City Research Online

City St George's, University of London

Citation: Macfarlane, A. J. & Dorkenoo, E. (2015). Prevalence of Female Genital Mutilation in England and Wales: National and local estimates. London: City University London in association with Equality Now.

This is the published version of the paper.

This version of the publication may differ from the final published version. To cite this item please consult the publisher's version.

Permanent repository link: https://openaccess.city.ac.uk/id/eprint/12382/

Copyright and Reuse: Copyright and Moral Rights remain with the author(s) and/or copyright holders. Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge, unless otherwise indicated, provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way. For full details of reuse please refer to City Research Online policy.

City Research Online: http://openaccess.city.ac.uk/ publications@citystgeorges.ac.uk

CITY UNIVERSITY LONDON

Prevalence of Female Genital Mutilation in England and Wales: National and local estimates

Alison Macfarlane BA Dip Stat C Stat FFPH
Professor of Perinatal Health, City University London

Efua Dorkenoo BSc MSc RGN RSCN OBE
Former Senior FGM Advisor, Equality Now
Former Honorary Visiting Senior Fellow, City University London
Former Programme Director, The Girl Generation

Published by
City University London, Northampton Square, London EC1V 0HB
and
Equality Now, 1 Birdcage Walk, London SWIH 9JJ

July 2015
Minor correction January 2016

ISBN 978-1-900804-93-6

This project was funded by Trust for London and the Home Office. The views expressed are those of the authors.

This work contains statistical data from ONS which is Crown Copyright. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates.

© Alison Macfarlane and Efua Dorkenoo for the text.

Contents

	Page
Efua Dorkenoo	2
Executive summary	3
1 Background	6
2 FGM in the United Kingdom	10
3 Objectives	13
4 Study design	14
5 Results	17
6 Discussion	26
7 Conclusions	27
Acknowledgements	27
References	28

Tables in separate Excel workbook

Data from FGM practising countries

1. National FGM/C prevalence data by age cohort by country in the DHS and MICS surveys used in the estimates
2. National FGM/C prevalence data by age cohort from DHS and MICS surveys by country
3. Within country differences in the prevalence of FGM in women and girls aged 15-49
4. Prevalence of FGM by religion and country
5. Prevalence of FGM by educational level and country
6. Prevalence of FGM by wealth quintile and country

Data for residents of England and Wales

7. Comparison of numbers of women aged 15-49 born in FGM practising countries, England and Wales, 2001 and 2011
8. Women aged 15-49, permanently resident in England and Wales, 2011
9. Women aged 50+, permanently resident in England and Wales, 2011
10. Girls aged 0-14, permanently resident in England and Wales, 2011
11. Numbers of women permanently resident in England and Wales and born in FGM-practising countries and estimated numbers with FGM by age group and region and local authority area,
12. Estimated numbers of maternities to women with FGM, England and Wales, 2001-2013
13. Estimated numbers and percentage of maternities to women with FGM by local authority of residence, England and Wales, 2011
14. Estimated percentages of maternities to women with FGM, by region and local authority, 2005-2013
15. Numbers of maternities by mother's country of birth group by region, England and Wales 2005-13
16. Estimated numbers of girls born in England and Wales to mothers born in FGM practising countries
17. Estimated numbers and percentage of girls born to women with FGM by local authority of residence, England and Wales, 2005-2008, 2009-2013, 2005-2013

Efua Dorkenoo, OBE, 1949-2014

The impetus for this report came from Efua Dorkenoo, OBE, who was a leading figure in the campaign against FGM and responsible for making the case for new estimates and for obtaining the funding for this work, at a time when few funds were available for work on FGM. She was involved in the interim report, published in 2014, but died on October 18 2014, before the project was completed.

Efua started to campaign against FGM in the early 1980s, first within the UK where she influenced legislation and then internationally, acting as a consultant to WHO and international NGOs. In the last year of her life, she was Senior FGM Advisor at Equality Now and was also appointed Programme Director of what became The Girl Generation, an international programme to end FGM. She had previously been appointed an Honorary Visiting Senior Fellow at City University London. She is greatly missed by all who worked with her.

Executive summary

Background

This report contains estimates of the numbers of women with female genital mutilation (FGM) living in England and Wales, the numbers of women with FGM giving birth and the numbers of girls born to women with FGM. Headline figures for England and Wales as a whole were published in an interim report. This full report contains estimates at a local authority level. To enable interpretation of these data, it also contains data about the extent to which FGM is practised in the women's countries of origin and about the populations of women born in these countries and living in England and Wales in 2011.

Sources of data

To derive these estimates, data about the prevalence of FGM were derived from reports of household interview surveys in the countries in which it is practised. Demographic data about women born in these countries and girls born to them were derived from the 2011 census and from birth registration. In the census analysis, women who had been born in countries where FGM is practised, but were members of South Asian and other populations which do not practise FGM were, as far as possible, excluded from the analyses. For analyses of birth data, it was not possible to do this directly, so multiplying factors derived from the census analyses were used to estimate the relevant numbers.

Migration to England and Wales from countries where FGM is practised

The overall numbers of women aged 15-49 who were permanently resident in England and Wales but born in FGM practising countries increased from 182,000 in 2001 to 283,000 in 2011. Numbers of women born in the countries in the Horn of Africa, where FGM is almost universal and where the most severe Type III form, infibulation, is commonly practised, increased by 34,000 from 22,000 in 2001 to 56,000 in 2011. The numbers of women from countries in East and West Africa, where FGM Types I and II, clitoridectomy with or without excision of the labia minora, are very common, also increased by 10,000 over the same period.

Estimated numbers of women and girls with FGM

An estimated 103,000 women aged 15-49 with FGM born in countries in which it is practised were living in England and Wales in 2011, compared with the estimated 66,000 in 2001. This represented an estimated prevalence rate of 7.7 per 1,000 women in the population. In addition there were an estimated 24,000 women aged 50 and over with FGM born in FGM practising countries and nearly 10,000 girls aged 0-14 born in FGM practising countries who have undergone or are likely to undergo FGM. These groups had lower prevalence rates of 2.3 and 2.0 per 1,000 population respectively.

Combining the figures for the three age groups, an estimated 137,000 women and girls with FGM, born in countries where FGM is practised, were permanently resident in England and Wales in 2011. This represented a prevalence rate of 4.8 per 1,000 population. Estimated prevalence rates for all regions and local authority areas in England and Wales showed wide variations.

Prevalence rates varied considerably by region, with London having by far the highest prevalence at 21.0 per 1,000 population. Rates for individual local authorities varied even more widely. The highest rates were in London boroughs, with 47.4 per 1,000 in Southwark and 38.9 per 1,000 in Brent. Outside London, Manchester, Slough, Bristol, Leicester and Birmingham had high prevalence rates, ranging from 12 to 16 per 1,000. Other authorities, including Milton Keynes, Cardiff, Coventry, Sheffield, Reading, Thurrock, Northampton and Oxford had rates of over 7 per 1,000. In contrast, many mainly rural areas had prevalences well below one per 1,000, but above zero.

This shows that, for the most part, people born in countries where FGM is practised tended to be concentrated in urban areas, but there are likely to be affected women and girls living in every local authority area.

Over half of the women aged 15-49 with FGM, 53,000, were born in countries with almost universal Type III FGM, and a further 20,500 were born in countries with very high rates of Type I and II FGM. Women aged 50 and over with FGM are likely to continue to experience gynaecological and psychosomatic problems. Three fifths of these women were born in countries where FGM is almost universal.

Estimated numbers of women with FGM giving birth

It was estimated that, since 2008, women with FGM have made up about 1.5 per cent of all women delivering in England and Wales each year. About three fifths of them were born in the group of countries in the Horn of Africa where FGM is almost universal and Type III is commonly practised.

Estimated percentages for each region and local authority area vary widely ranging from over five per cent in some London boroughs and major cities to under 0.1 per cent in many areas.

Girls born in England and Wales to mothers with FGM

From 1996 to 2010, 144,000 girls were born in England and Wales to mothers from FGM practising countries. It was estimated that 60,000 of these girls aged 0-14 in 2011 were born to mothers with FGM. In both cases, well over half of the mothers came from the countries in the Horn of Africa where FGM is almost universal and Type III is practised. Slightly under a fifth came from the countries in West and East Africa where Types I and II are highly prevalent.

The percentages of girls who were born to mothers who had FGM ranged widely from 10.4 per cent in Southwark to under 0.1 per cent in many local authority areas.

It is not possible to quantify the prevalence of FGM among girls born in England and Wales to mothers from FGM practising countries or assess the numbers of girls at risk on a population level. These are judgments which can only be made through contacts between individual women and relevant professionals and other practitioners**.**

Comments

These figures may be slight underestimates as they do not take account of migration since 2011. In addition, as there is some under-enumeration of Black African women

in general in the Census compared with the population of England and Wales as a whole, there may be some under-enumeration of the sub-group of Black African women who migrated from countries where FGM is practised.

On the other hand, these may be over-estimates. In many, although not all FGM practising countries, the prevalence of FGM is lower among women with secondary or higher education than among women with less or no education. Although some women born in FGM-practising countries living in England and Wales may have little education or knowledge of English, many are highly educated and reported English as their first language on their census forms.

When planning services to meet the needs of women with FGM and assessing whether there is a need for child protection for their daughters, it is important to recognise the diversity of this group of migrant women and to assess their needs at an individual level.

1 Background

The term female genital mutilation (FGM), also known as female genital cutting (FGC), refers to all procedures involving partial or total removal of the external female genitalia or other injury to the female genital organs for non-medical reasons.[1] This report contains estimates of the numbers of women with FGM living in England and Wales, the numbers of women with FGM giving birth and the numbers of girls born to women with FGM. These estimates all relate to women born in countries where FGM is practised.

To set the scene, the reports starts with data about the extent of practice of FGM in women's countries of origin and the characteristics of the populations of women born in these countries who migrated to England and Wales.

Definitions
The World Health Organisation (WHO) has classified FGM into the types shown in Box 1.

Box 1 WHO Classification of FGM by Type[1]

Type	Description
I	Partial or total removal of the clitoris and/or the prepuce (clitoridectomy). **Type Ia**, removal of the clitoral hood or prepuce only **Type Ib**, removal of the clitoris with the prepuce.
II	Partial or total removal of the clitoris and the labia minora, with or without excision of the labia majora (excision). **Type IIa**, removal of the labia minora only; **Type IIb**, partial or total removal of the clitoris and the labia minora; **Type IIc**, partial or total removal of the clitoris, the labia minora and the labia majora.
III	Narrowing of the vaginal orifice with creation of a covering seal by cutting and appositioning the labia minora and/or the labia majora, with or without excision of the clitoris (infibulation). **Type IIIa**: removal and apposition of the labia minora; **Type IIIb:** removal and apposition of the labia majora.
IV	Unclassified: All other harmful procedures to the female genitalia for non-medical purposes, for example, pricking, piercing, incising, scraping and cauterisation.

1.1 Prevalence of FGM

UNICEF has estimated that more than 125 million girls and women globally have undergone FGM and that 3 million girls in Africa are at risk each year.[2] National data about FGM are collected in 29 countries in Africa and the Middle East through

internationally coordinated household surveys undertaken by individual countries, Most of these surveys are part of the Demographic and Health Surveys (DHS) funded by USAID[3] and the Multiple Indicator Cluster Surveys (MICS) supported by UNICEF.[4] FGM has also been documented in reports and surveys of specific populations in other parts of the Middle East and Asia, including Indonesia, Malaysia, India, Pakistan, Oman, Saudi Arabia and the United Arab Emirates.[5]

Prevalence rates, defined as the proportions of women with FGM in each category vary significantly between countries, as Table 1 and Figure 1 show. In Somalia, Guinea, Djibouti and Egypt, more than 90 per cent of the female population aged 15-49 is affected, compared with fewer than two per cent in Cameroon and Uganda.

Figure 1

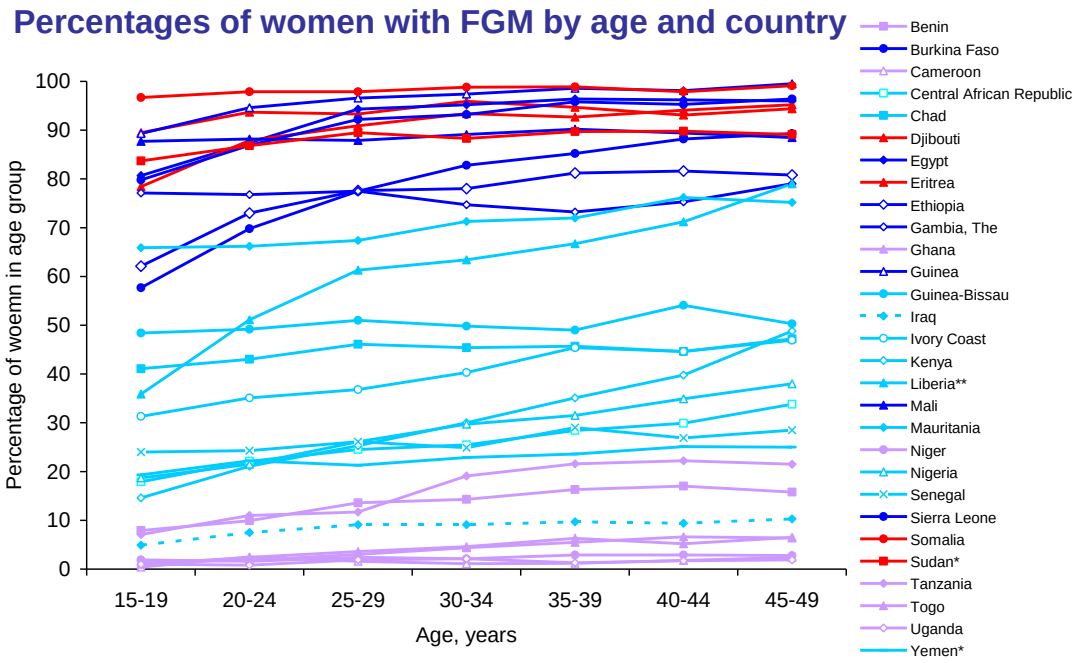


Figure 1 also shows that in some countries, such as Liberia, The Gambia, Kenya and the Central African Republic, women in younger age groups are less likely to have been affected, suggesting a decline in the practice, while in others there is little difference between age groups. This can be seen in greater detail in countries where there has been a series of surveys, as shown in Table 2.

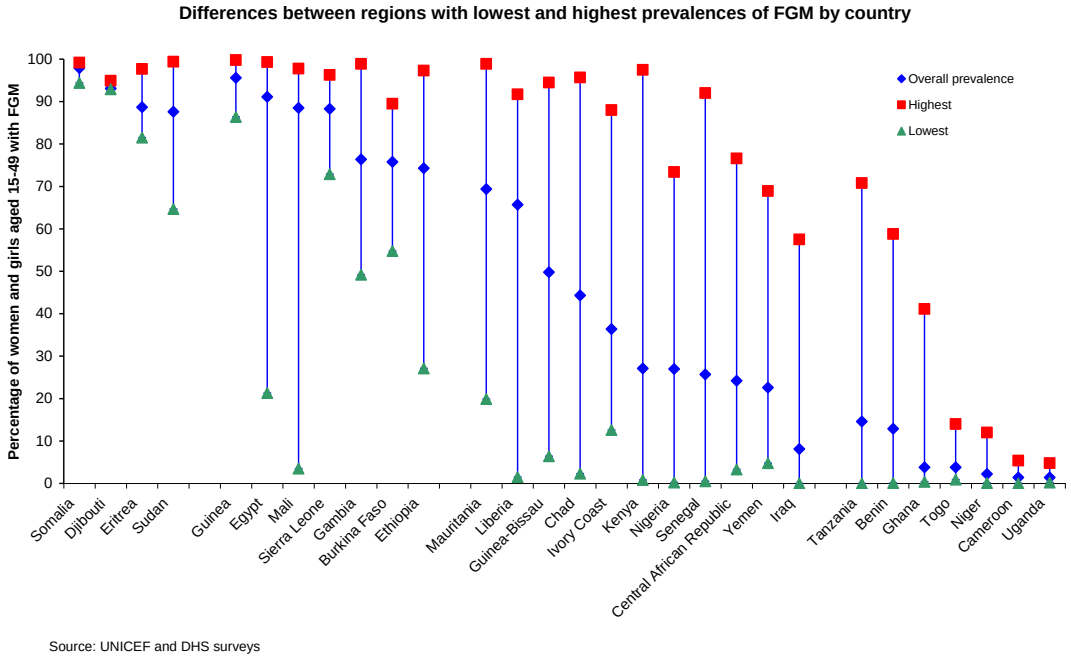
Box 2 FGM practising country groups

1.1	Almost universal FGM, over 30% FGM, WHO Type III	Sudan (north), Somalia, Eritrea, Djibouti
1.2	High national prevalence of FGM, WHO Types I and II	Egypt, Ethiopia, Mali, Burkina Faso, Gambia, Guinea, Sierra Leone
2	Moderate national prevalence of FGM, WHO Types I and II	Central African Republic, Chad, Cote d'Ivoire, Guinea Bissau, Iraq (Kurdistan), Kenya, Liberia, Mauritania, Nigeria, Senegal, Yemen
3	Low national prevalence of FGM, WHO Types I and II	Benin, Cameroon, Ghana, Niger, (Democratic Republic of Congo), United Republic of Tanzania, Togo, Uganda

There are also differences in the types of FGM practised, although there may be inaccuracies in the way women report the form of FGM they have undergone.[6] In this report, countries have been grouped into the categories shown in Box 2. Iraq has been categorised according to the rate practised in Iraqi Kurdistan, even though the overall national rate is much lower, as FGM is not practised in other parts of the country.

The extent of FGM can also vary widely between regions of the same country. As well as the overall rate, Figure 2 and Table 3 show the differences between regions with the highest and lowest rate in each country. UNICEF has published maps showing prevalence of FGM by region.[2] In all countries, apart from Nigeria, lower proportions of women who live in urban areas have FGM, compared to those who live in rural areas, as Table 3 shows.

Figure 2



Source: UNICEF and DHS surveys

FGM is mostly carried out on girls between the ages of 0 and 15 years. In half of the countries girls were cut before the age of five. Occasionally, adult and married women are also subjected to the procedure, for example re-infibulation following childbirth, or where a woman is forced to undergo the procedure by her husband and his family after marriage. It is commonly performed by traditional practitioners with no formal medical training and without anaesthetics. Crude instruments such as knives, scissors, razor blades and in some instances shards of glass are used. Often the girl is pinned down by a number of adults. In other instances, girls are expected to bear the pain stoically by not moving or crying during the procedure.

In some instances FGM is carried out by health professionals and this medicalisation is increasing in some countries. Some of the DHS and MICS surveys ask about the practitioner undertaking FGM.[2-4] In particular, in Egypt in 2014, 31.2 per cent of women aged 15-49 with FGM reported that FGM had been done by a doctor and 6.9 per cent by another health worker.[7] Among respondents whose daughters aged under 15 had undergone FGM, this had been done by a doctor in 74.0 per cent of

cases and by another health practitioner in 7.9 per cent of cases. In Nigeria, Kenya and Cameroon, some women report having had FGM done by health practitioners but this was much less common.[2-4]

In some countries, FGM is practised by specific ethnic groups and the rationale for the practice differs from one group to the other. Table 3 shows the differences between groups with the highest and lowest rates in some countries.

In some societies, the practice is embedded in coming-of-age rituals which are considered necessary for girls to become adult and responsible members of the society. In particular, in Liberia, where FGM is part of the induction into a secret 'Sande' or bush society, surveys ask women about membership of 'Sande societies', rather than asking directly about FGM.

FGM is believed to be a religious requirement by some Muslim populations who practise FGM and in some countries surveys ask women about this. FGM is not mentioned in the Quran and most Muslims in the world do not know about FGM. Moreover, in communities where FGM is a social norm, it is practised by Muslims, Christians and followers of indigenous religions which suggest that the practice is more cultural than religious. This can be seen in Table 4, where the percentage of women with FGM is cross-tabulated by religion.

In most countries, the percentage of women with FGM varies according to educational level, with lower rates among more educated women and according to household wealth, with women from better off households being less likely to have FGM as shown in Tables 5 and 6. These also show that the country which differs from this is Nigeria, where better educated and better off women are more likely to have FGM.

A recurring theme for the justification of FGM in practising communities is to attenuate the sexual desire of females in order to conform to prescribed social norms relating to girls' and women's moral conduct. FGM is often linked to marriageability of girls and family 'honour'. A common held belief in FGM practising communities is that girls and women who have not undergone FGM have an insatiable sexual appetite which has to be restrained to prevent bringing dishonour and shame to families.

Infibulation is the extreme practice undertaken by some groups to enforce virginity before marriage. In the Sudan, where infibulation is near universal, the tight opening left following infibulation is believed to increase the sexual enjoyment of men. This is often an underlying motive behind repeat infibulation following each delivery. In a number of communities, young women who do not undergo FGM may face stigma, discrimination and threats from family and community members.

The practice has no benefits to health and poses serious health risks to girls and women who undergo it, both at the time when the mutilation occurs and in later life. The immediate health complications include severe pain, injury to adjacent organs, urine retention, shock, haemorrhage, infections sometimes leading to death. The long term health complications can include chronic pain, infections, keloids formation and primary infertility. FGM increases the risks of obstetric complications such as prolonged labour, lacerations and obstetric haemorrhage.[8] Women with FGM are

more likely than women without FGM to experience pain during intercourse and have reduced sexual satisfaction as well as reduced sexual desire.[9] The psychological trauma that girls go through during mutilation can stay with them for the rest of their lives and among younger women this may lead to post traumatic stress, feelings of incompleteness, confusion, betrayal and depression.[10,11]

FGM violates a number of human rights principles, including the principles of equality and non-discrimination on the basis of sex. It is considered as a form of violence against girls and women and a form of child abuse.[12] It carries a strong message about the subordinate role of women and girls in society.[13] Moreover, it perpetuates the perception that women may play only the roles of mother and spouse, reinforcing women's subordination in political, economic, social and cultural realms.[14]

2 FGM in the United Kingdom

FGM is also found amongst migrant communities worldwide. In Europe, It has been suggested that 500,000 women living in the EU have undergone FGM and 180,000 girls are at risk of undergoing FGM every year although it is unclear how this estimate was derived.[14]

Women who have experienced FGM are increasingly found in the United Kingdom. There is growing knowledge based on community-based prevention work about the reasons why some practising groups continue with FGM even when they have migrated to the UK.[15] Some members from affected communities continue to support FGM, linking it to their cultural heritage and/or control of female sexuality.[16,17]

The younger generation is most likely to be against FGM but women may give in to pressures from their extended families. There is a call by some women in affected communities for greater intervention by the state.[16] Amongst groups who practise FGM Type III, increasing support for Type 1 and Type 2 FGM is reported, linked to the mistaken belief that these types of FGM bear religious credit.[15] Better knowledge about differences in attitudes and rationale in migrant communities is crucial for sharpening our approaches to prevention as well as monitoring trends in attitudes. Under the Female Genital Mutilation Act 2003, it is a criminal offence for a United Kingdom national or a permanent United Kingdom resident to excise, infibulate or otherwise mutilate the whole or any part of a girl's labia minora or clitoris, whether in the United Kingdom or overseas but there has been no successful prosecution on the issue. The Serious Crime Act amends the 2003 Act to insert new provisions to: extend extra-territorial jurisdiction for FGM, provide anonymity for victims of FGM, create a new offence of failure to protect a girl from FGM, introduce FGM Protection Orders, introduce a mandatory reporting duty requiring regulated health and social care professionals to report known cases of FGM in under 18s to the police and confers on the Secretary of State a power to issue statutory guidance on FGM.

The Government document, Multi-Agency Practice Guidelines: Female Genital Mutilation,[12] suggests that many British girls living in minority ethnic communities in the United Kingdom are taken abroad to their family's country of origin during the school summer holidays to be subjected to FGM, but there are no data on their numbers.

2.1 Previous estimates of the prevalence of FGM in England and Wales

Previous research, published in 2007, estimated the prevalence of FGM in the population of women of childbearing age in England and Wales, the numbers of girls aged under 15 with or at risk of FGM and the prevalence of FGM among women giving birth in England and Wales from 2001 to 2004.[18] Estimates were not derived for Scotland or Northern Ireland, where well under 10 per cent of births in 2004 were to women born outside the UK.

Data from the 2001 census were used to estimate numbers of women aged 15-49 and numbers of girls aged under 15 who were born in FGM practising countries and resident in England and Wales in 2001.[18] Data from birth registration were used to derive numbers of women from FGM practising countries giving birth in England and Wales each year from 2001 to 2004. Data from the same source were used to derive numbers of girls aged under15 born in England and Wales from 1993 to 2004 to women from FGM practising countries.

To estimate the proportions with FGM, proxy age specific prevalence rates, derived from surveys in countries of origin, were used. Most of these came from the USAID DHS[3] or the UNICEF MICS surveys.[4] In the small numbers of countries where data from these were not available, estimates were derived from one-off research studies. As in some countries, notably those in which FGM was most extensively practised, prevalence rates were lower among younger women, data were analysed by age group and then combined.

Migration statistics were used to attempt to estimate numbers of women migrating from FGM practising countries to England and Wales each year from 2001 to 2004. The data provided by ONS were very broad estimates of numbers of migrants from FGM practising countries.

Although a useful step forward, these estimates had known limitations. They could not include women who were born in countries other than their parents' countries of origin, or take account of the extent to which migrant women living in inner city areas may have been under-enumerated in the 2001 census. In addition, only countries of birth are recorded in censuses in England and Wales, but as Figure 2 and Table 3 show, within some countries there are regional and social variations in FGM practices. Women who migrate may not be typical of the country as a whole. As many families' attitudes to FGM may change with migration, this makes it impossible to estimate the prevalence of FGM among girls born in the UK.

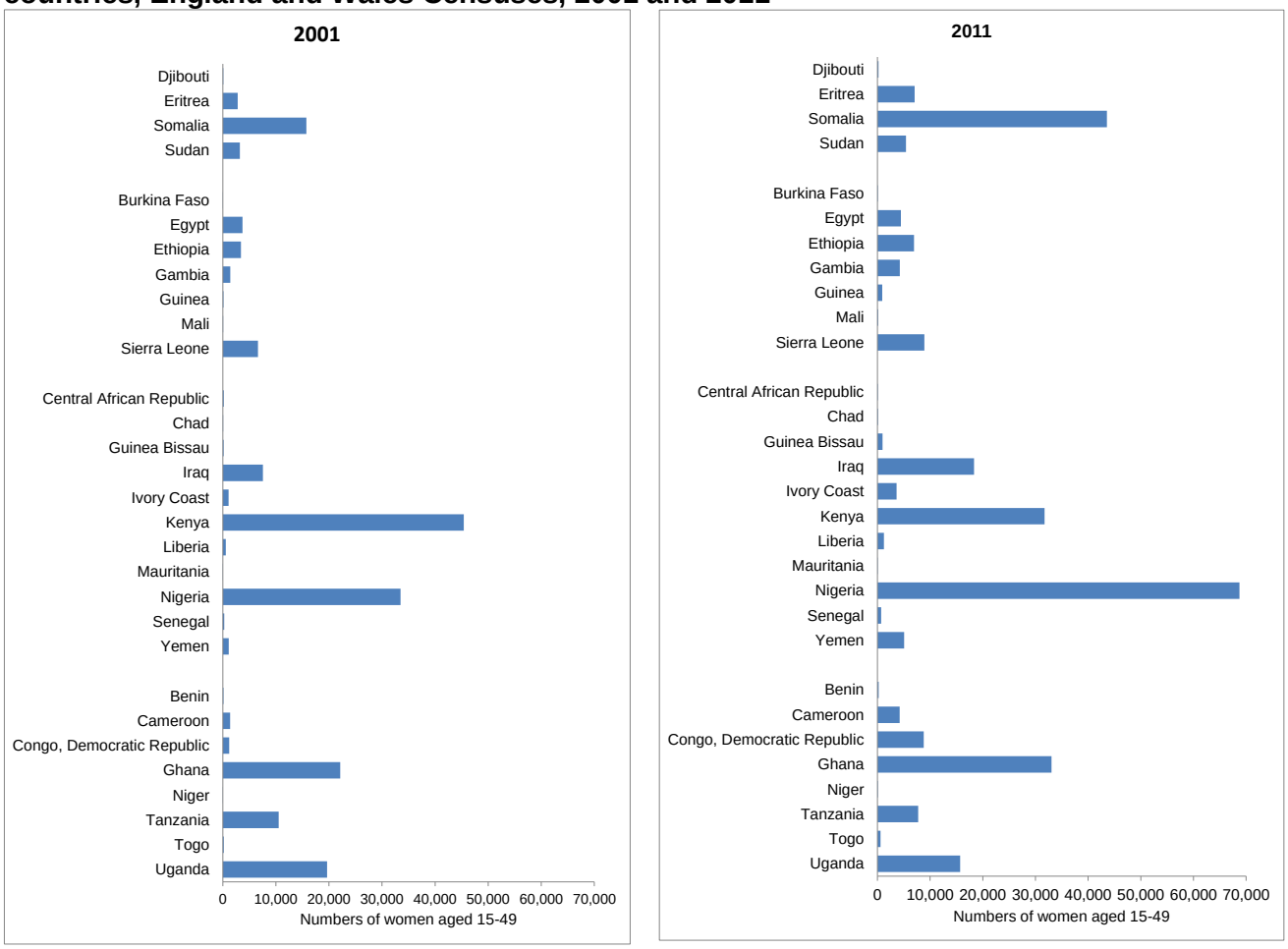
In principle, data collected about all women living in the UK should give a more accurate picture, but doing so is a more challenging task. In 2014, the Department of Health initiated data collection about women with FGM using health services in England and in 2015 it expanded the scope and range of data collected.[19] The system it initiated is a freestanding hospital-based audit system designed to track individual women with FGM and their daughters. An enhanced dataset was introduced in April 2015 and the system was extended to mental health services and GP practices. As data are not collected about women with similar backgrounds who have not had FGM or about women who have not used the health services, it cannot

be used to derive prevalence rates of FGM in the population. This means that indirect estimates of prevalence are still needed.

2.2 The need for new estimates of the prevalence of FGM

Much has changed since the previous estimates of the prevalence of FGM in England and Wales were produced. More recent population data are available from the 2011 census and improvements have been made to national migration statistics. These have shown that since 2001, the numbers of women from some FGM practising countries, notably countries in the Horn of Africa and Nigeria, Ghana and other countries in West Africa living in England and Wales have increased considerably,[20] as Table 7 and Figure 3 show. On the other hand, the numbers of women in this age group born in Kenya, Tanzania and Uganda have decreased. These were mainly South Asian women who migrated at an earlier period and who have now passed the age of 50.

Figure 3 Comparison of numbers of women aged 15-49 born in FGM practising countries, England and Wales Censuses, 2001 and 2011



In addition, as mentioned above, and shown in Table 2, more recent surveys undertaken in the FGM practising countries in which women were born have shown decreases in prevalence in some countries.[2,21]

The previous estimates for England and Wales as a whole provided very little information about the origins of the women and hence the type of FGM they were likely to have undergone. There was no indication at all of this in estimates produced at local authority level. More detailed local authority level data were therefore needed for planning and commissioning of services, to inform maternity, gynaecological and psycho-sexual care provision and for targeted advocacy with affected communities.

In particular, the Local Government and Public Involvement in Health Act 2007 requires that all local authorities and local public health departments produce a Joint Strategic Needs Assessment (JSNA) of the health and wellbeing of the local community. Without data on FGM, these needs assessments will have no foundation on which to build a picture of the local need for FGM-related services and the funds needed to provide them.

A separate study of FGM in Scotland was published in 2014.[22] Although the percentage of births to women born outside the United Kingdom has increased in Northern Ireland, the rise has largely been in migrants from Eastern Europe and numbers of women from FGM practising countries have risen but are still small. As a consequence, as in the earlier project, the scope of this report was restricted to England and Wales.

3 Objectives

The objectives of this project were:

(i) To use data from surveys in FGM practising countries and from other sources to derive updated proxy estimates of the prevalence of FGM among women born in the FGM practising countries and among their daughters.

(ii) To apply these to data collected at birth registration in England and Wales to produce updated and more reliable estimates of:

a. Numbers of women with FGM living in England and Wales and in each local authority area giving birth each year from 2000 to 2011.
b. Numbers of daughters born to women born in FGM practising countries resident in England and Wales and in each local authority area and numbers at risk of FGM.

(iii) To produce updated and more reliable estimates of numbers of women born in FGM practising countries and numbers of women with FGM living in England and Wales as a whole and in each local authority area in 2011.

(iv)To disseminate estimated numbers of women with FGM and girls at risk of FGM in their area to local authorities to enable them to produce guidance to support their community safety role in the reduction of FGM and also to other relevant organisations.

4 Study design

4.1 Countries of birth included

The estimates focus mainly on countries which are known to practise FGM and for which there are national survey data for the country of origin. An addition to the list in 2011 is Iraq. FGM is practised in Kurdistan, which is split between Iraq, Iran, Syria and Turkey, but there are no national data for Iran, Syria and Turkey. A recent study undertaken in selected areas of Iran confirmed that FGM is practised in some parts of Iranian Kurdistan as well as other communities in Iran.[23] Use of FGM has also been documented in some communities in other parts of the Middle East and Asia, including areas and population groups in Indonesia, Malaysia, India, Pakistan, Oman, Saudi Arabia and the United Arab Emirates.[5] The Democratic Republic of the Congo was included in the previous study, with an assumed prevalence of 5 per cent, but it is now believed that this should be zero.

4.2 Methods

4.2.1 Deriving updated proxy estimates of prevalence

The focus was particularly on countries which make a substantial contribution to numbers of women with FGM, either because their rates of prevalence are high or because their numbers are large, even though prevalence is lower, so they also make a major contribution to the numbers of women with FGM giving birth. In many of these countries, more recent surveys have been undertaken, so data from these have been used to update those in the earlier study and to examine changes over time. Data were derived from Demographic and Health Surveys (DHS) undertaken by governments with support from USAID[3] and the MICS supported by UNICEF[4] surveys. Both sets of surveys are household interview surveys using a common design to collect data about population, health, HIV, and nutrition. In countries where this is relevant they have a sheet of questions which have been reviewed to analyse prevalence of FGM in women and their daughters, starting with data reported in summary reports published by UNICEF[2] and DHS[21] and then going to the DHS and MICS web sites to look for any more recent surveys which were not included.

UNICEF reports showed that in some countries, prevalence rates in both the women interviewed and their daughters differed by level of education, religion and socio-economic status.[2,24] For countries in which more than one survey has been done, the data were compared to assess trends and variations in prevalence in relation to age, educational level, religion and socio-economic status.

This also drew on work already done by WHO, UNICEF and in recent literature reviews, notably those included in reports by the European Institute for Gender Equality to map the situation of FGM in the European Union and Croatia.[25] and in a study of prevalence of FGM in the Netherlands, undertaken by PHAROS with the Erasmus University Medical Centre.[26] The approach used here drew on that taken in a study in Spain.[27]

Age-specific rates of prevalence of FGM in countries of origin shown in Table 1 were extracted in June 2014, either from reports published by UNICEF[2] and DHS[24] or

directly from survey reports.[3,4] These were the most recent published data for each country. Where there are earlier reports, the age specific data are shown in the full list in Table 2, which shows the extent of changes over time in countries with more than one survey. The rates shown in Table 1 were also used in the for the regional and local authority estimates derived in the early part of 2015, but Tables 2 to 6 were updated in May 2015 for inclusion in this report.

These data along with data from Table 6 of the UNICEF report[2] which summarised the types of FGM practised in each country were used to group the countries as shown in Box 2. The groups were almost the same as in our previous study, with three exceptions. In that, overall prevalence in Togo had been estimated using data for 1993 from an unpublished report which suggested that it was 50 per cent, but an MICS survey undertaken in 2010 showed the prevalence to be under four per cent so it was moved from group 2 to group 3. Nigeria was moved from group 3 to group 2. Iraq was categorised as group 2 as, although prevalence was minimal in the country as a whole, it was high in Iraqi Kurdistan.

4.2.2 Estimates derived from census data

Analysis of the 2011 census was underway at the time the project was being planned and standard tables were being produced and published on the web site of the Office for National Statistics. Initially it was planned to request specially commissioned tables for this project, but after discussion with the ONS, it was decided to request an extract of anonymised census records for people born in FGM practising countries and analyse them in the secure environment of ONS' Virtual Microdata Laboratory (VML). These data were used to derive estimates at a national and local authority level. The tabulations have been examined in the VML as only aggregated disclosure controlled data can be released, where numbers are small, in line with ONS' disclosure control policies for census data.[28]

For the main analyses, data were requested for people born in the countries of birth shown in Table 1. The data items requested were sex, age in years, country of birth, local authority of residence and whether they were usually resident in the UK. Tabulations were produced of numbers of women permanently resident in England and Wales by country of birth and age grouped into five year age groups for England and Wales as a whole and for every region and local authority area within England and Wales. In addition, a table produced by ONS for its own work on childbearing of UK and non-UK born women[29] giving total numbers of residents in England and Wales tabulated by country of birth, sex and five year age groups, was made available for use in the VML and this was used to check the totals derived from the data.

In our previous project, all that was available to us was a table in this format, so age specific prevalence rates for each country were multiplied by the total numbers of women born in that country. Although we were aware that migrants to the UK from some African countries included substantial numbers of people of South Asian origin, we were unable to adjust for this. In the current project, having individual records meant that we could request data on ethnicity and religion and use these to exclude women from ethnic and religious groups which do not practise FGM from the analysis. We excluded people whose religion was stated to be Jew, Sikh, Hindu or

Buddhist or whose ethnic origin, using the census classification, was stated to be White, Asian, Asian British, Black Caribbean, Other Black, unless they had stated that their ethnicity was wholly or partially Kurdish, Somali, Somalilander or Nigerian.

For women aged 15-49, the age specific prevalence rates shown in Table 1 were multiplied by the numbers of women in the relevant age group born in the country to estimate the numbers of women with FGM. Numbers of women aged 50 and over were multiplied by the prevalence rate for women aged 45-49 in their country to estimate the numbers of women aged 50 and over with FGM. The prevalence rates for women aged 15-19 were used to estimate the numbers of girls aged 0-14 with FGM. Estimated numbers of women with FGM living in each region and local authority area were divided by the census populations for each local authority area given in Census Table P06 to produce prevalence rates for 1,000 population.

Some further data items were also requested in the census extract. These were age on arrival in the UK, year of arrival in the UK, passport held, main language spoken, proficiency in English, highest educational qualification, National Statistics Socio-economic Class, address one year ago, and size of household. The reason for choosing these additional variables was to see what information they yielded about the extent to which migrants to the UK differed from residents of their country of birth in general.

Data were also requested for people born elsewhere but who had characteristics associated with FGM practising countries, including those who had passports from one of these countries or stated that languages spoken in these countries were their first language. In addition to tabulations using standard tabulations by ethnic group, we also looked at a published table giving data about ethnicities which respondents write into the ‘other’ boxes on the census form and identified ethnicities relevant to FGM. These were Somali, mixed Somali, Somalilander, Nigerian, mixed Nigerian and Kurdish. Data were requested for anyone who described themselves as having any of these ethnicities. This information was used to attempt to assess the extent of second generation migrants with family origins in FGM practising countries.

4.2.3 Estimates derived from birth registration data

For each year from 2005 to 2013, an extract of anonymised data about women born in each FGM practising country who gave birth in England and Wales was provided by the Office for National Statistics for analysis in the secure environment of its VML The data items included were mother's country of birth, father's country of birth, mother's age in years at birth of child, Government Office Region, County code and County district code for mother’s usual place residence of mother, place of birth and multiplicity. Country and age specific prevalence rates were applied to the tabulated numbers of women to estimate the numbers of births to women with FGM from each country living in each local authority in each year, as data about ethnicity and religion are not recorded at birth registration in England and Wales.

It was not possible to directly exclude mothers from groups which do not practise FGM, so proportions of women in each country and age group were derived from the census analysis and applied to the numbers of maternities to estimate the numbers

of women to be excluded from estimates of prevalence. The analyses published in the interim report included births up to the year 2012. Since then, data about births in 2013 have been obtained.

A second anonymised extract of records of live births of girls was also supplied. This contains the same data items, except that it does not include place of birth and it includes fuller details of multiple births. This was used in the same way to estimate the likely numbers of girls born to mothers with FGM.

The national data on maternities and live births of girls for the years 2005 onwards were combined with data from the earlier project to produce estimates of numbers of women delivering and of girls aged under 15 born to women with FGM by country group.

Many of these analyses have small numbers is some cells so, because of disclosure control rules, they cannot be published in their raw form. The tables have been derived and examined in the secure environment of the ONS' VML and countries were grouped within the country groups shown in Box 2. ONS' disclosure control rules for births and deaths[30] were applied to the tables before release.

4.2.4 Ethics approval

The project uses fully anonymised individual records analysed in the secure environment of the ONS' VML so ethics approval was not required. Alison Macfarlane and Efua Dorkenoo made successful applications to ONS for Approved Researcher status and the project was submitted to the ONS Microdata Release Panel for approval. All outputs have been examined by ONS staff to ensure that no disclosive data are released, in line with ONS' disclosure control policies.[28,30] Data derived from DHS and MICS surveys were used in aggregated or anonymised form and no individuals were interviewed.

5 Results

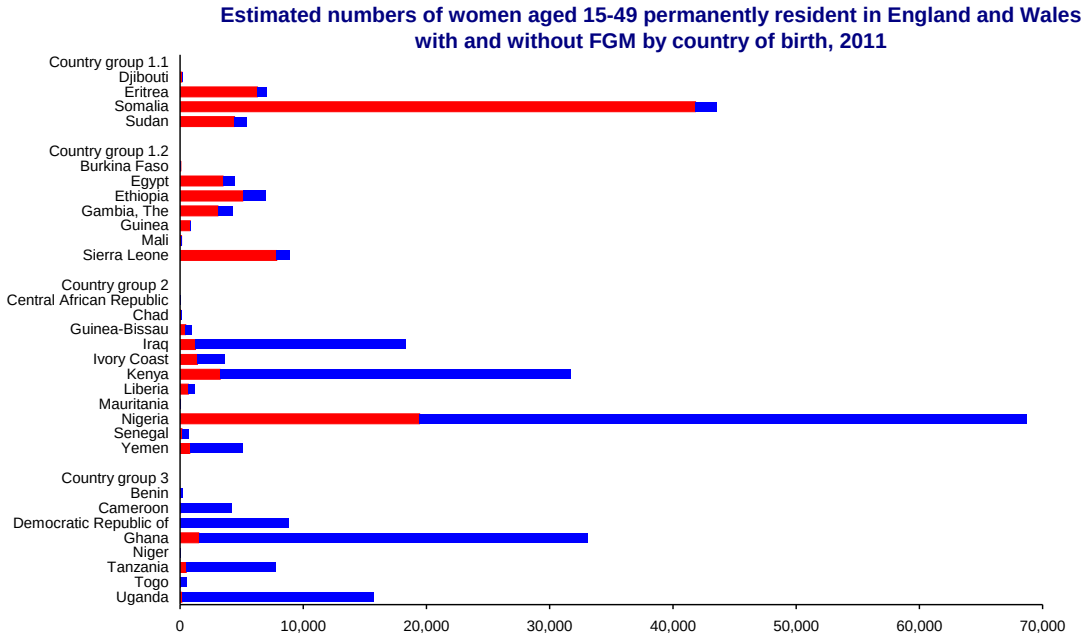
5.1 Estimated numbers of women and girls with FGM and prevalence rates

Estimated numbers of women aged 15-49 and 50 and over and girls aged 0-14 with FGM living in England and Wales in 2011 are shown in Tables 8, 9 and 10 respectively. They are tabulated by country of birth and country group and show that data for women born in Kenya, Tanzania and Uganda are particularly affected by excluding women of ethnicities and religions which do not usually practice FGM. Estimated numbers of women with FGM and prevalence rates per 1,000 population are shown by age group in Table 11. In line with ONS disclosure control rules, numbers under 10 have been suppressed and then a second number has been suppressed. The aim was to minimise the extent to which numbers of women aged 15-49 were suppressed. This means that, in some cases, comparatively large numbers of women aged 50 and over have been suppressed.

The estimated number of women aged 15-49 with FGM living in England and Wales as a whole was approximately 103,000, a prevalence of 7.7 per 1,000 population. Over half of these women, nearly 53,000, were born in countries in the Horn of Africa

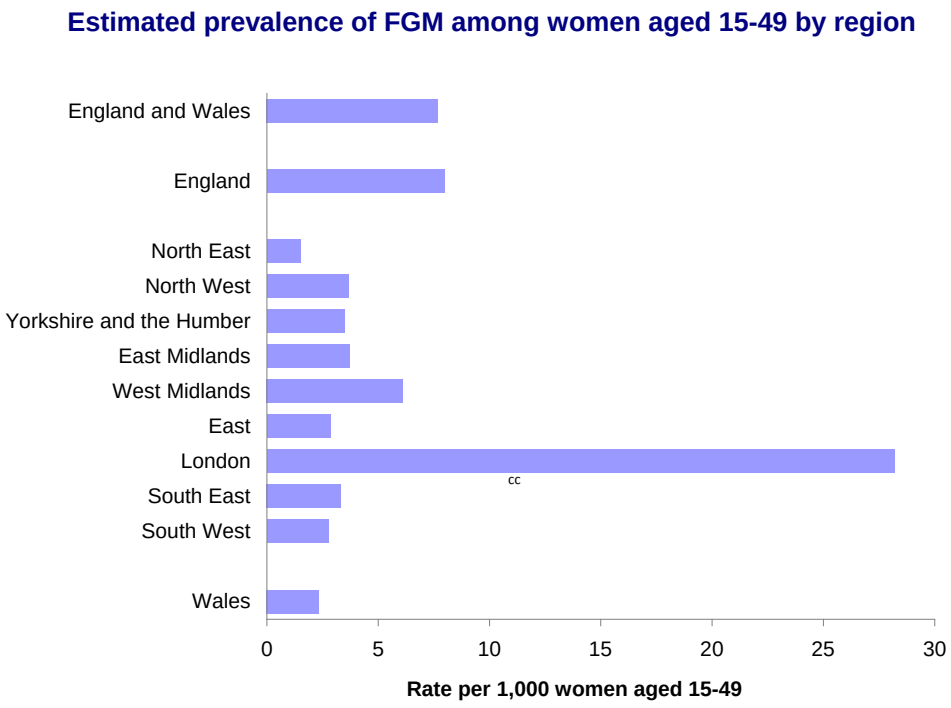
where FGM is virtually universal and Type III is commonly practised and over 20,000 were born in countries with high prevalences of Types I and 2. Figure 4 illustrates the extent of their contribution to the overall numbers.

Figure 4



Prevalence rates varied considerably by region, with London having by far the highest prevalence at 28.2 per 1,000 women aged 15-49. Rates for individual local authorities varied even more widely, with the highest being 57.5 per 1,000 in Southwark, while many mainly rural areas had prevalences well below one per 1,000,

Figure 5



but above zero, suggesting that there are at least some women of childbearing age with FGM living in nearly every local authority area. Data about variations within regions can be seen in Table 11.

Estimates of numbers of women aged 50 or more with FGM, shown in Table 9, suggest that there were nearly 24,000 women with FGM in this age group, a prevalence rate of 2.3 per 1,000. Of these, 9,400 were born in countries where FGM is almost universal, with Type 3 being commonly practised, and a further 5,600 were born in countries with almost universal FGM, usually Types I and II. As Figure 6 shows, prevalence rates for regions outside London were very markedly lower than in London, which had a prevalence of 15.8 per 1,000, but some boroughs had high rates, with the highest rate, 49.3 per 1,000 again being in Southwark.

Figure 6

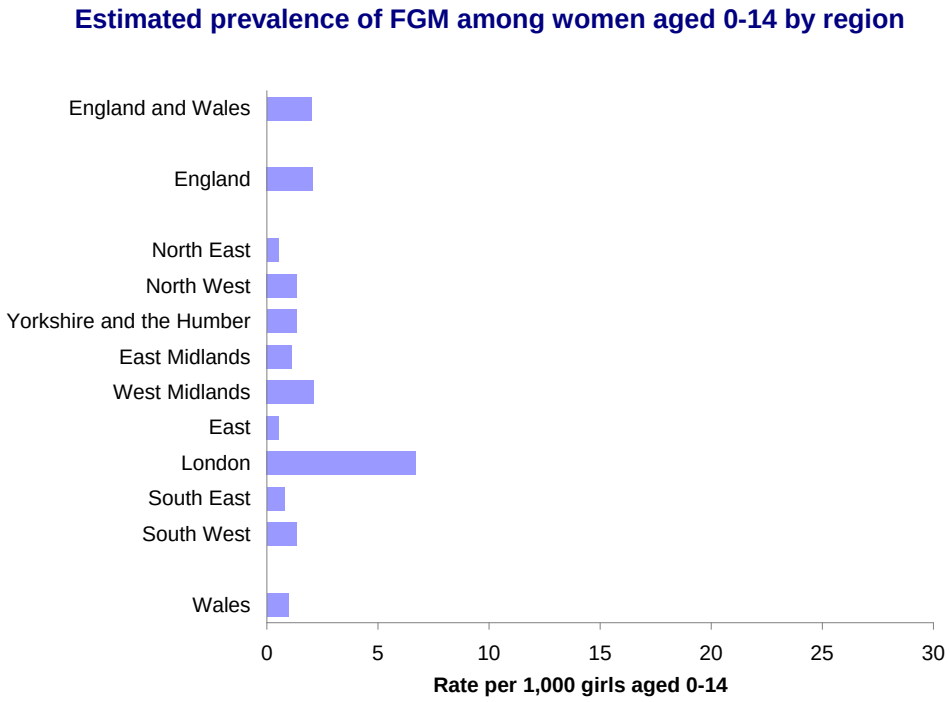
Estimated prevalence of FGM among women aged 50 and over by region

Estimated numbers of girls aged 0-14 born in FGM practising countries and estimated numbers with FGM are shown in Table 10. It was estimated that if they experienced FGM at the same rate as girls aged 15-19 in their countries of birth, then nearly 10,000 of them have undergone or will undergo FGM, an estimated prevalence of 2.2 per 1,000. The estimates were necessarily tentative, as some girls will have left their country of birth before the age at which they would usually have been subjected to FGM and there is insufficient information to assess whether or not this will have protected them from FGM.

Estimated prevalence rates varied between London and other regions to a much lesser extent than in the other two age groups, as Figure 7 shows. The prevalence was highest in the London Borough of Brent at 18.3 per 1,000, but the rate for Manchester, 9.2 per 1,000, was higher than that for many London boroughs.

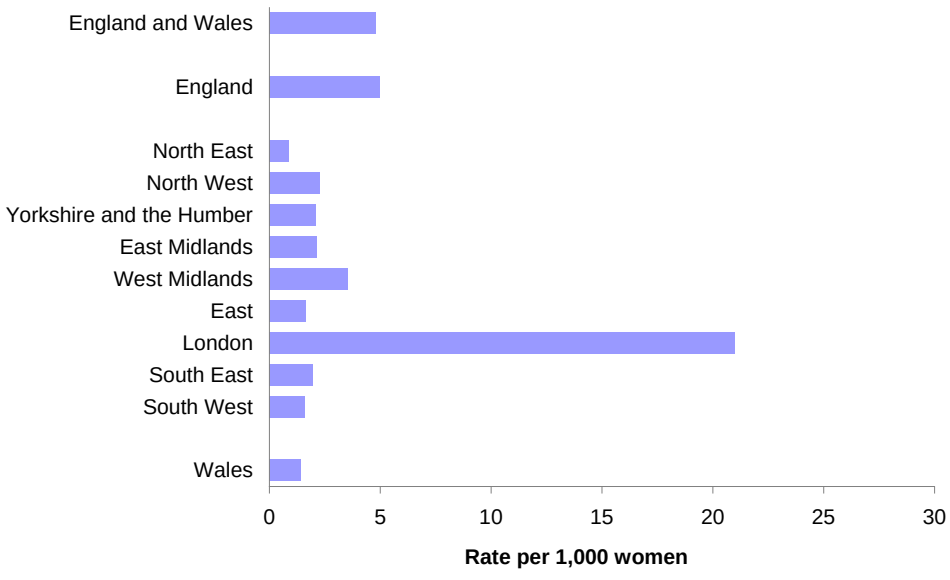
Adding the three age groups together, there were an estimated 137,000 women with FGM living in England and Wales, with a prevalence rate of 4.8 per 1,000 women in the population. The highest rates were in Southwark, with a prevalence of 47.4 per

Figure 7



1,000 and Brent with a prevalence of 38.9 per 1,000. Some of the highest rates were found in London boroughs, but outside London, Manchester, Slough, Bristol, Leicester and Birmingham have high prevalence rates, ranging from 12 to 16 per 1,000. Other authorities, including Milton Keynes, Cardiff, Coventry, Sheffield, Reading, Thurrock, Northampton and Oxford had rates of over 7 per 1,000. For the most part, people born in countries where FGM is practised tended to be concentrated in urban areas, but there are likely to be affected women and girls living in every local authority area.

Figure 8



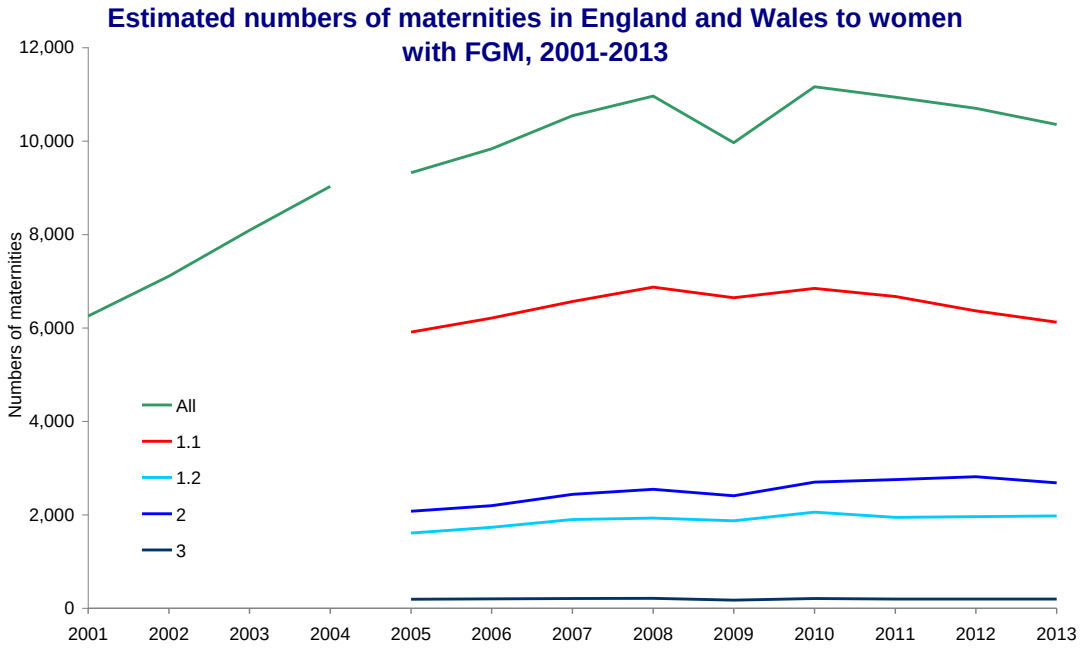
5.2 Estimated numbers of women with FGM giving birth

These are expressed in terms of maternities, which are defined as pregnancies ending with one or more registrable live or stillbirths and thus are counts of women rather than babies. After increasing steeply over the years 2001 to 2004, as documented in our earlier report, the estimated numbers of maternities to women with FGM increased from just over 9,000 in 2005 to nearly 11,000 in 2008, since when the numbers have levelled off, as Table 12 and Figure 9 show. About three fifths of these women were from countries where FGM is almost universal and Type III is commonly practised. As Figure 10 shows, the estimated percentage of women with FGM fluctuated around 1.5 per cent of all maternities.

The percentage of maternities to women with FGM varies widely between regions and local authorities of England and Wales, as shown in Table 13 which contains estimates of the percentage of maternities to women with FGM in each local authority area for two time periods, 2005-2008 and 2009-2013 as well as the whole period 2005-2013. The highest percentages were in London boroughs, with an estimated 10.4 per cent of maternities in Southwark being to women with FGM. There were also relatively high percentages in major cities outside London. The patterns reflected those in the prevalence of FGM, with low but non-zero estimated percentages in many areas.

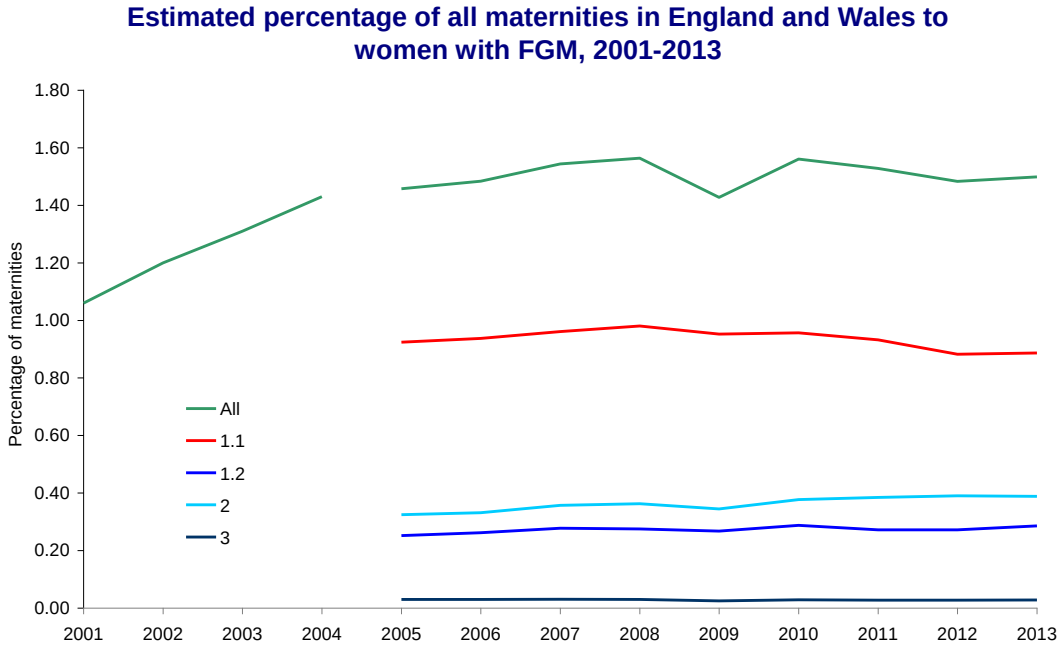
Table 14 shows trends for each region as a whole, the local authorities with prevalences of one per cent and over and compares these with much lower overall percentages for the remainder of local authorities in each region. These are shown in detail for each region.

Figure 9



Source: Authors' analysis of ONS data

Figure 10



Source: Authors' analysis of ONS data

5.3 Girls born to mothers with FGM

Estimated numbers of girls born in England and Wales to mothers with FGM and to all mothers from FGM practising countries are shown in Table 16. From 1996 to 2010,144,000 girls were born in England and Wales to mothers born FGM practising countries and nearly 43,000 were born in 2011 to 2013, as Table 16 shows. It was estimated that 60,000 of the girls aged 0-14 born before 2011 and 17,300 of those born in 2011 to 2013 were born to mothers with FGM. In both cases, well over half of the mothers came from the countries in the Horn of Africa where FGM is almost universal and Type III is practised and slightly under a fifth came from the countries in West and East Africa where Types I and II are highly prevalent.

Figures 11 and 12 show trends over the years 1993 to 2012 in numbers of girls born to women from FGM practising countries and in estimated numbers born to women with FGM. While in overall terms, the increase was in numbers of girls born to women born in countries in Group 2, where prevalence is in the medium range, the increase in numbers of girls born to mothers with FGM related particularly to those from countries where FGM is nearly universal and Type III is commonly practised.

Table 17 shows estimated percentages of girls were born to mothers with FGM living in every region and local authority area in England and Wales. These show similar patterns to maternities, with high percentages in most London boroughs and many major cities and other areas with high prevalences of FGM and low but non-zero percentages in many areas.

Figure 11

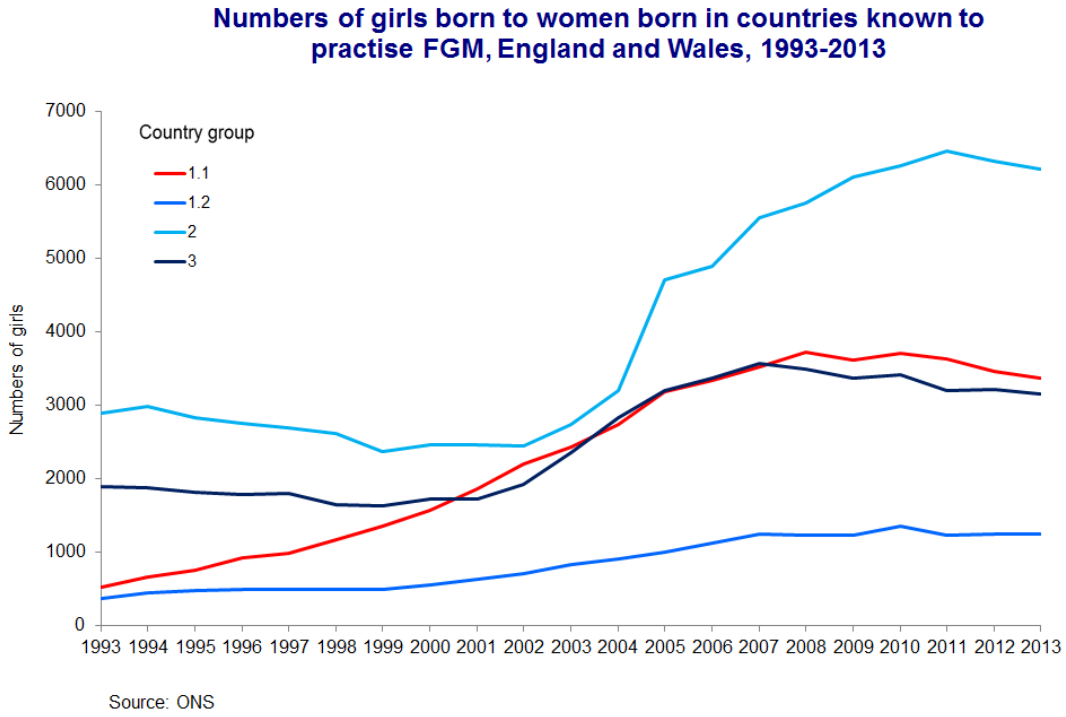
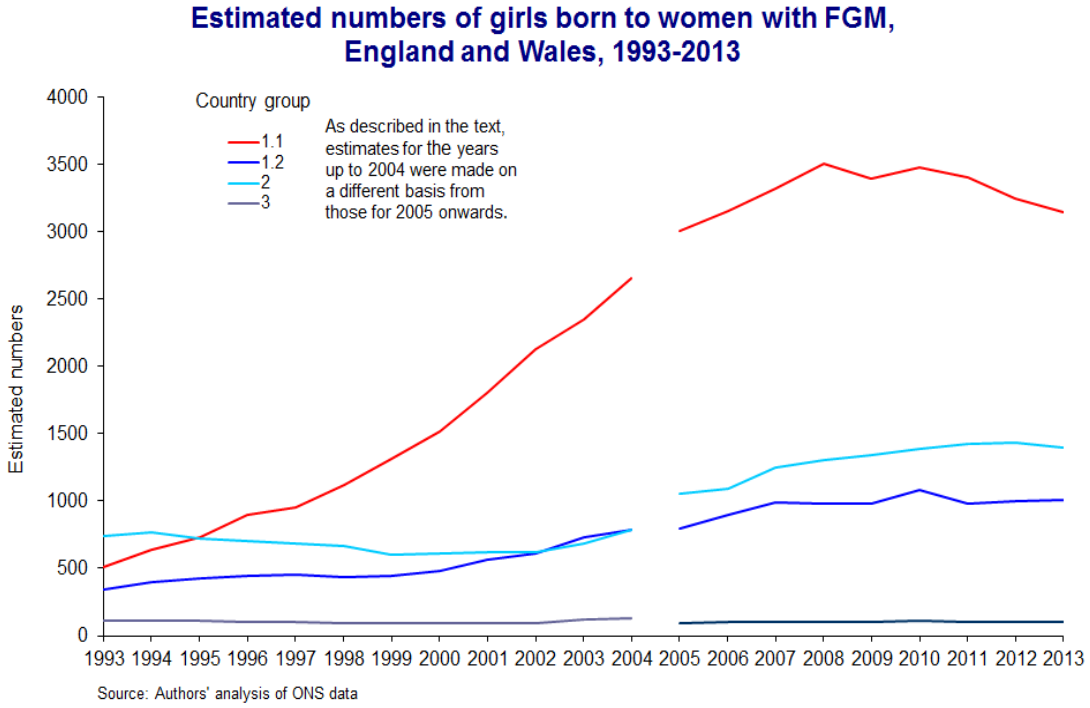


Figure 12



5.4 Short term and secondary migration

In addition to permanent residents, nearly 4,200 temporary residents born in FGM practising countries were enumerated in 2011, of whom just over 900 came from countries where FGM is almost universal. Although these women may have moved on, others are likely to have succeeded them.

Women who described their ethnicity as Kurdish made up a fifth of those born in Iraq. Just over 3,000 were born in Turkey and just over 2,000 were born in Syria, Iran and other mainly unspecified parts of the Middle East. Nearly 5,000 were born in the UK, mainly in England and nearly 600 in other EU countries, with nearly 500 being born in other parts of the world. It is difficult to assess the extent to which they practise FGM, given the evidence of variations between Kurdish groups in Iran.[23]

Another group identified was Somalis, including women writing in their ethnicity as Somali, mixed Somali or Somalilander. Although over half were born in Somalia, substantial numbers were born in the UK, the Netherlands or the Nordic countries.

5.5 How reliable are these estimates?

A key question is the validity of applying prevalence rates to women who have left their countries of birth and the extent to which the women who migrate, especially from countries with lower prevalences of FGM, are typical of their populations in general.

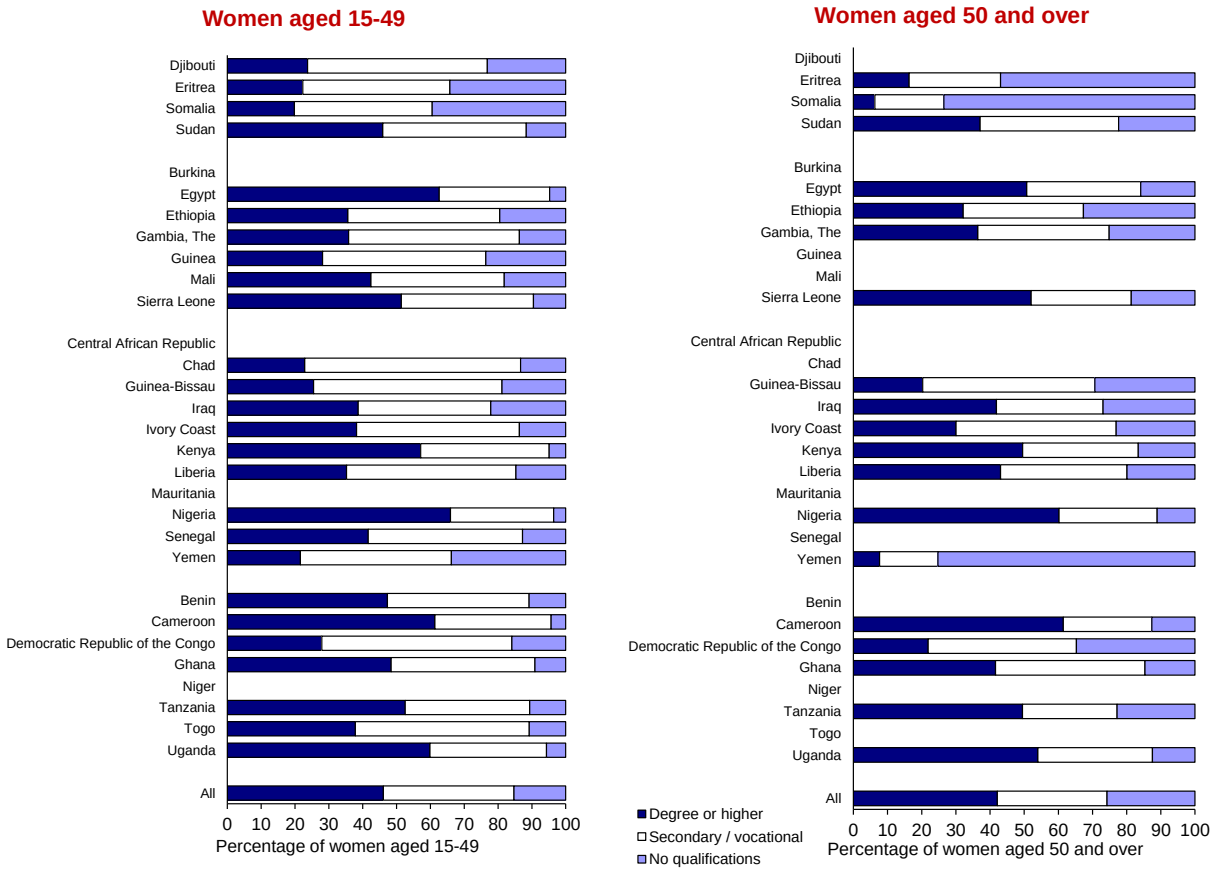
As Table 5 shows, in some but not all countries, the prevalence of FGM is lower in more highly educated women, a marked exception being Nigeria. Data about educational level recorded in the censuses for England and Wales do not use the same categories as the DHS and MICS surveys. Figure 13 shows that a considerable proportion of women of child bearing age born in FGM practising countries is highly educated, with considerable proportions from some countries being graduates.

In the absence of regional data within FGM practising countries, we looked at the women's first languages reported in the census, but as these were predominantly English, this shed little light on regional patterns of migration.

In addition, to questions of whether the women who migrate are typical, there is evidence that Black African women as a whole are slightly more likely to be under-enumerated in the census than the population of England as a whole.[31]

In 2014, the Department of Health started to collect data about women identified as having FGM by NHS trust of treatment. As birth registration data for England and Wales record the maternity unit of birth, an attempt was made to compare data about births in 2013 with the FGM data. This proved difficult, because of differences between ONS communal establishment codes and NHS organisation codes and because the Department of Health data did not identify women who were delivering a baby. Within year comparisons may be possible and useful in the future, however.

Figure 13 Educational qualifications by country of birth, women resident in England and Wales, 2011



5.6 Other estimates of prevalence of FGM

A report published in 2014, based on 2011 census data and ONS' birth statistics concluded that there were 170,000 women aged 15 and over in England and Wales with FGM and that 63,000 girls aged 0-13 were at risk of FGM.[32] This did not subdivide the women by age group and all women were included instead of excluding white and South Asian women, who make up a substantial proportion of women aged 50 and over born in FGM practising countries. All asylum seekers were added in, instead of just those from FGM practising countries. According to the Home Office's Asylum Statistics, the numbers of applications from women nationals from FGM practising countries were 2,641 in 2011 and 2,841 in 2012.[33]. If the numbers in 2013 are at a similar level, the total would be well under 9,000, rather than the 52,500 the author assumed.

The author used overall prevalences taken from a voluntary organisation's web site rather than using age specific data directly from UNICEF and DHS reports. When estimating the numbers of girls at risk, she included all girls irrespective of the prevalence rates in their mothers' countries of birth. Her estimates relate to girls aged 0-12, while our estimates of 60,300 girls born to mothers with FGM related to the 0-14 age group.[34] Finally, she quoted data as if they related to the UK as a whole, although her source was the ONS, whose census and birth statistics do not routinely include Scotland and Northern Ireland.

6. Discussion

The way the estimates have been made here are not directly comparable with our earlier report.[18] Because we have been able to analyse individual anonymised census records, we have been able to exclude white and South Asian women born in FGM practising countries and produce more reliable estimates. Iraqi Kurdistan was not included in our earlier estimates, as no data were available. Although some data are now available for Kurdish populations in Iran, no data are available to indicate whether FGM is practised in other parts of Kurdistan. Despite this, the estimated numbers have increased substantially, following migration both from countries in the Horn of Africa and West and East Africa with very high rates of FGM and migration from Nigeria, which has lower rates.

In addition, our earlier estimates were restricted to women aged 15-49. Adding estimates for women aged 50 and over gives a fuller picture of the growing numbers of women in this age group. They will experience gynaecological problems for which they need medical care and may also influence decisions about the practice of FGM among young girls in their families and communities.

Our earlier report attempted to assess the numbers of girls born in the England and Wales who could be described as being 'at risk'. This is no longer appropriate. On the one hand, qualitative research has shown that attitudes to FGM have changed on migration and in response to community based programmes and many families have abandoned it while on the other, there are still reports of girls living in England and Wales being subjected to FGM or threatened with it. In neither case, has the extent been quantified in a way which can be used in numerical estimates at a population level. Risks to girls have to be assessed through contacts with individual mothers and families.

In addition to the possible sources of bias outlined above, many of the estimates are based on small numbers and thus are subject to wide statistical variability. This should be born in mind when interpreting them, especially as statistical control limits have not been calculated.

The analysis of numbers of people born in FGM practising countries included in the recent study in Scotland was less detailed than ours, although it had a wider remit. It also found that people were widely dispersed throughout Scotland and attributed some of this to policies of dispersing refugees and asylum seekers.[22]

The problems in interpreting these proxy data underline the need for directly collected data. It would potentially be possible to make comparisons with data published by the Department of Health, but this would not be possible using published aggregated data. These are tabulated by NHS trust of treatment aggregated by Clinical Commissioning Group and women having babies are not identified separately.

7. Conclusions

This report shows that the estimated numbers of women with FGM have increased since 2001, especially due to migration from countries in conflict. A substantial proportion of the increase which is among women from countries where FGM is nearly universal or prevalence is high. Although women with FGM tend to be concentrated in inner city areas and major cities, they are also widely dispersed and it is likely that some women with FGM are living in every local authority area. This has implications for service planning. While dedicated services may be needed in areas with large numbers of women with FGM, services in all areas should be aware of their needs and have strategies to meet them.

Acknowledgements
This project was funded by Trust for London and the Home Office. The views expressed are those of the authors. The authors would like to thank the funders for their financial support.

This work contains statistical data from ONS which is Crown Copyright. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates.

The authors would like to thank staff in the ONS and the Home Office Migration Statistics Unit for their help and advice. In particular we should like to thank the ONS team responsible for the VML.

References

1. WHO. Eliminating female genital mutilation. An interagency statement - OHCHR, UNAIDS, UNDP, UNECA, UNESCO, UNFPA, UNHCR, UNICEF, UNIFEM, WHO. Geneva: WHO, 2008. http://www.who.int/reproductivehealth/publications/fgm/9789241596442/en/index.html
2. UNICEF. Female Genital Mutilation/Cutting: A statistical overview and exploration of the dynamics of change. New York: UNICEF, 2013.
3. The DHS Program. Demographic and Health Surveys. http://www.dhsprogram.com/ Accessed 20 July 2015.
4. UNICEF. Multiple Indicator Cluster Survey (MICS). http://mics.unicef.org/ Accessed 20 July 2015.
5. Stop FGM Middle East. http://www.stopfgmmideast.org/research/ Accessed 20 July 2015.
6. Elmusharaf S, Elhadi N, Almroth L. Reliability of self reported form of female genital mutilation and WHO classification: cross sectional study. BMJ, doi:10.1136.649074.55(published 27 June 2006).
7. Ministry of Health and Population, El-Zanaty and Associates and ICF International. Egypt Demographic and Health Survey. Cairo, Egypt, 2015.
8. Berg RC, Underland V. The obstetric consequences of female genital mutilation/cutting: a systematic review and meta-analysis, Obstetrics and Gynecology International 2013 Article ID 496564.
9. Berg RC, Denison E. Does female genital mutilation/cutting (FGM/C) affect women's sexual functioning? A systematic review of the sexual consequences of FGM/C. Sexuality Research and Social Policy, 2012; 9(1): 41–56,
10. Behrendt A, Moritz S. Posttraumatic stress disorder and memory problems after female genital mutilation, Am J Psychiatry 2005;162:1000-02.
11. Vloeberghs E et al. Veiled Pain. A study in the Netherlands on the psychological, social and relational consequences of female genital mutilation. Utrecht, The Netherlands: Pharos Foundation,.2011
12. HM Government. The Government's Multi-Agency Practice Guidelines: Female Genital Mutilation. 2011 www.fco.gov.uk/fgm.
13. Bjälkander O. female genital mutilation in Sierra Leone. Stockholm, Sweden: Department of Public Health Sciences, Division of Global Health (IHCAR) Karolinska Institutet, 2013.
14. Brown E, Hemmings J. The FGM Initiative. evaluation of the first phase (2010-2013). Final report. London: Options Consultancy Services Ltd, 2013.
15. Hemmings J. The FGM Initiative. INTERIM REPORT. October 2011. http://www.trustforlondon.org.uk/wp-content/uploads/2013/09/FGM-Interim-Report1.pdf Accessed 20 July 2015.
16. European Parliament, European Parliament Resolution of 24 March on Combatting FGM in the EU(2008/2071(INI) http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2009-0161+0+DOC+XML+V0//EN. Strasbourg: European Union, 2009.
17. Brown K et al. The applicability of behaviour change in intervention programmes targeted at ending female genital mutilation in the EU: integrating social cognitive and community level approaches. Obstetrics and Gynecology International 2013, Article ID 324362, http://dx.doi.org/10.1155/2013/324362
18. Dorkenoo E, Morison L, Macfarlane A. A statistical study to estimate the prevalence of female genital mutilation in England and Wales. Summary report. London: Foundation for Women's Health, Research and Development (FORWARD), 2007. http://openaccess.city.ac.uk/13117
19. Health and Social Care Information Centre. Female genital mutilation datasets. http://www.hscic.gov.uk/fgm Accessed 20 July 2015.

20. Office for National Statistics and Home Office. Immigration patterns of Non-UK Born Populations in England and Wales in 2011. Home Office and Office for National Statistics, 2013
21. Yoder PS, Wang S. Female genital cutting: The interpretation or Recent DHS Data. DHS Comparative Reports No. 33. Calverton, Maryland: ICF International, 2013.
22. Baillot H, Murray N, Connelly E, Howard N. Tackling female genital mutilation in Scotland. A Scottish model of intervention. Glasgow: Scottish Refugee Council, 2014.
23. Ahmady K. A comprehensive research study on female genital mutilation / cutting in Iran. 2015 www.kameelahmady.com Accessed 19 July 2015.
24. UNICEF. Female genital cutting. A statistical exploration. New York: UNICEF, 2005.
25. European Institute for Gender Equality. Study to map the current situation and trends of female genital mutilation in 27 EU Member States (MS) and Croatia. http://eige.europa.eu/sites/default/files/EIGE-Report-FGM-in-the-EU-and-Croatia_0.pdf. Belgium: EIGE, 2013.
26. Exerkate M. Female genital mutilation in the Netherlands: Prevalence, incidence and determinants. Pharos: Utrecht, the Netherlands, 2013.
27. Marcusan AK, Gay AL. Mapa de la Mutilación genital Fémina en España 2012. Barcelona : Universiade Autonoma de Barcelona, 2013
28. Office for National Statistics. Statistical disclosure control for 2011 Census. Accessed 20 July 2015.
29. Dornon O. Childbearing of UK and non-UK born women living in the UK – 2011 Census data. Office for National Statistics, 2014.
30. Gordon E, ed. Disclosure control guidance for birth and death statistics. Briefing note (revised Jan 2014) on the publication of tabular data. Version 3.0. Newport: Office for National Statistics, 2011.
31. Office for National Statistics. Response rates in the 2011 Census. 2011 Census: Methods and Quality Report. December 2012.
32. Bindel J. An Unpunished Crime: The lack of prosecutions for female genital mutilation in the UK. London: New Culture Forum, 2014.
33. Home Office. Asylum tables. Table As4. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/311790/asylum1-q1-2014-tabs.ods Accessed 11.07.14.
34. Macfarlane A, Dorkenoo E. Female Genital Mutilation in England and Wales: Updated statistical estimates of the numbers of affected women living in England and Wales and girls at risk. Interim report on provisional estimates. London: City University London and Equality Now, 2014. http://openaccess.city.ac.uk/3865/