Using anonymised individual census records to estimate the prevalence of female genital mutilation in local authority areas in England and Wales

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Efua Dorkenoo
Formerly of Equality Now

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Definition

Female Genital Mutilation / Cutting (FGM) comprises all procedures that involve partial or total removal of the female external genitalia and/or injury to the female genital organs for cultural or non-therapeutic reasons (WHO 1995).
WHO classification of FGM by type

**I** Partial or total removal of the clitoris and/or the prepuce (clitoridectomy).

**II** Partial or total removal of the clitoris and the labia minora, with or without excision of the labia majora minora and the labia majora (excision).

**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).

**IV** Unclassified: All other harmful procedures to the female genitalia for non-medical purposes, usually for cosmetic purposes.
Map 4.1 FGM/C is concentrated in a swath of countries from the Atlantic Coast to the Horn of Africa

Percentage of girls and women aged 15 to 49 years who have undergone FGM/C, by country

Source: UNICEF: Female Genital Mutilation/Cutting: A statistical overview and exploration of the dynamics of change. 2013
Countries with FGM reported but no national data

Iran – mainly Kurdistan
Indonesia – some recent national data
Oman
Saudi Arabia
United Arab Emirates
Some populations in India and Pakistan
Countries to which women have migrated
Estimating the prevalence of female genital mutilation in England and Wales

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Objectives

To estimate for residents of England and Wales:

1. Prevalence of FGM among women aged 15-49

2. The estimated numbers of maternities which were to women who have undergone FGM

3. The numbers of girls aged under 15 with or at risk of FGM and the type of FGM
### Sources of data on prevalence of FGM

<table>
<thead>
<tr>
<th>Source</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic and Health Surveys (DHS)</td>
<td>Benin, Burkino Faso, Cameroon, Cote D’Ivoire,</td>
</tr>
<tr>
<td>implemented by Macro International for USAID.</td>
<td>Egypt, Eritrea, Ethiopia, Ghana, Guinea,</td>
</tr>
<tr>
<td></td>
<td>Kenya, Mali, Mauritania, Niger, Nigeria,</td>
</tr>
<tr>
<td></td>
<td>Senegal, Tanzania, Yemen</td>
</tr>
<tr>
<td>Multiple Cluster Indicator Surveys (MICS)</td>
<td>Central African Republic, Chad, Sudan (North)</td>
</tr>
<tr>
<td>undertaken by government with help from</td>
<td></td>
</tr>
<tr>
<td>UNICEF or other UN agencies</td>
<td></td>
</tr>
<tr>
<td>Other ad hoc surveys and estimates</td>
<td>Democratic Republic of the Congo, Djibouti,</td>
</tr>
<tr>
<td></td>
<td>Gambia, Djibouti, Guinea Bissau, Liberia,</td>
</tr>
<tr>
<td></td>
<td>Sierra Leone, Somalia, Togo, Uganda</td>
</tr>
</tbody>
</table>
## FGM practising country groups

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1(i)</td>
<td>Almost universal FGM, over 30% FGM Type III</td>
<td>Sudan (north), Somalia, Eritrea, Djibouti.</td>
</tr>
<tr>
<td>1(ii)</td>
<td>High national prevalence of FGM WHO Type I and II</td>
<td>Egypt, Ethiopia, Mali, Burkina Faso, Gambia, Guinea, Sierra Leone</td>
</tr>
<tr>
<td>2</td>
<td>Moderate national prevalence of FGM WHO Type I and II</td>
<td>Central African Republic, Chad, Cote D’Ivoire, Guinea Bissau, Kenya, Liberia, Mauritania, Senegal, Togo</td>
</tr>
<tr>
<td>3</td>
<td>Low national prevalence of FGM WHO Type I and II</td>
<td>Benin, Cameroon, Ghana, Niger, Nigeria, Democratic Republic of Congo, United Republic of Tanzania, Uganda, Yemen</td>
</tr>
</tbody>
</table>
Prevalence of FGM by age and country

Source: DHS Surveys
Prevalence of FGM in England and Wales among women aged 15-49 in 2001

Method
Originally used in United States by CDC
Used
1. Census data on the numbers of women aged 15-49 resident in England and Wales and born in FGM practising countries, from Table M1000, population by sex by five year age group.
2. Estimated age-specific FGM prevalence rates in country of birth were multiplied by numbers of women in the same age group born in that country to estimate numbers with FGM.
Prevalence of FGM in England and Wales among women aged 15 and over in 2001

Result

Women born in FGM practising countries
Number enumerated  174,528
Estimated number with FGM  65,790
Problems

9,030 women born in Africa who did not state country
Low response to census in inner city areas and possible under-enumeration
Women who migrated may not have been typical of women in the population as a whole
Estimates do not include women who were born in non-practising countries but still underwent female genital mutilation
Numbers are likely to have increased since 2001 because of further migration.
Definition

Maternity:
A pregnancy ending with one or more registered live or stillbirth

This is a measure of the number of women giving birth. If a woman has twins this counts as one maternity.
Estimated numbers of maternities which were to women who had undergone FGM

Method

1. Numbers of registered maternities to residents of England and Wales by mother’s country of birth and age.

2. Estimated age-specific FGM prevalence rates in country of birth were multiplied by numbers of maternities to women in the same age group born in that country to estimate numbers with FGM.

Barriers

Population (Statistics) Acts,
Disclosure control
Took eight months to get through ONS’ Microdata Release Panel
## Estimated number and percentage of maternities to women with FGM, England and Wales, 2001 to 2004

<table>
<thead>
<tr>
<th>Year</th>
<th>Women born in FGM practising countries</th>
<th>Women with FGM</th>
<th>All women</th>
<th>Percentage of maternities to women with FGM</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>13,328</td>
<td>6,256</td>
<td>588,868</td>
<td>1.06</td>
</tr>
<tr>
<td>2002</td>
<td>14,666</td>
<td>7,109</td>
<td>590,453</td>
<td>1.20</td>
</tr>
<tr>
<td>2003</td>
<td>16,890</td>
<td>8,090</td>
<td>615,787</td>
<td>1.31</td>
</tr>
<tr>
<td>2004</td>
<td>19,356</td>
<td>9,032</td>
<td>633,651</td>
<td>1.43</td>
</tr>
</tbody>
</table>
Conclusions of first study, 2007

An estimated 66,000 women with FGM were living in England and Wales in 2001. This is likely to be an underestimate. Migration statistics suggest numbers have increased since 2001 but are inadequate for quantifying the increase. Estimated percentages of all maternities to women with FGM increased from 1.06 in 2001 to 1.43 per cent in 2004. Over 24,000 girls under the age of 15 are at high risk of Type III FGM and nearly 9,000 are at risk of Type I or Type II. A survey is needed to obtain better estimates.
Aims of second study, 2014-15

To produce for England and Wales and for each local authority area, estimates of:

1. Numbers of women with FGM in the population enumerated in 2011 census
2. Numbers of women with FGM giving birth, 2005-2013
3. Numbers of daughters born, 2005-2013 to women with FGM
Indirect estimates of prevalence of FGM

Data on age specific prevalence by five year age groups in countries of origin were applied to:

1. Numbers of women born in each of these countries and enumerated in 2011 population census of England and Wales.

2. Birth registration data about women born in each of these countries and delivering one or more registrable baby in England and Wales in 2005-2013.

3. The numbers of girls born to these women.

The rates for women aged 15-19 were used for the 0-14 age group and rate for 40-49 for 50+ age group.
<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Almost universal FGM, over 30% WHO Type III</td>
<td>Sudan (north), Somalia, Eritrea, Djibouti</td>
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<tr>
<td>1.2</td>
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<td>2</td>
<td>Moderate national prevalence of FGM, WHO Types I and II</td>
<td>Central African Republic, Chad, Cote D’Ivoire, Guinea Bissau, Iraq (Kurdistan), Kenya, Liberia, Mauritania, Nigeria, Senegal, Togo</td>
</tr>
<tr>
<td>3</td>
<td>Low national prevalence of FGM, WHO Types FGM I and II</td>
<td>Benin, Cameroon, Ghana, Niger, (Democratic Republic of Congo), United Republic of Tanzania, Togo, Uganda, Yemen</td>
</tr>
</tbody>
</table>
Numbers of women aged 15-49 born in FGM-practising countries, England and Wales
Numbers of women aged 15-49 born in FGM practising countries, England and Wales, 2001 and 2011

<table>
<thead>
<tr>
<th>Country group</th>
<th>2001</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>21,841</td>
<td>56,245</td>
</tr>
<tr>
<td>1.2</td>
<td>15,306</td>
<td>25,664</td>
</tr>
<tr>
<td>2</td>
<td>89,795</td>
<td>130,663</td>
</tr>
<tr>
<td>3</td>
<td>55,132</td>
<td>70,417</td>
</tr>
<tr>
<td>All</td>
<td>182,074</td>
<td>282,989</td>
</tr>
</tbody>
</table>
Accessing individual level data for analysis

Anonymised individual census and birth registration records were analysed in the secure environment of the Office for National Statistics’ Virtual Microprocessor Laboratory (VML)

Disclaimer:
‘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’.
Estimating numbers of women with FGM

Census data:
- Country of birth
- Age
- Ethnicity, standard categories
- Ethnicity, self reported – Somali, Kurd, Nigerian
- Religion

Exclusions
- Hindu, Buddhist or Sikh religion
- White or South Asian ethnicities
Numbers of women aged 15-49 born in FGM practising countries and estimated numbers with FGM, 2011

<table>
<thead>
<tr>
<th>Country group</th>
<th>Enumerated</th>
<th>Estimated numbers with FGM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>56,245</td>
<td>52,717</td>
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</tr>
<tr>
<td>All</td>
<td>282,989</td>
<td>103,177</td>
</tr>
</tbody>
</table>
Estimated prevalence rates per 1,000 women in the population by local authority, 2011

For maps of prevalence rates, see:

http://gicentre.org/fgm2015/
Estimation of numbers of women with FGM giving birth and daughters born

Same principle as for census, but data more limited
Country of birth of mother and father
Age of mother
Sex of child
Number of children born – singleton, twins ... 

Ethnicity and religion not recorded so country and age specific multiplying factors derived from census data to estimate numbers of women who should be excluded.
Estimated percentage of all maternities in England and Wales to women with FGM, 2001-2013

As described in the text, estimates for the years up to 2004 were made on a different basis from those for 2005 onwards.

Source: Authors’ analysis of ONS data
Estimated percentages of maternities which were to mothers with FGM by local authority, 2005-2013

For maps, see:

http://gicentre.org/fgm2015/
Can we estimate risks to daughters born in England and Wales?

It is illegal to perform FGM in the UK or to perform it elsewhere on UK residents.

Qualitative studies and news reports suggest that many families give up FGM on migration.

Despite this, some girls born in the UK are subjected to FGM in their parents’ countries of birth or other countries or in the UK.

No reliable data to quantify this.
Estimated numbers of girls born to women with FGM, England and Wales, 1993-2013

Country group
- 1.1
- 1.2
- 2
- 3

As described in the text, estimates for the years up to 2004 were made on a different basis from those for 2005 onwards.

Source: Authors' analysis of ONS data
Limitations

Prevalence in practising countries varies by region, ethnic and religious group.

Regions of birth within countries are not recorded in data systems in the United Kingdom.

Language spoken is not a useful proxy as many women give English as their main language in census.

Ethnic categories used in England and Wales do not relate to those in women’s countries of birth.

Black women are known to be under-enumerated in census.

Further migration will have taken place since 2011.
Selective migration?

Reasons for migration to UK vary between countries and over time.

Women born in many but not all FGM-practising countries include a high proportion of graduates, especially in 15-49 age group.

More educated women are less likely to have FGM in many but not all countries.
Direct recording of information about FGM in England

New information systems
Operated by NHS Digital, formerly the Health and Social Care Information Centre, on behalf of the Department of Health

FGM enhanced dataset
Started April 2015
Data about women receiving care in hospitals and general practices
Mandatory but considerable under-reporting
Data missing from many reports

FGM Risk Information System
Will add a risk indicator to a girl’s Summary Care Record
Use of estimates of prevalence of FGM

National and local estimates are signposts for planning services but should be supplemented by local information.

Estimated prevalence is zero in no local authority.

Lack of information about region of birth makes estimates problematic for populations with wide differences. Locally, health professionals can ask fuller details about women’s origins within their country.

Women who migrate cannot be assumed to be typical of women in their country so this should influence interpretation of estimates.
Where to find the reports

Web page

Reports and tables
http://openaccess.city.ac.uk/13117/
http://openaccess.city.ac.uk/3865/
http://openaccess.city.ac.uk/12382/

Maps
http://gicentre.org/fgm2015/

For further information, contact  A.J.Macfarlane@city.ac.uk
References

