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**Retrospective study into the prevalence of female
circumcision or FGM (female genital mutilation)
in midwifery practice in 2008**

Date	May 2009
Author(s)	Dineke Korfker Marlies Rijnders Symone Detmar
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Summary

There was a huge response from midwifery practices to the questionnaire in which they were asked about the numbers of circumcised women they cared for in 2008 (response 93%, n=478). They reported that they had seen 470 circumcised women in 2008. This puts the prevalence of female genital mutilation (FGM) measured retrospectively during pregnancy, childbirth or confinement in midwifery practice at 0.32% (over 3 circumcised women for every 1000 pregnant women).

According to provisional birth figures from Statistic Netherlands, over 1500 women from high-risk countries such as Somalia, Ethiopia and Egypt gave birth in 2008. Midwives saw 1200 of these women, 470 of whom were circumcised – less than half (4 out of 10). That is lower than expected and also much lower than in the countries of origin, where 9 out of 10 women are circumcised. There may be some underreporting in midwifery practice due to the nature of the study and because midwives do not always enquire about the subject. Over two thirds were sure about the number of circumcisions they had seen in 2008. In the practices which were sure and checked in their archives, the prevalence was higher. There may be some underestimation among the practices which did not check. On the other hand, among the practices which were not sure but made estimates, there seems to be some overestimation. Other reasons for underestimation are that circumcised women are more likely to go straight to second-line healthcare (gynaecologists), leading to a higher prevalence in gynaecological practice.

Important recommendations are to train midwives to recognise circumcision and the application of the existing position statement on female circumcision, because 39% of the midwifery practices saw at least one woman with FGM in 2008. Midwives have an important educational task in the prevention of FGM in the girls they deliver.

Finally, based on this study and even after taking account of over-reporting, we can only conclude that the prevalence of FGM is much lower than expected. In order to obtain exact prevalence figures in the near term, we recommend that a prospective study be carried out in which midwives directly record what they see. In addition, it is important to register how many circumcised women are seen in second-line healthcare by gynaecologists.

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1 Introduction

At the request of the Ministry of Health, Welfare and Sport (VWS), the Netherlands Organisation for Applied Scientific Research (TNO) conducted a brief survey of the prevalence of female circumcision (FGM) in midwifery practice. Because it is not possible in the Netherlands to examine the genitalia of women and girls for mutilations without medical cause, pregnancy is the obvious moment to examine women to see whether or not they have been circumcised. The majority of pregnant women come into contact with a midwife during pregnancy. In 2006, 75% of all pregnant women received initial obstetric care from a midwife. Only 23% went directly to second-line health services – i.e. a gynaecologist – to monitor their pregnancy. The remaining 2% were monitored by obstetricians. In 2006, 10.5% of second-line cases were transferred to first-line care after confinement (Netherlands Perinatal Registry – PRN – 2006). These figures show that a large proportion of all pregnant women come into contact with midwives. So in order to learn something about female circumcision (FGM) during pregnancy, midwifery practice is a good place to start. The prevalence of female circumcision (FGM) in midwifery practice must not be confused with the total prevalence of FMG among fertile women and girls in the Netherlands. It tells us something about prevalence among women of child-bearing age but says little about prevalence among young girls.

This report first considers prevalence research in the countries of origin, followed by prevalence research in Europe and the Netherlands. Finally, the results of the current study are described, followed by a discussion of the results, conclusions and recommendations.

2 Prevalence research in the countries of origin

The prevalence of female circumcision (FGM) in the countries of origin of the population groups within which women are circumcised has been generally known since the 1990s. Previously, such knowledge had to be based on estimates which often deviated strongly from the actual figures. Since the ICPD (International Conference on Population and Development) in 1994, organised by the UNFPA, the subject has been a fixture on the international agenda and increasingly on national agendas. Prevalence figures are becoming ever more reliable. In many countries, National Demographic Health Surveys (NDHS) are carried out every five years which include questions about FGM. These show that the prevalence of circumcision among women and girls is falling only very slowly. By repeatedly measuring prevalence, it can be seen whether preventative efforts, such as IEC (Information, Education and Communication), are having the desired effect. If we look at prevalence in the countries of origin of a few large groups of refugees in the Netherlands, we see the following picture.

In Egypt, the most recent NDHS was held in 2005 (EDHS 2005). For the first time, this included questions to mothers about the circumcision of their daughters – either already performed or planned. Based on that information, the prediction is that prevalence will fall in Egypt. In 1995, 97% of married women between 15 and 49 were circumcised, whereas in 2005 the figure was 96%. Currently, 80% of girls aged between 15 and 17 are circumcised and of girls who are now under the age of 3, only 60% will be circumcised by the age of 18, based on the answers of the mothers in this survey.

In Somalia, no NDHS has ever been held. The last national survey was carried out by the ministry of health in 1993, which produced a result of 96% prevalence. A study by Care International in Somalia in 1999 found that 91% of women had been infibulated and that 9% had undergone a milder form of circumcision. A recent study by UNICEF assumes a prevalence of 95% in Somalia.

The most recent NDHS in Ethiopia was held in 2005 and found a prevalence of 73%.

3 Prevalence study in Europe and the Netherlands

In Europe, the prevalence of female circumcision (FGM) among refugees from high-risk areas has never been properly studied. It is generally assumed that the prevalence of female circumcision (FGM) in Europe corresponds to the prevalence in the country of origin. FORWARD in the United Kingdom, together with the City University Department of Midwifery (London) carried out a prevalence study for England and Wales based on the 2001 census and the number of refugees (Dorkenoo, 2007). As part of this study, they made an estimate based on the prevalence figures in the countries of origin and the number of migrants from high-risk areas.

In her dissertation, Els Leye describes estimates made in a number of European countries (Belgium, Spain, Sweden, UK, Italy), similarly based on census data and prevalence in the countries of (Leye, 2008).

A Swedish study found a prevalence of 68% (n=254) in reply to a questionnaire circulated among African women from high-risk countries and a prevalence of 62% (n=39) in a clinical survey among the same group. Among Somali women the prevalence was 91%, among Ethiopian and Eritrean women it was 96% and among other African women 0% (Kangoum, 2004).

However, it is very much open to question whether the prevalence among the younger generation in the country of reception is indeed the same as the prevalence in the country of origin. The population which migrates or flees might already have a different prevalence in the country of origin because often it is drawn from the urban population, in which, generally speaking, prevalence is already lower. Moreover, prevalence often varies significantly from region to region in the countries of origin and refugees may come from areas where prevalence is low. In addition, it may be expected that, thanks to all the efforts made in Europe to end the practice, prevalence there is falling.

The total prevalence of female circumcision (FGM) has never been studied in the Netherlands either. In 2007, Pharos (national knowledge and advisory centre on refugees, migrants and health) estimated the number of girls at risk of being circumcised, based on data from Statistics Netherlands (see table 1).

Table 1 Girls at risk of being circumcised in the Netherlands

Country of origin	Prevalence	Number of men	Number of women total (2007)	Number of women 0-20 (2007)
Djibouti	95%	69	102	49
Egypt	97%	11966	7300	3971
Eritrea	90%	457	469	169
Ethiopia	90%	5614	4840	1803
Guinea	80%	1956	963	455
Guinea-Bissau	50%	184	123	47
Mali	90%	116	120	61
Sierra Leone	85%	4164	1814	760
Sudan	90%	4170	2453	1122
Somalia	98%	10124	8794	4077
Total				12514

Source: Statistics Netherlands 2007

This table shows the 10 countries in which girls are at the greatest risk of being circumcised.

Only women resident in the Netherlands are shown under the number of women, including girls aged 0-20. The girls aged 0-20 are also shown separately, but should therefore not be added to the total number of women.

In 2005, the Municipal Health Services in Tilburg and Amsterdam made an estimate based on interviews with healthcare personnel, from which they concluded that approximately 50 girls were circumcised annually. This estimate was based on very limited data and must be treated with great caution (RVZ 2005).

In the Netherlands, the prevalence of female circumcision (FGM) in midwifery practice was explored over a period of twelve months (October 2005-October 2006) as a graduation topic by 3 students at the Midwifery Academy of Amsterdam (VAA). The prevalence found was 0.3%. The students also investigated policy with respect to female circumcision or FGM in midwifery practice (v. Asperen et al. 2008). At the time of the study, a position statement on circumcision among girls and women was being developed by the Dutch Organisation of Midwives (KNOV). This position statement was adopted in 2007 and it is now applied in midwifery practice.

4 Retrospective study into the prevalence of female circumcision (FGM) in midwifery practice in 2008

4.1 Research question

The research question for the study presented here was “what is the prevalence of female circumcision (FGM) in midwifery practice among women who are in the care of a midwife for pregnancy, childbirth and/or puerperium?” A previous research question into policy in midwifery practice was not included in this study.

4.2 Research method

A retrospective prevalence study was chosen in order to quickly gain a picture of the prevalence of FGM. In a study like this, interviewees consider how often they have seen circumcised women during a particular period in the past. It was not feasible to retrieve personal data because circumcisions are not noted in the National Midwifery Registry. As a result, it is also difficult to establish the countries of origin of the women because until now that information was not recorded either. In retrospective research, the data is less precise because the respondents often base the information they provide on their memories. In order to create as reliable a picture as possible, the respondents were asked whether they were sure of their answers and whether they had checked them in their archives. Checking in the archives was not made a condition for participation because this would presumably have negatively affected the response.

Because midwives are known to be overloaded, the questionnaire was kept very short. In this way, we hoped to generate the highest possible response. We asked how many women the midwifery practices had in their care in 2008, and how many circumcisions they had seen. If they were unsure of the number, they were asked what their upper and lower estimates were. Where the number was not noted, an average of the estimates was taken as the prevalence.

The data were analysed with the help of SPSS 14.0. The chi-square test was used in testing the proportions. All statistical tests were two-sided and p-values <0.05 were regarded as statistically significant. The reliability interval was determined in accordance with Fleiss, J.L. (1981): "Statistical methods for rates and proportions", formulas 1.26 and 1.27, with a correction for a finite population.

Letters were sent out to all 513 midwifery practices in early February 2009. The letter set out the reasons behind the study and included a short questionnaire. In the second week of March, reminder letters were sent out to those who had not replied. All practices which had failed to complete the questionnaire correctly or who had not responded were contacted by phone.

4.3 Results

Response

We received completed questionnaires from 478 practices. This represents a response of 93.2 %. The practices were very well distributed across the country. There were no areas where the response was significantly lower. The large cities, too, were well

represented. When the practices which had not responded were phoned, it turned out that the assumption that not returning the questionnaire meant they had seen no circumcisions was incorrect. A number of the practices contacted by phone had seen circumcised women in 2008.

Of the 478 practices which responded:

- three practices did not want to reveal the number of care cases (=clients); one of them had seen a circumcised woman in 2008
- three practices had recently started up and had had no women registered with them in 2008
- one practice failed to enter the number of clients
- one practice did not know the number of clients and had no time to look it up; this practice had not seen any circumcisions in 2008

These eight practices were not included in the analysis. Eventually, the analysis was based on 470 practices (91.6 %).

Prevalence

In 2008, these 470 practices monitored a total of 145,492 women during pregnancy, childbirth or puerperium and of those women, they saw 470 who had been circumcised. That represents a prevalence of 0.323% (95% Confidence Interval: 0.310%-0.337%) for the entire population in these midwifery practices, or over 3 circumcised women per 1000 pregnant women. The mean number of circumcised women per practice was 2.5 (SD 2.5), the median was 2 and the most common value (mode) was 1.

183 practices (39%) had had circumcised women in care and 287 had not (61%). Table 2 shows that 70% of the practices saw 1 or 2 circumcisions and 6% saw 8 – 15. The practices with a lot of circumcisions were located in the big cities or close to asylum seekers' centres. In Amsterdam, for example, midwives saw 48 circumcised women out of 10,523 clients. This equates to a prevalence of 0.456, in other words 4 to 5 circumcised women per 1000 pregnant women.

Table 2: number of circumcised women per practice

Number of circumcised women per practice	Number of practices	%
1	82	45
2	45	25
3	18	10
4	8	4
5	16	9
6	1	0
7	2	1
8	4	2
10	5	3
15	2	1
Total	183	100

Of the 183 practices which indicated that they had had circumcised women in care, 59 (32%) were not sure about the precise number and 124 (68%) were sure (table 3).

Table 3: certainty regarding number of practices with circumcised women in care

Certainty regarding number	Practices with circumcised women in care?		Total
	No	Yes	
Not sure	3	59	62
Sure	52	124	176
Total	55	183	238

In the 124 “certain” practices, the number of circumcised women was checked in the archives significantly more often than in the 59 “uncertain” practices: 51 certain practices (41%) checked in the archives versus 2 uncertain practices (3%) ($p < 0.0001$). The prevalence in “certain” practices was 0.6%: 244 circumcised women out of 42,637 clients. The prevalence in “uncertain” practices was 0.9%: 226 circumcised women out of 25,261 clients. This difference is significant ($p < 0.0001$).

The prevalence within the “certain” practices was 0.8% (132/16,270) for practices which checked their archives. This is higher than the prevalence of 0.4% (111/26,017) for “certain” practices which did *not* check their archives. This difference, too, is significant ($p = 0.001$).

Table 4. Total number of reported circumcised women in relation to certainty about number and whether they checked their archives

Total number of reported circumcised women				
	in practices which checked their archives	in practices which did not check their archives	in practices for which it is not known whether they checked their archives	total
in practices which were certain about numbers	132 (28%)	111 (24%)	1 (0.2%)	244
in practices which were uncertain about numbers	5 (1%)	220 (47%)	1 (0.2%)	226
total	137 (29.1%)	331 (70.4%)	2 (0.4%)	470

Of the practices which did not check their archives, 5 stated that there was no need to: “I just know” or “we are a small practice with few ethnic minorities.” When midwives were not certain of the numbers and made estimates, it seems that the estimates turned out higher – there appears to be overestimation. However, in the practices which indicated that they were certain of the numbers, the prevalence proved significantly higher if they actually went and checked their archives. So within the group of “certain practices”, there may be a degree of underestimation when they did not check their archives.

The practices which were not certain about the number of circumcised women indicated a minimum and maximum number of circumcisions. The sum of the minimum numbers in this group was 142 and the sum of the maximum numbers was 338. The other 124 (68%) 'certain' practices saw a total of 244 circumcised women. In this way, we come to a margin of $244+142=386$ **minimum** and $244+338=582$ **maximum**. This maximum number is 112 circumcisions higher than the prevalence of 470 based on the prevalence figures entered by midwives on the forms or an average of the minimum and maximum.

Type of circumcision

In the questionnaire, midwives were able to distinguish between two types of circumcision: 1. infibulation / pharaonic circumcision or 2. all other types. The number 3. indicated that they did not know the type of circumcision. This very crude distinction was used because no clearer distinction may be expected on the basis of memory. This would be possible only if details were registered in a prospective survey.

The number of infibulations seen by midwives was 188 (40%) and the number of 'other types of circumcision' was 237 (50%); 36 times (8%) respondents indicated that the type of circumcision was not known and 9 times (2%) no figure was entered. In many cases, a comment was added to the effect that the woman had given birth before. Initially there had been infibulation, but the woman had been opened at that time. In such cases, the type of circumcision was correctly registered as infibulation.

4.4 Discussion

In 2008, a total of 184,660 women gave birth in the Netherlands (Statistics Netherlands 2009). For this survey, we gathered data about 145,492 women who were pregnant or had given birth, in other words about 79% of the total number of women who gave birth in 2008. If 79% displayed 470 circumcisions, we might assume that 100% of pregnant women would display 595 circumcisions. This may be an underestimate because it is not known how many pregnant women were vaginally inspected by a midwife during pregnancy. The study by midwifery students referred to above (data for Oct 2005 – Oct 2006) showed that 36% of practices did not ask clients whether they had been circumcised. Where they did ask and a woman indicated that she had been circumcised, 60% of the practices inspected the vulva. Therefore, a large number of circumcisions could still have been missed. Another reason why the number of circumcised women may be higher in the population studied is that some pregnant women would have been referred directly to second-line health services (gynaecologists) before being inspected by a midwife. There may also be some underestimation because circumcised women are more likely to go directly to a gynaecologist. Some of those seen by gynaecologists due to referrals and complications will have been included in this report because in those cases their midwives presumably specifically asked about circumcision earlier in the pregnancy. According to the position statement of the KNOV, this is what they are now supposed to do. At the time of the students' survey, this position statement had not yet been issued. The midwifery students investigated the referral policy due to circumcision. This showed that 50% of practices did not refer circumcised women to a gynaecologist: 8% did, 28% sometimes did and 14% did not know whether they would or not if they had a circumcised client.

In view of the reasons given above it is therefore likely that 595 is the lower limit. If we limit the calculation only to midwifery practices, we come to the following figure: if 91.6% of midwifery practices displayed 470 circumcisions, then registration by 100% of midwifery practices would yield 513 circumcisions. What do these numbers mean for the prevalence of female circumcision (FGM) in the Netherlands? Based on provisional figures from Statistics Netherlands for 2008, we know exactly how many women from the high-risk countries gave birth in 2008. Only countries where more than 40% of women have been circumcised are included in the list.

Table 5 Live births by mother's country of birth, 2008 ¹⁾

Cultural background of child	Total giving birth in the Netherlands ²⁾ in 2008	% FGM in country of origin ³⁾	Circumcised women based on % in country of origin
Burkina Faso	4	72.5%	3
Ivory Coast	41	41.7%	17
Djibouti	3	93.1%	3
Egypt	269	95.8%	258
Eritrea	35	88.7%	31
Ethiopia	177	74.3%	132
Gambia	9	78.3%	7
Guinea-Bissau	4	44.5%	2
Liberia	58	45%	26
Mali	0	91.6%	0
Mauretania	4	71.3%	3
Sierra Leone	131	94%	123
Somalia	592	97.9%	578
Sudan	173	90%	156
Chad	4	44.9%	2
Total	1504	89%	1341

¹⁾ Provisional figures ²⁾ source: Statistics Netherlands 2009 ³⁾ source: WHO 2008

In total, 1504 women from high-risk countries gave birth. Based on the percentages for FGM in the countries of origin, 89% of women from the high-risk countries would have been circumcised, in other words almost 9 out of 10. If just as many women had been circumcised as in the countries of origin, a minimum of 1341 circumcised women would have given birth.

Midwives saw 79% of the 1504 women from high-risk countries who gave birth, in other words 1188 women. Of those, 470 were circumcised, which is 40% or 4 out of 10. This is less than half compared to the countries of origin – much lower than is generally assumed.

In the Swedish study, the Somali, Ethiopian and Eritrean women were circumcised and not the women from the rest of Africa. If we add these three groups together in table 5 and leave the others out of consideration, the percentage becomes very different; $79\% \text{ of } 578 \text{ (Somalia)} + 132 \text{ (Eritrea)} + 31 \text{ (Ethiopia)} = 79\% \text{ of } 741 = 585$. Given 470 circumcisions observed, that would mean that 80% of the high-risk group had been circumcised. We certainly cannot draw any hard and fast conclusions from this, as there are simply too many uncertainties. Due to the retrospective nature of the study, the margins in what midwives remember are great. We saw this in the minimum and maximum numbers which uncertain practices reported and in the higher prevalence among certain practices which checked their archives.

As mentioned previously, in spite of all efforts, we may still have missed a large proportion of circumcised women because midwives do not always ask whether a woman has been circumcised.

Another factor which may lead to a lower actual prevalence than in the country of origin is that the group of refugees/migrants coming to the Netherlands is not a cross-section of the population in the country of origin.

In the case of Egyptians, it is the urban population which is more likely to emigrate to the Netherlands. In urban areas, the prevalence of FGM is notably lower than in the countryside. This may be the case for other countries too.

The only way to be sure about the prevalence of FGM among pregnant women in the Netherlands is to record the following information for each woman from a high-risk area examined: whether she has been circumcised, which type of circumcision she has undergone and at what age. The medical professional should also note whether she has since been opened (defibulation). The defibulation may have been carried out during a previous birth or at her own initiative – this too needs to be recorded. This information will also make clear whether women who had previously given birth in the Netherlands were sewn up again after the birth, or whether they may have had themselves sewn up or reinfibulated elsewhere. By asking midwives retrospectively what they have seen, as in this study, we can only make an estimate of the number of FGMs.

5 Conclusion

The subject of female circumcision has captured the attention of midwives. We can conclude this from the huge response to this survey (93%). Four out of ten practices monitored circumcised women in 2008 (39%). FGM is observed in all the big cities, but also in many smaller towns across the country. There is a small group of practices (6%) which have a lot of experience because they see 8 – 15 circumcised women per year, but the large majority only see one or two circumcised women per year.

The majority of practices which indicated that they had seen circumcised women were certain about the number of circumcisions they had seen (69%). The prevalence in the group of uncertain practices which made estimates proved to be higher than the group which were certain. Within the group of practices which were certain, the prevalence turned out higher when they checked their archives. Partly for that reason, the prevalence found in the midwifery practices is more likely to be an underestimate than an overestimate.

In 8% of cases, midwives did not remember which kind of circumcision was involved, but in the other cases they were able to distinguish between infibulation (40%) and a different type of circumcision (50%). Respondents regularly noted that infibulations had been reversed at a previous childbirth and a few times that the woman had been defibulated even before the pregnancy.

Fewer than 20% of pregnant women are not seen by a midwife during pregnancy. However, in view of the absence of data about routine inspections of the genitalia in pregnancy by both midwives and gynaecologists, we cannot conclude whether the prevalence of female circumcision is likely to be higher in this group or not. This may be the case, because some circumcised women go directly to a gynaecologist.

Based on provisional figures from Statistics Netherlands for births in 2008, we know that 1504 women from high-risk groups gave birth in 2008. A calculation based on the circumcisions found in this survey yields a figure of 40% circumcised women in this group. Based on the data collected in this survey, we can scarcely conclude otherwise than that the prevalence is lower than expected.

6 Recommendations

In order to obtain reliable figures about female circumcision in midwifery practice in the short term, a prospective prevalence study would need to be carried out. In such a study, midwives would record what they see, along with personal details of the woman, such as country of origin, age, parity and date of arrival in the Netherlands. Moreover, they would then be able to accurately record the type of circumcision. They could also record whether a woman had been sewn up again after a previous birth.

In the future (the target date is 2010), midwives will record FGM in the National Midwifery Registry (LVR). Training and research will be required in order to ensure that this is done with due care and that the data become available and are analysed. Those data will not become available earlier than in the course of 2011. Because so many midwives deal with FGM (39% in 2008), it is very important that they all receive medical training in policy with respect to FGM. To date, training has been given to midwives about identifying and raising FGM as an issue in some pilot regions (in the six big cities). In addition, there is a real need for midwives to increase their medical knowledge about different types of circumcision and about policy during childbirth and post partum. This is particularly important for the method of episiotomy and stitching. The study by the VAA students referred to above had already revealed that there is a good deal of confusion on this issue. In addition, it is important that midwives learn to raise FGM as an issue in order to prevent circumcision of the girls they have delivered.

It is also important that the prevalence of female circumcision (FGM) in gynaecological practice is investigated because it may be higher than in midwifery practice. There are indications that circumcised women are more likely to go to a gynaecologist at the start of pregnancy due to the problems they foresee in childbirth.

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