation resulting from forceful holding down of girls and the girls struggle due to the resultant pain.
- DEATH

SEPTIC REINFIBULATED VULVA



“Egyptian girl dies during female circumcision ritual outside Cairo”


05/07/2007

Urinary problems, kidney Hydronephrosis

OTHER COMPLICATIONS

- This is a patient with inclusion cyst or abscess.
- Clitoral neuroma

HIV/AIDS???

1. Haemorrhaging subsequent to the operation, bleeding during sexual intercourse as a resulting of lasting damage to the genital area, or anal intercourse where infibulation prevents or impedes vaginal intercourse are **potential** sources of HIV transmission.

High risk HIV transmission due to the use of one instrument in multiple operations is one of the actual concerns.

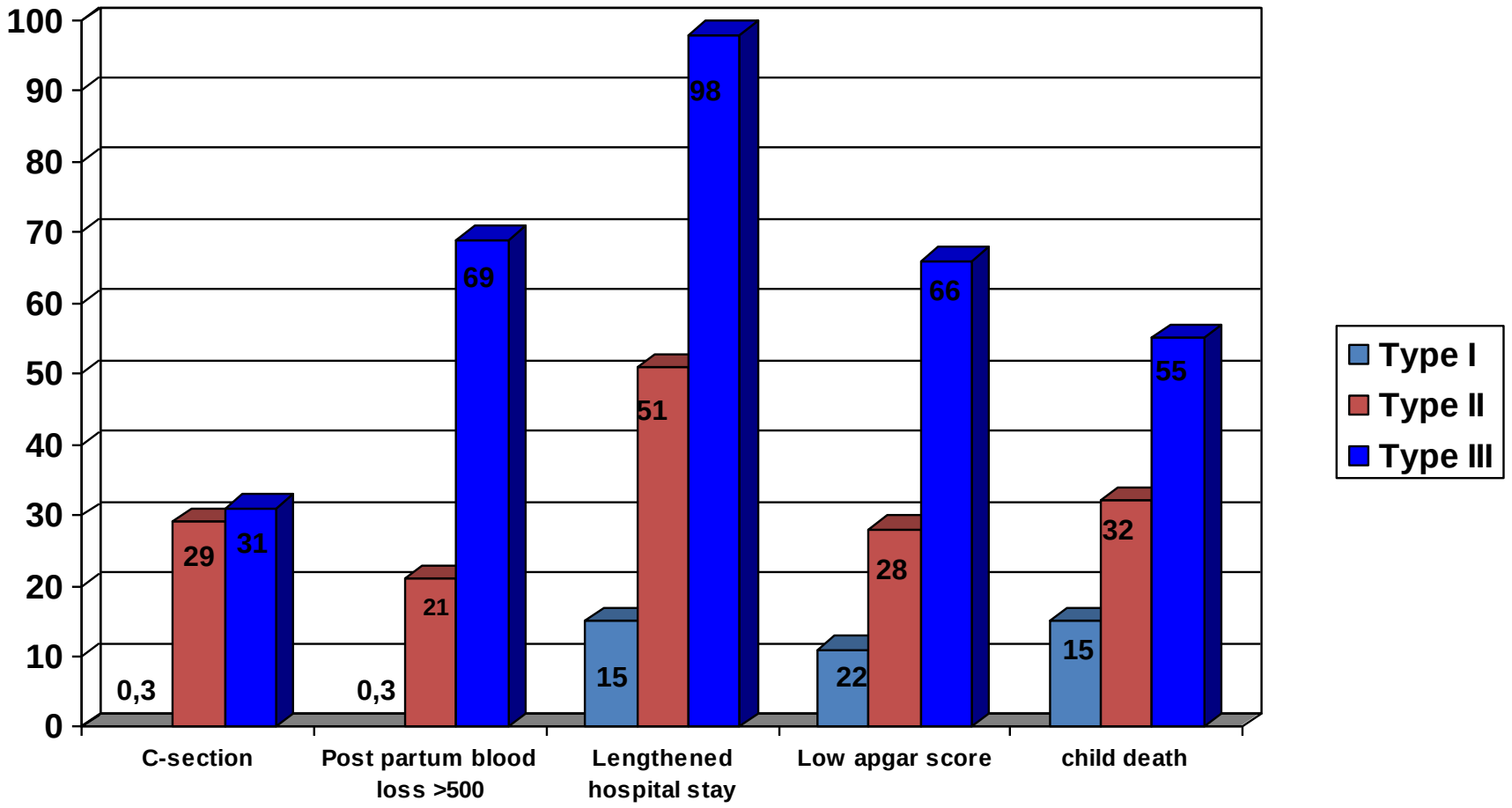
LONG TERM HEALTH COMPLICATIONS

Multiple keloids of the vulva following FGM

Long term consequences

-Repeated cutting, repeated risks
-Infections
-Cysts & Scarring, keloid
-Menarche, periods
-Sexuality
-Infertility

Increased risk of obstetric complications of women with, compared to women without FGM



FGM AND OBSTRUCTED LABOUR

PERINEAL INJURIES

- The RRs of a perineal tear for primiparous women were 1·31 (1·03–1·66) for those with FGM I, 1·92 (1·50–2·47) for those with FGM II, and 3·19 (1·91–4·74) for those with FGM III, compared with those without FGM.

- In multiparous women, the RRs were 1·37 (1·07–1·75) for women with FGM I, 2·17 (1·69–2·82) for those with FGM II, and 1·93 (1·07–3·38) for those with FGM III compared with women without FGM.

Additional Information

- Patterns of risks similar in nulliparous and parous women
- Significantly higher rates of episiotomy and perineal tears in women with FGM, though substantial heterogeneity between centres
- Estimated 10 – 20 additional perinatal deaths per 1000 live births in the countries where study conducted
- Complication rates likely higher in women with limited access to obstetric services

POPULATION COUNCIL

Ideas. Evidence. Impact.

The Medicalization of FGM/C in Sub-Saharan Africa (SSA), North Africa and the Middle East (MENA)

Nahla Abdel-Tawab, MD, DrPH

Online FGM/C Research Forum

June 17, 2021

Acknowledgments

- This presentation is based largely on the paper by El-Gibaly, O., M. Aziz, and S. Abou Hussein. 2019. “Health care providers’ and mothers’ perceptions about the medicalization of female genital mutilation or cutting in Egypt: A cross-sectional qualitative study,” BMC International Health and Human Rights, 19(1).

- Thanks go to Population Council colleagues
  - Hania El Banhawi
  - Gihan Hosny

What is medicalization of FGM/C?

- As defined by WHO, medicalization involves “situations in which FGM/C is practiced by any category of health professionals, whether in a public or a private clinic, at home or elsewhere, at any point in a female’s life.”

- This can also include less invasive, ‘milder,’ forms of FGM/C (e.g. ritual ‘nicks’ or pricks).

(World Health Organization, 2010)

How widespread is medicalization of FGM/C?

- An **estimated 26% of women** aged 15–49 (approx. 16 million women) report **having been cut by a health professional (HP)**, according to DHS data in 25 countries

- Medicalization rates (i.e. % of FGM/C performed by a medical professional) are highest in Sudan (67%), Egypt (38%), Guinea (15%), Kenya (15%) and Nigeria (13%)

- There is a trend towards increased medicalization in younger generations and among higher socio-economic groups

(Shell-Duncan, 2017; El-Gibaly, Aziz and Abou Hussein 2019, Ghattas, Abdel Tawab and Abou Hussein, 2016).

Why is medicalization harmful?

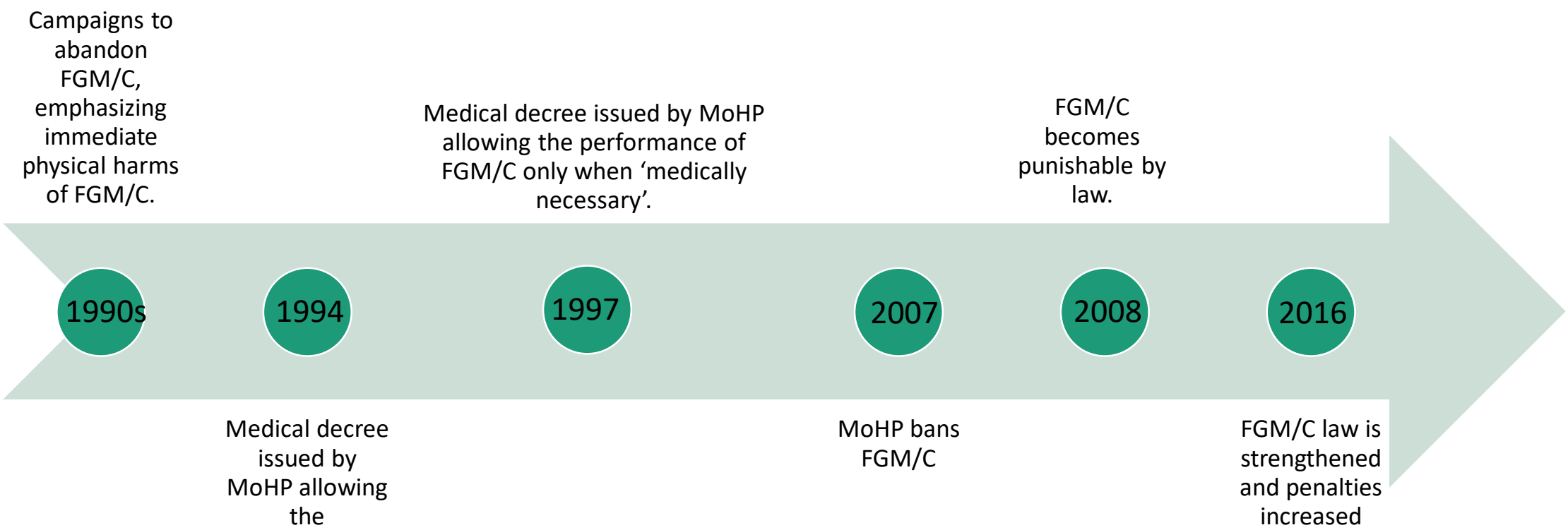
- Health professionals who perform FGM/C still have limited knowledge of its long-term health consequences, in particular its mental health implications.

- Medicalization threatens global efforts to eliminate FGM/C, since it institutionalizes and normalizes the practice, communicating the message that FGM/C is acceptable when performed by a HP.

Case study

Medicalization of FGM/C in Egypt

History of Medicalization in Egypt



Demographics of FGM/C medicalization in Egypt

- 55% of young women 13-35 who were exposed to FGM/C reported that they were cut by a physician or nurse
- 65% of 13 – 17 were cut by HP compared to 44% of those 30-35 years
- 43% of young women from lower wealth quintiles were cut by HPs, compared to 71% of women in the highest wealth quintile
- 62% of those in urban areas were cut by HPs were cut by HPs compared to 49% and 52% of those in rural areas or frontier governorates, respectively.

(Ghattas, Abdel Tawab and Abou Hussein, 2016)

Why parents go to doctors for FGM/C?

- **Harm reduction: to avoid the immediate consequences of FGM/C & its long-term complications**

> *"Circumcision by a doctor is not the same as a 'daya' .. It varies from one 'daya' to another .. for example I bled but with a doctor all cases are the same and there are no complications .. a doctor follows up on the wound but a 'daya' you don't see her again … "*
>
> – Mother from Assiut

(El-Gibaly, Aziz and Abou Hussein, al, 2019)

Why parents go to doctors for FGM/C?

- **Parents assume doctors have the knowledge and training to decide whether a girl 'needs' FGM/C**

> *"No, I honestly didn't take them [her daughters] to a doctor… because they're good and tame….if I saw her eyeing [men], talking to guys or something, I'd know she has tendencies towards [inappropriate behaviour] so I'd take her to be checked by a doctor….The medical experts can then do what they see fit."— Mother, Cairo*

(El-Gibaly, Aziz and Abou Hussein, 2019)

Why parents go to doctors for FGM/C?

- **Hesitant parents delegate doctors to make the FGM/C decision for them**

"The doctor has the final say .. My mother would tell me cut her (my daughter) because she had me and my sisters cut .. My husband would tell me go and consult with someone to find out what is right and what is wrong .. the doctor would know if she needs circumcision or not …" – Mother from Gharbeya

(El-Gibaly, Aziz and Abou Hussein, 2019)

Why doctors perform FGM/C?

- **Many doctors lack knowledge about FGM/C or sexual health**
- *"Nothing in medicine taught us how to [perform FGM/C], and I didn't study it during my years of education. Whether cutting from the right or from the left, it is personal"* --Male Doctor, Assiut
- *"We had obstetrics/gynecology in the fourth year of medical school and it was one lecture on sex and that year this lecture was removed for political reasons." Male physician, Assiut*

(Ghattas et. al, 2016, El-Gibaly et. al, 2019)

Why doctors perform FGM/C?

- **Financial gain: medicalization of FGM/C is a major source of income for HPs.**

- *"More than 50 percent of the doctors in the rural areas do these things for several reasons. First for financial gains and trust of people that he [the doctor] responded to their needs and they will come to him for other matters. And if he does not do it, he will be stigmatised."* Male physician, Cairo

Why doctors perform FGM/C?

- **Cultural norms: Some HPs share the same FGM/C beliefs as the communities they serve.**

"Let me tell you something .. Sometimes you know something is wrong but you still do it because you are afraid .. Do you understand" - Female doctor, Cairo

"If it is not a religious requirement, why did it exist in the first place? Why is it practiced in some Muslim countries? Why did your mother and your grandmother do it?" – Female doctor, Gharbeya

(El-Gibaly, Aziz and Abou Hussein, 2019)

Why doctors / nurses perform FGM/C?

- **FGM/C reframed as cosmetic surgery**

“I don’t call it circumcision, I call it ‘refinement.’ For me, as a doctor, I don’t do this case as female circumcision, I do it as a technical case. For example, after the age of 16 to 17, when everything is clear and there are problems from it, so I do this refinement or cosmetic operation.”— Male physician, Gharbeya

(El-Gibaly, Aziz and Abou Hussein, 2019)

The way forward (1/2)

- Educating and training of HPs, through the integration of FGM/C and sexual health into medical and nursing school curricula, as well as informing HPs of its illegality.
- Policies must emphasize the human rights approach to safeguard girls and women's bodily integrity (as opposed to the harm reduction approach).
- Encourage better enforcement of laws against all forms of FGM/C including cosmetic surgeries.
- Enhance reporting mechanisms for claims against doctors practicing FGM/C.

(Leye et al., 2019, El-Gibaly et. al, 2019, WHO, 2010, Ghattas et. al, 2016)

The way forward (2/2)

- Abandonment activities should target all family members including young girls and fathers as they are becoming increasingly involved in the process of FGM/C.
- Sexual education should be included in high school curricula and integrated in campaigns for FGM/C abandonment to correct associated misconceptions among young men and women.
- Further research is needed to understand the complex drivers medicalization of FGM/C in various settings and the appropriate strategies to accelerate the elimination of all forms of FGM/C.

(Leye et al., 2019, El-Gibaly et. al, 2019, WHO, 2010, Ghattas et. al, 2016)

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IDEAS. EVIDENCE. IMPACT

The Population Council conducts research and delivers solutions that improve lives around the world. Big ideas supported by evidence: It's our model for global change.

IDENTIFYING AND PRIORITISING FGM/C RESEARCH FOR CHANGE

SSA & MENA Researcher Dialogue on FGM/C

Professor Angela Dawson

A FOCUS ON GENERATING EVIDENCE FOR PREVENTION

Sustainable Development Goal Target **5.3**
Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation

Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) General Recommendation No. 14 on FGM

UN Convention on the Rights of the Child Article 19

No basis for arguments in support of harm reduction strategies such as the medicalisation of FGM/C

NEED FOR RESEARCH TO PREVENT FGM/C

Demand

Understanding values / motivations, behaviours, women and community voices

Supply

Motivations of providers, type of practice, medical ethics, professional regulation, education, legislation

WHAT MIGHT GOOD FGM/C RESEARCH IN THIS AREA LOOK LIKE?

Descriptive Research

OR

Applied research

Intervention research- what types of interventions?

- Cross sector multi-disciplinary interventions
- Multi level interventions
- Different levels of prevention
- bundles of interventions

Single site vs. Multi site studies?

Complex vs simple?

FGM/C research in the time of COVID-19

Feedback from Delphi Survey

STUDY AIM

- Identify research to improve the evidence to prevent female genital mutilation/cutting (FGM/C) and build the capacity of African and Middle Eastern researchers

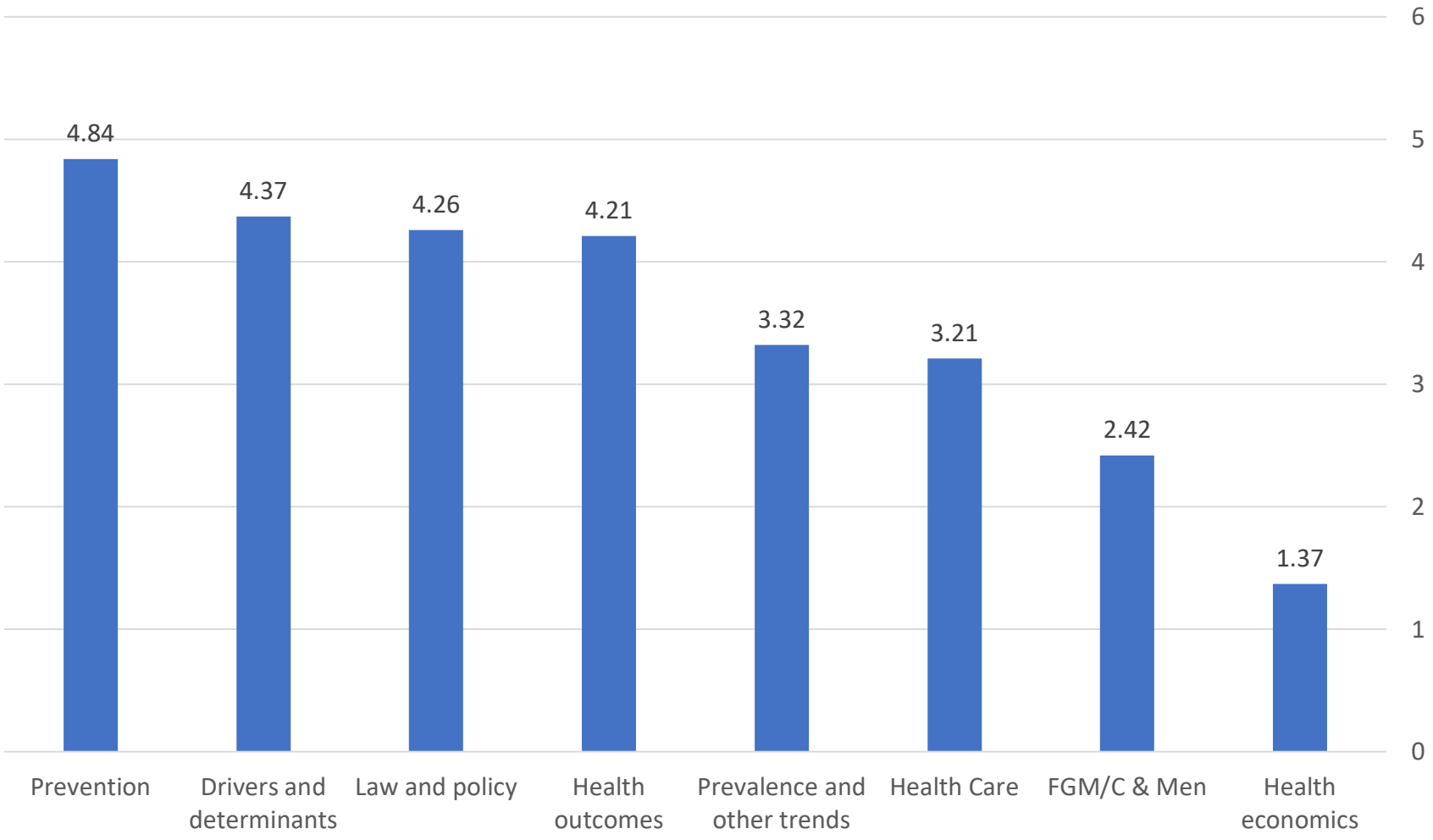
METHODS

- The Delphi Method
- The participants

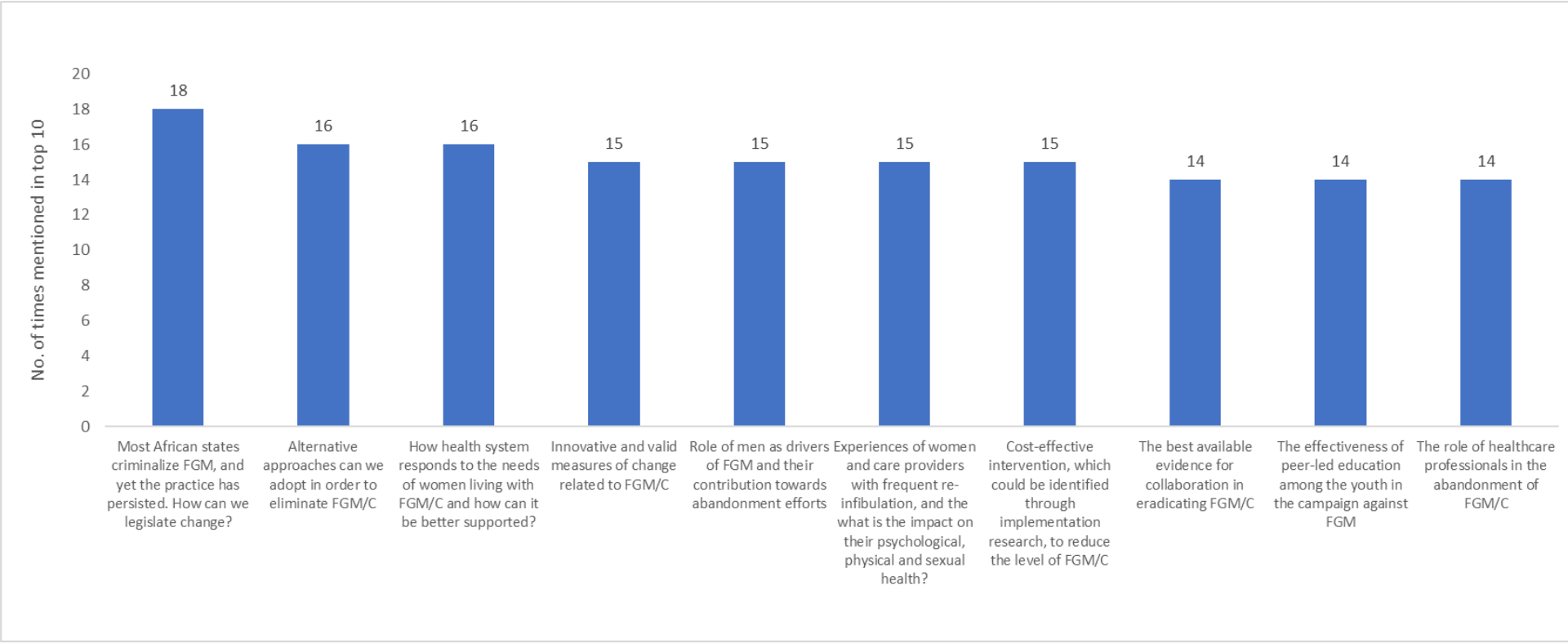
Round 1 : 40 responses

Round 2: 33 responses

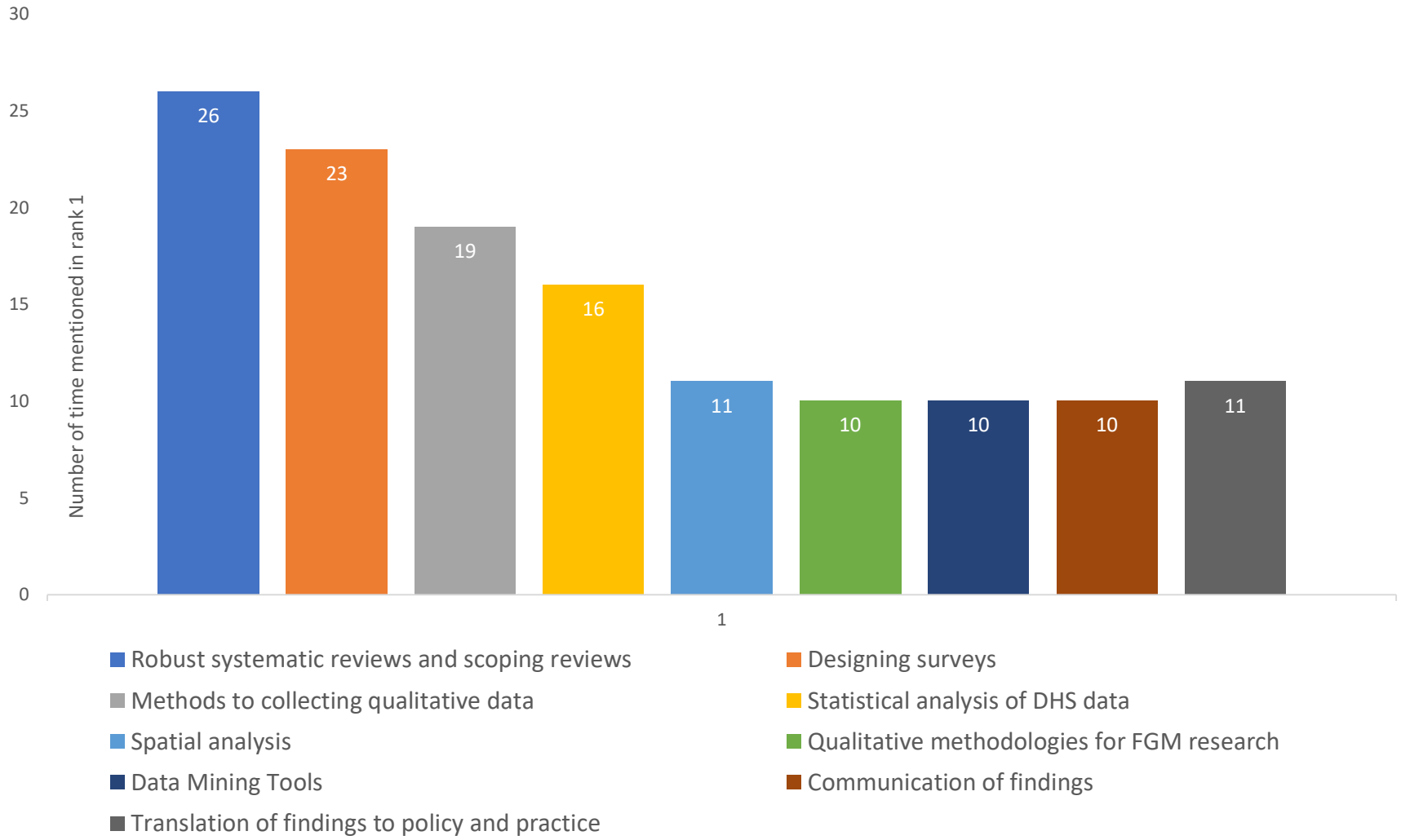
Priority ranking index (1-7) for areas of FGM/C research that you think are most important



Priority ranking for top ten research questions in FGM by importance



Priority ranking (1-9) for research skills early career researchers would like to develop to research FGM/C



Thank you!

We acknowledge the contribution of all participants

Discussion and next steps