

Egg and sperm donation in the UK, 2012–2013

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Introduction

The Human Fertilisation and Embryology Authority (HFEA) is the independent regulator of fertility treatment in the UK. Part of our role is to collect data about every treatment cycle performed in licensed fertility clinics. This information is held on the HFEA Register and, each year, around 60,000 new treatment cycles are recorded and validated.

We publish regular reports setting out trends and figures about fertility treatment in the UK using the data held in our Register. This report is concerned with donors of sperm, eggs, embryos and their recipients.

Most people seeking in vitro fertilisation (IVF) treatment are couples using their own eggs with their partner's sperm. However, for a significant minority of patients, their only chance of conceiving a child is by using donated sperm, eggs or embryos. Fertility treatment using donated gametes (eggs and sperm) or embryos are also sought by single women, women with female partners and those seeking a surrogacy arrangement. Because of donation, these people are given the opportunity to have the family they want.

A donor is defined as a person providing gametes or embryos for use by others in fertility treatments. Although donors are the genetic parents of children created using their gametes or embryos, if the treatment is provided in a licensed centre in the UK, they are not the legal parents. Children conceived on or after 1 April 2005 can apply for identifying information about their donor when they turn 18. Potential donors receive counselling to ensure they are fully aware of the implications and the possible impact on themselves and their families. Advice for those considering treatment with donated sperm or eggs or thinking about donating is available on the HFEA website www.hfea.gov.uk/egg-and-sperm-donors.html.

Background to this report

In 2011, the HFEA held a public consultation '[Donating sperm and eggs: have your say](#)' seeking opinion on four key issues:

- the changing landscape of donation
- donor compensation and benefits in kind
- family limit for donated eggs or sperm, and
- family donation.

At the time there was a perceived shortage of donors in the UK, which had resulted in long waiting lists and patients travelling abroad for treatment, one of the goals of the consultation was to find ways to improve numbers of new donors registering and maximise the use of their gametes.

Over 1,000 members of the public responded to our online questionnaire. We also held meetings with academics and professionals and ran focused engagement with donors, parents, patients and donor-conceived people.

As a result of this consultation, to address concerns about treating donors fairly and valuing their contribution, as well as the need to retain donors and keep paperwork to a minimum, new limits for donor compensation were introduced in April 2012. Moving away from a system of out of pocket expenses and a loss of earnings allowance capped at £250, clinics are now able to offer donors compensation which better

reflects their expenses. For sperm donors the limit is a fixed sum of £35 per clinic visit including expenses, and for egg donors the limit is a fixed sum of £750 per cycle of donation, including expenses.

In December 2013 and January 2014 we ran an online survey for clinics which provide donation services to give us feedback about the impact of the new policies. We asked for their thoughts on how the new donation policies were working in practice, and how they may have affected their clinic's practice. We sought responses on questions such as how they recruited donors, whether they had a waiting list for treatment using donated gametes, the motivations of their donors and whether they needed to import donors to meet demand. We received responses from 24 clinics, around a third of the total performing donation services. Obviously their experiences varied, and may not be representative of the sector as a whole, but we identified some common themes which are discussed in this report.

When assessing the impact of the changes in policy we are not only interested in the numbers of new donors registering, but also their characteristics. The Donors section (page X) covers their age, ethnicity, location, whether they had their own children already. The Recipients section covers not only the number of women seeking treatment, but the type of relationship they are in, age, type of treatment sought and the funding source.

This report presents important figures around donation by drawing together information from our Register and our clinic survey to act as a preliminary assessment of the impact of the policies we introduced in 2012. We feel it is important to do this now, with two years data, but we will also perform a further analysis of the impact of the policies in a few years time.

The key findings presented in this report are as follows:

- The number of patients and treatments cycles performed using donated gametes increased in 2012 and 2013. This means that more couples and women are having the chance to create the family they want.
- The number of newly registering sperm donors increased in 2012, but decreased again in 2013. The number of newly registered non-patient egg donors increased in both years.
- Around one third of clinics performing treatment with donated gametes are in London or the South East.
- The NHS funds a smaller proportion of fertility treatments using donated gametes than for all fertility treatments.

Terms and acronyms used in this report

Term/acronym	Meaning
Donor insemination (DI)	Broad term covering fertility treatment using donor sperm where fertilisation takes place inside a woman's body. Donor sperm is introduced to either the woman's uterus (intra uterine insemination), cervix (intracervical insemination), or vagina (intravaginal insemination).

In vitro fertilisation (IVF)	Where a woman's eggs and a man's sperm are collected and placed together in a laboratory to achieve fertilisation outside the body.
Intra-cytoplasmic sperm injection (ICSI)	A variation of IVF in which a single sperm is injected directly into a woman's egg. Using ICSI means that as long as some sperm can be obtained (even in very low numbers), fertilisation is possible.
Gamete	A reproductive cell, i.e. the sperm or egg.

A full glossary of terms, acronyms and abbreviations is available on our website at <http://www.hfea.gov.uk/glossary.html>.

Methodology

This report presents key information about treatment cycles using donated gametes and embryos, newly registered donors and donor recipients. The report is mainly focussed on data from 2012 and 2013, but data from 2004 is available on the accompanying datasheet [LINK](#).

How we gathered the data

Clinics are required by law to provide us with information about all licensed fertility treatments they carry out. We hold this information on our Register, which contains information about fertility patients, the treatment they received and its outcomes.

Understanding the data analysis and associated limitations

The information that we publish is a snapshot of data provided to us by licensed clinics at a particular time. The figures supplied in this report are taken from our Register data as at 6 October 2014. Clinics are required to regularly audit data and are asked to confirm its accuracy six monthly as part of our regular publication.

The number of new donor registrations has not been verified with the clinics. It is also possible that some cycles are erroneously marked as donor cycles. As clinics may submit data relating to past cycles at any time, the figures published here may differ slightly to those published before or in the future.

New donor registrations

'New donor registrations' show the number of people who have registered as donors with us. People who wish their sperm or eggs to be used in the treatment of others are registered at the licensed clinic where they donate their gametes. This registration information is then submitted to us within five days of their sperm or eggs becoming available for use and after consent and screening

The number of new donor registrations does not necessarily reflect the amount of donated sperm or eggs available for use. This is because each donor may specify the number of families (up to a maximum of 10) he or she is willing to help create. The figures provided in this report therefore include some donors who wish to help create one family only, as well as those who wish to help create more than one. Clinics must check the number of families that have already been created before using that donor for treatment to create another family. Donors who want to create only one family may be donating to family or friends – these are called 'known donors'.

In addition, the number of new donor registrations does not reflect the use of donor gametes in treatment. Donors may go on to donate in future or their gametes may be used at other clinics. Donor eggs, sperm or embryos may also be stored and used some time after the donor registered or donated. For example, donor sperm may be reserved for use in treatment to create donor siblings some years after the first child is born. Some donors may register but never be used.

Despite these limitations, we use new donor registrations to give us an idea of the general state of donor recruitment at a given time.

The information presented in this report about the donors is taken from the form they complete when they first register. It is possible that they may have registered again, when their circumstances have changed (when they are older and may have, for example, had children of their own). For consistency, we have opted to look at their situation when they first decided to donate gametes.

Egg donation

The data on egg donation is separated into that for egg sharers and that for non-patient egg donors.

Egg sharers are women seeking IVF themselves who donate some of their eggs from a treatment cycle to up to two other women, in return for benefits in kind, usually a reduction in the cost of treatment.

Non-patient egg donors are women who donate eggs but are not involved in fertility treatment themselves. Non-patient egg donors may know the recipient involved, for example a friend, sister or other family member, but many do not.

Women considering donating their eggs should discuss the potential risks to their health and the possible impact on their future fertility, with their clinic.

Revisions policy

No revisions are planned to this publication unless errors are found which will be corrected.

Report type

This is an ad hoc research report.

Accessing the data

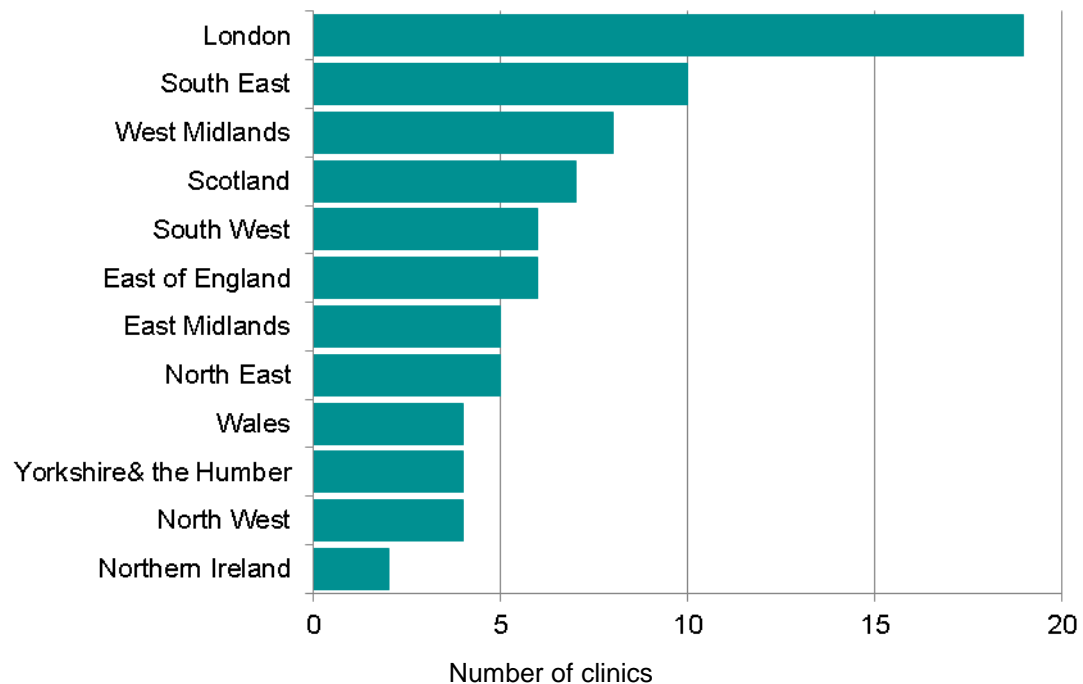
The data in this publication has been presented in a way to make it as easy to understand as possible. If you would like to access the data used to compile this report, it is available to download as an Excel file from our website [LINK](#).

Overview

How many fertility clinics performed treatment with donated gametes in the UK in 2013?

In 2013, 75 clinics licensed by the HFEA provided DI treatment and 77 provided IVF using donated eggs, sperm or embryos. This compares with 73 clinics for each in 2012. The largest number of clinics was in London (see Figure 1). A third of the clinics are located in London or the South East.

Figure 1: Number of clinics performing fresh DI or IVF with donated gametes, by region, 2013



As would be expected by the number of clinics there, London had the largest numbers of new donors registering, with around a third of new sperm and non-patient egg donors.

The North West, despite only having four clinics, registered nearly 15% of all new egg sharing donors in 2013. Northern Ireland registered none.

We know people may travel to clinics in other regions for treatment and so the higher numbers in London could be partly explained by donors and patients travelling there from elsewhere in the UK and also abroad, as well as the large population in London.

Clinics who recruit donors may opt to only use the gametes in their own clinics, or other specific clinics. Therefore the availability of gametes may vary substantially clinic by clinic.

What proportion of fertility treatment used donated gametes?

In 2013, there were 48,477 fresh IVF cycles and 4,611 DI cycles. These numbers have been increasing for over 10 years, though the rate of increase has slowed down recently.

Of the fresh IVF cycles in 2013, 5% used donated sperm, 4% used donated eggs and less than 1% used both donated eggs and sperm. Therefore, in total, just under one in ten used donated gametes. These proportions have remained broadly steady since 2012.

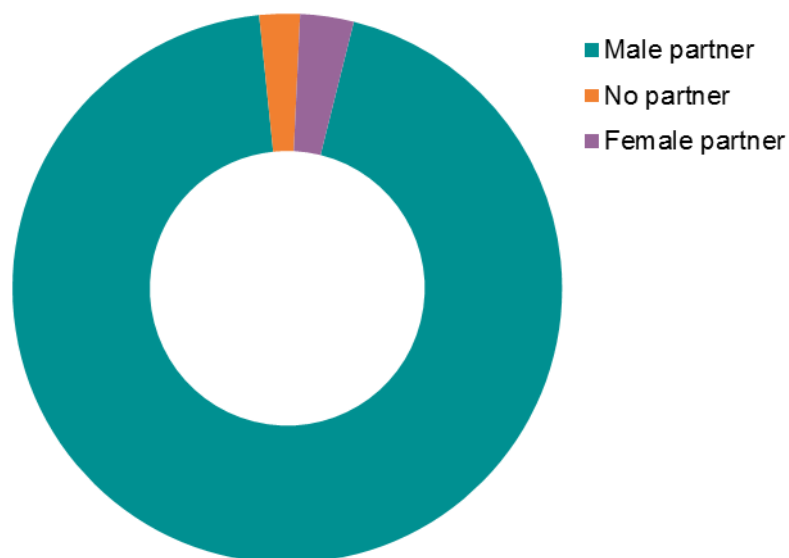
This report is primarily concerned with fresh treatments but a significant minority of IVF treatment uses gametes and embryos which have been frozen, and thawed at the time of treatment. This is particularly the case for embryo donation, where a couple may freeze embryos for several years, and donate them when they feel their own family is complete. Of the 13,353 frozen cycles in 2013, 2% made use of donated embryos.

What proportion of patients having fertility treatment were single or in a same sex female partnership?

Of the 42,721 patients accessing fertility treatment (fresh IVF and DI) in 2013, 1,015 (2%) had no registered partner and 1,342 (3%) registered with a female partner. This includes people using their own and donated gametes.

These proportions have remained broadly steady since 2012.

Figure 2: Partnership status at registration of all fertility patients receiving fresh IVF and DI treatment, 2013

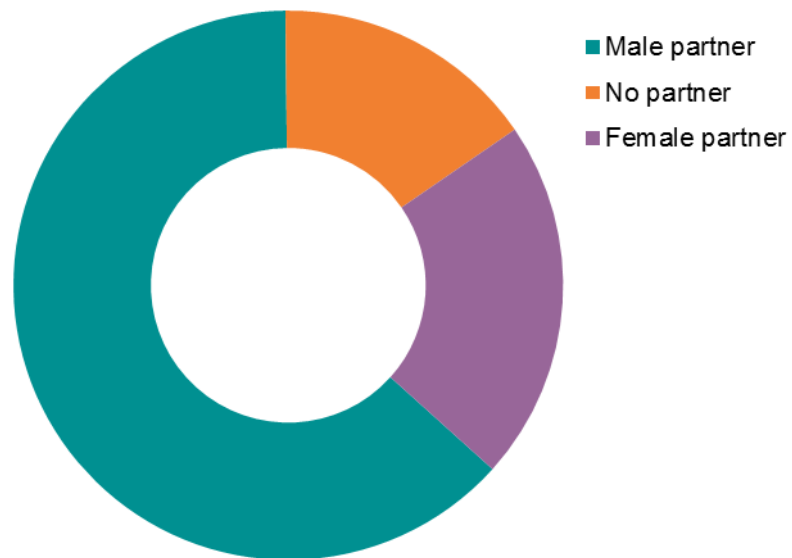


What proportion of patients having fertility treatment with donated gametes were single or in same sex partnerships?

Of the 6,300 patients accessing fertility treatment with donated gametes (again, fresh IVF and DI) in 2013, almost two thirds registered with a male partner, 15% had no registered partner and 21% registered with a female partner. Women in same sex partnerships may choose to donate eggs to each other.

This has remained broadly steady since 2012.

Figure 3: Partnership status of donor gamete treatment recipients, 2013



Key points

- Around one in 10 cycles of fresh IVF use donated gametes.
- All types of fertility treatment have shown year on year increases, including those using donated gametes.
- Almost two thirds of cycles using donated gametes are in women registering with a male partner.

Donors

Sperm donors

The majority of respondents to our survey of clinics in December 2013 and January 2014 believed that the number of sperm donors interested in donating, and actually donating, had stayed around the same since our policy changes were introduced in 2012.

Our figures from the Register show that there was an increase in the number of newly registered sperm donors in 2012 compared with 2011, but that there was a subsequent decrease back to previous levels in 2013 (see figure 5).

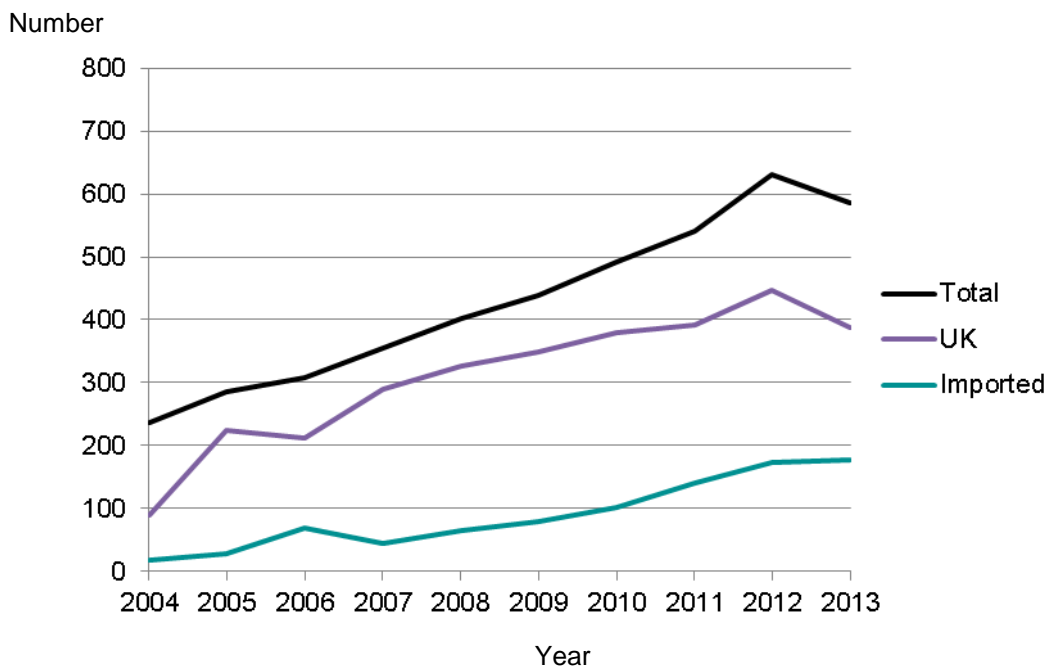
In 2013 there were 586 new sperm donor registrations compared with 631 in 2012, and 541 in 2011.

Respondents to our survey told us that the changes in donation policies had made the administration easier. However, there wasn't a good overall awareness of sperm donation and that the overseas sperm banks were an efficient source of obtaining sperm.

The figures reflect this view. The number of imports has steadily increased year on year and now forms almost a third of new registrations. Most imported sperm comes from the USA, followed by Denmark. It is important to note that this does not necessarily reflect 'popularity' of donors, but perhaps more their availability.

Some clinics reported that they import donor sperm because the cost, time and resources required to recruit donors themselves is too high when there are specialist sperm banks who can carry out an efficient and reliable service.

Figure 4: Number of newly registered sperm donors, 2004–2013



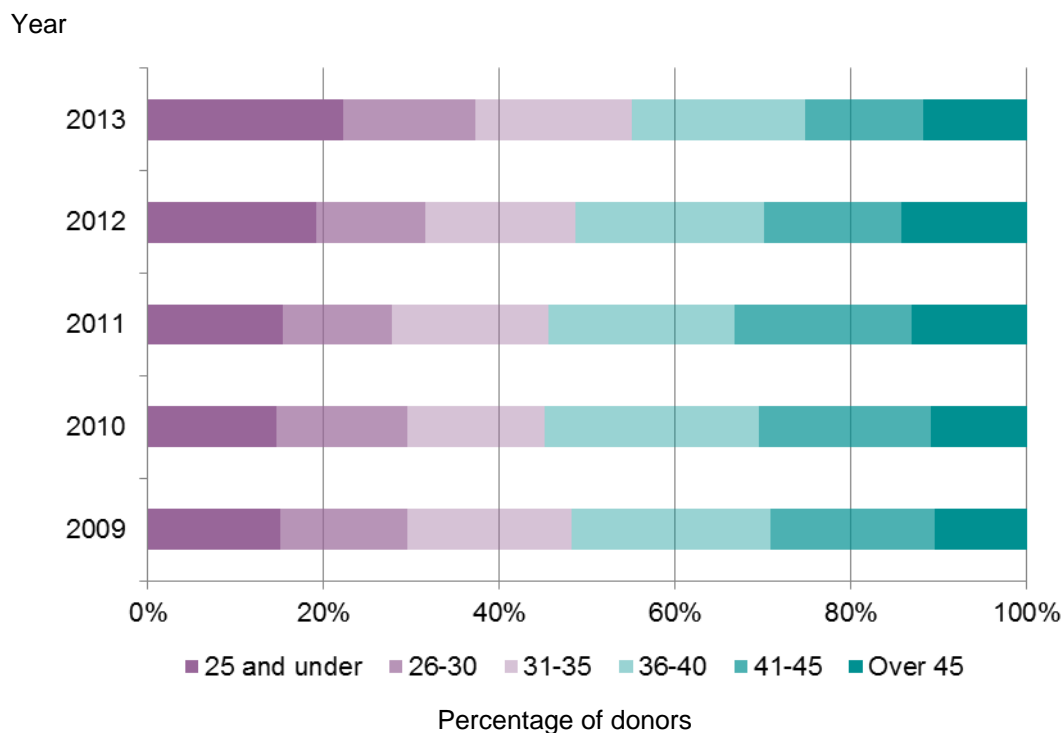
Around a quarter of newly registered sperm donors were aged under 25 and another quarter were over 40. While current professional guidelines state that sperm should not be taken from donors aged 41 or over, clinics are able to make a case by case

assessment on suitability. Donors over this age are likely to be ‘known donors’ donating to friends or family.

The age distribution of sperm donors has changed slightly over the past two years. The proportion in the youngest age group (aged 25 years and under) has increased from 15% to 22% and the proportion in the older age groups has decreased. In 2011 there were 83 sperm donors aged 25 or under, and in 2013 there were 130 (out of a total of 541 and 586 respectively).

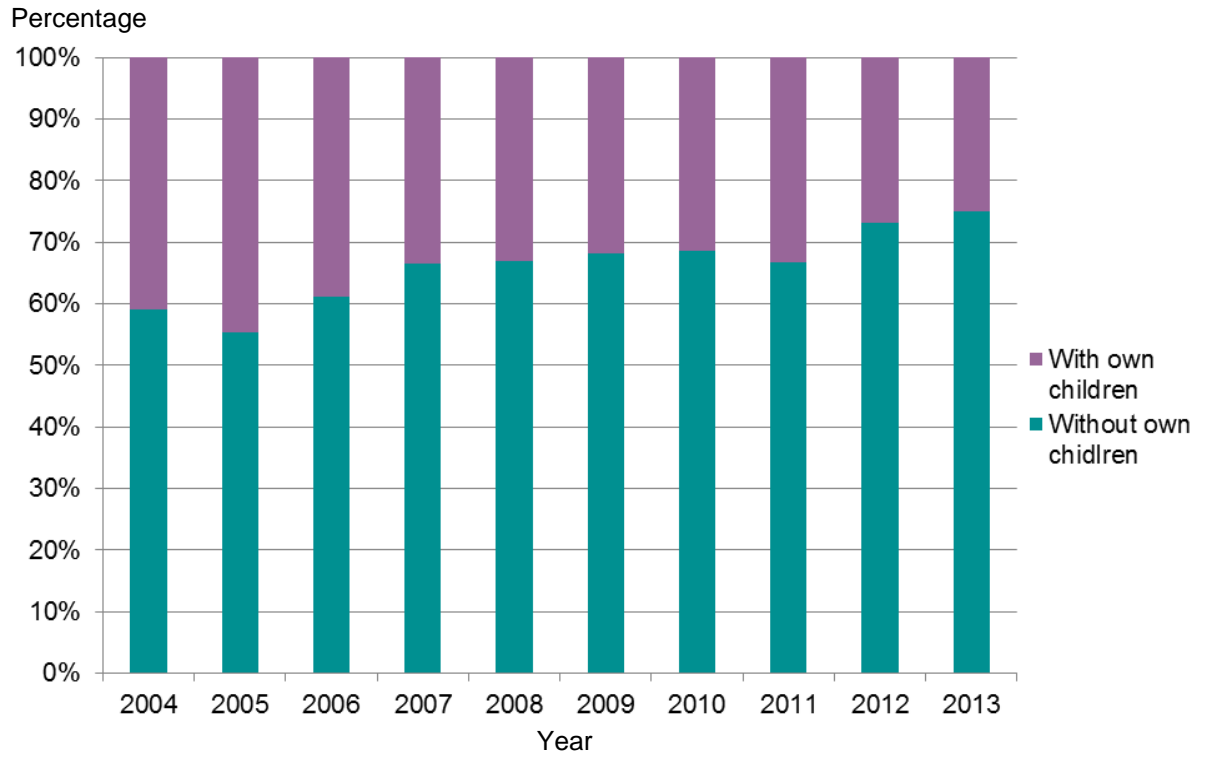
Looking closely at the 25 and under age group, around one third are aged between 18 and 21, and two thirds between 22 and 25. This proportion has remained steady between 2011 and 2013.

Figure 5: Age distribution of newly registered sperm donors 2009–2013



Of the donors whose sperm was registered for use in treatment in 2013, a quarter already had their own children; the remaining 75% did not. There has been a general trend over the past 10 years for the proportion of sperm donors without their own children to increase, as shown in Figure 6.

Figure 6: Percentage of sperm donors with their own children at the time of registration, 2004–2013



Over half (52%) of donors registered for their sperm to be used in treatment identified themselves as white British; the second largest ethnic group recorded was any other white background (31%). A breakdown is shown in Figure 7. The proportion of white British donors has declined over the past five years, while the proportion of other white backgrounds has increased. The total proportion of these two groups has remained broadly steady over these five years, at just over 80% of newly registered donors.

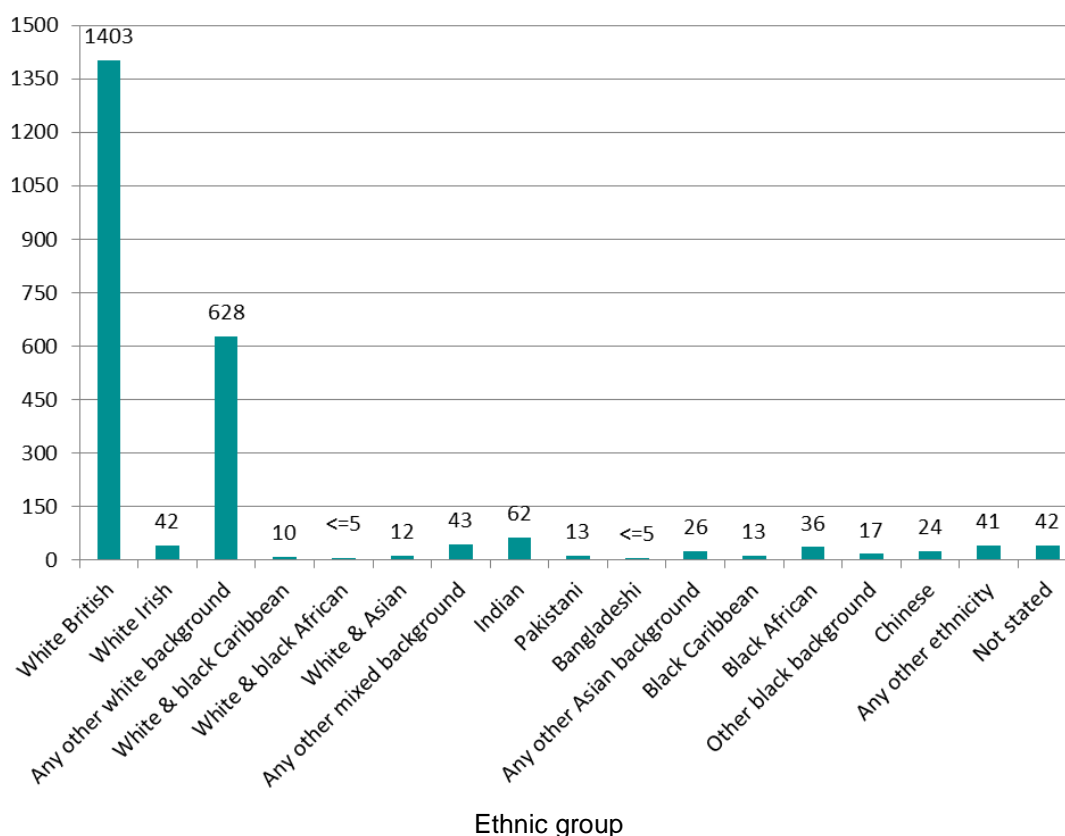
Respondents to our survey highlighted the fact that it could be difficult to get non-caucasian donors, either because of social or cultural barriers, or because the location of the clinic doesn't have a large population of the required type of donor to meet demand.

Despite this, because of the ease of importing sperm, almost half of clinics felt they were able meet the needs of their patients for ethnicity and religion.

The majority of those clinics importing donor sperm reported that they are doing so to meet the requirements for a specific type of donor; others found it was not cost or time effective to recruit donors at home.

Figure 7: Ethnic group of newly registered sperm donors, 2009– 2013

Number of donors

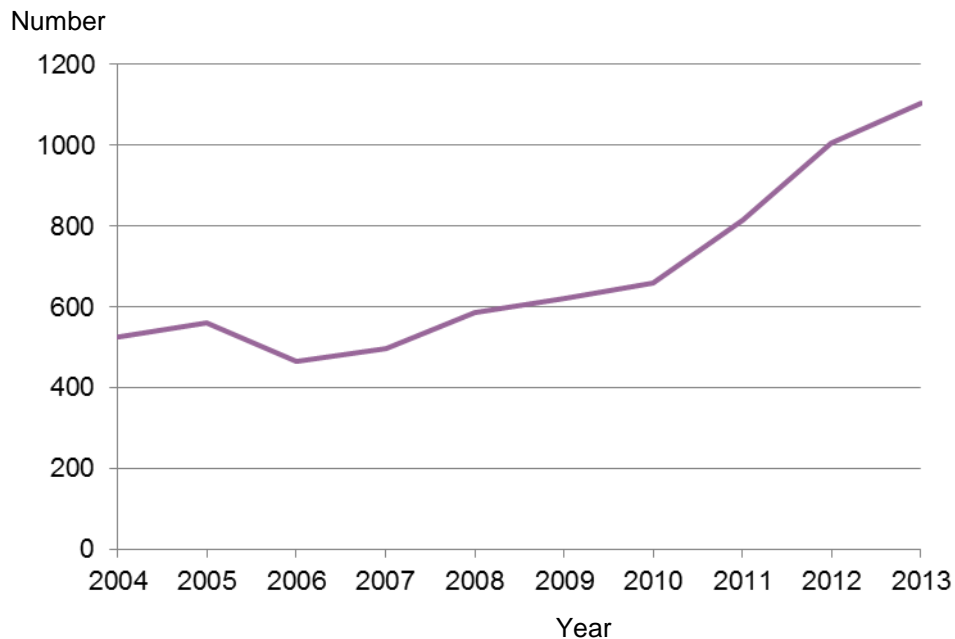


Non-patient egg donors

In contrast to sperm donation, three quarters of survey respondents said that following the new donation policies, the number of women expressing an interest to donate eggs had increased and around half reported an increase in actual donations.

This perception is reflected in the figures from our Register. In 2013 there were 1,116 new egg donor registrations, an increase on 2012 when there were 1,005 and 2011 when there were 815.

Figure 8: Newly registered non-patient egg donors, 2004–2013

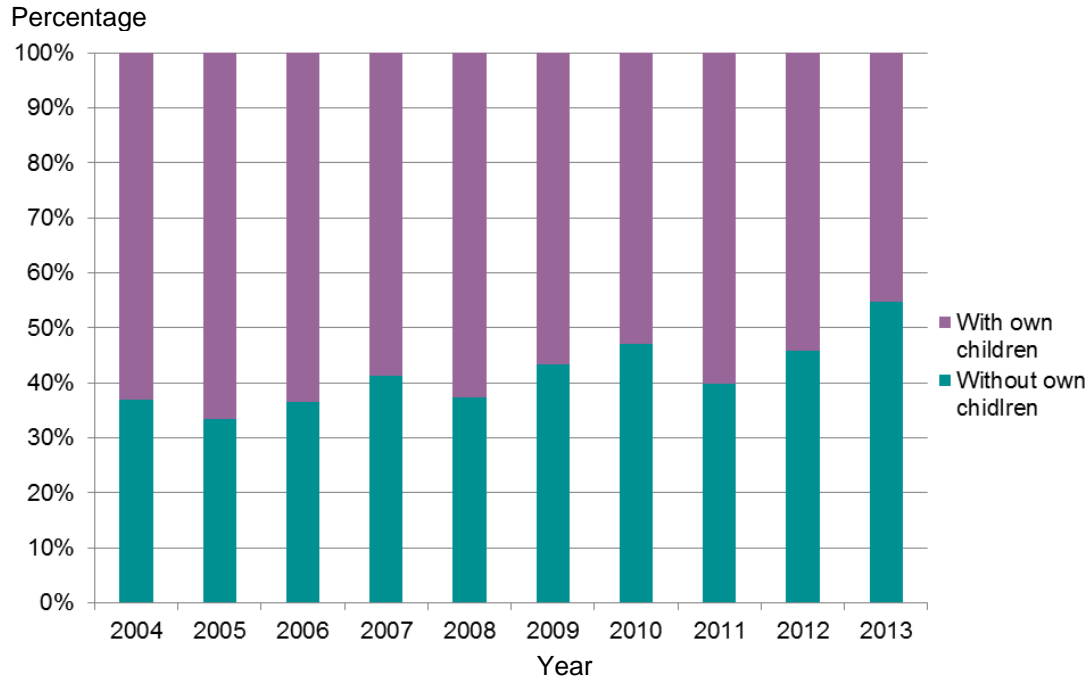


In the survey, the increase in new egg donor registrations was attributed to the increased levels of compensation, increased awareness and marketing.

Some respondents noted that while the increase in compensation might make some potential egg donors get in touch, once they were informed of what was actually involved in donating, they changed their mind.

Of the donors whose eggs were registered for use in treatment in 2013, 45% already had their own children; the remaining 55% did not. This is the first time that over half of egg donors did not already have their own children and follows the general trend over the past 10 for more women to not have their own children already.

Figure 9: Newly registered non-patient egg donors with or without own children, over 10 years 2004–2013

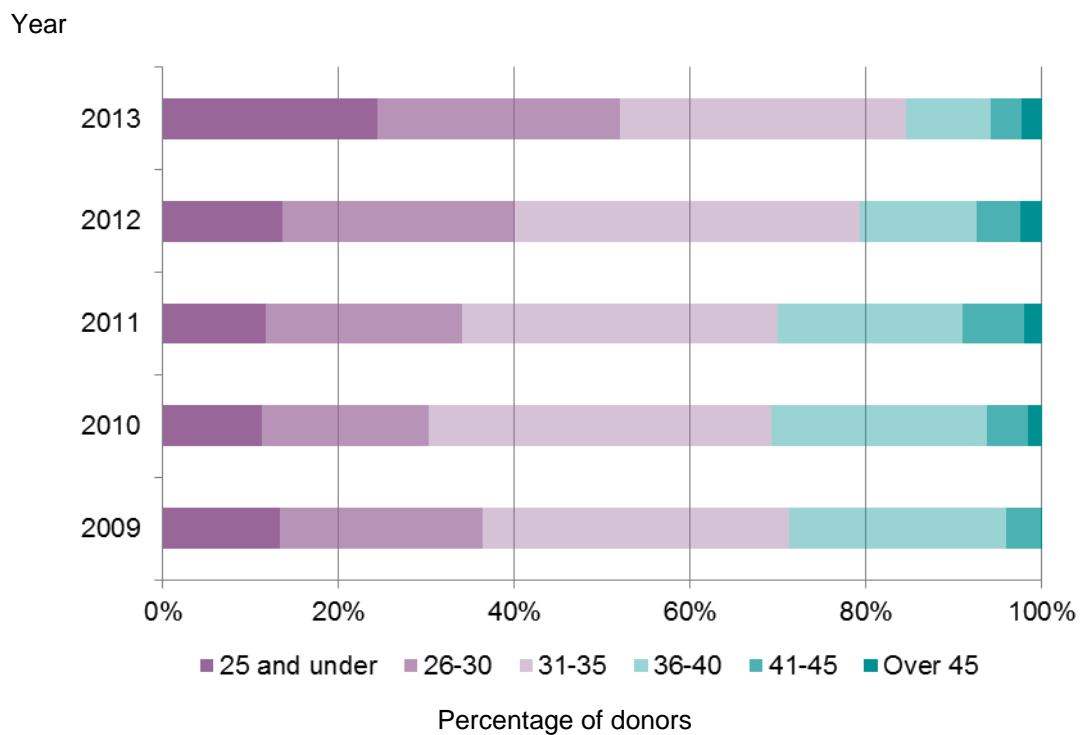


Around a quarter of newly registered non-patient egg donors were aged under 25 and nearly half were aged over 30. Current professional guidelines state that eggs should not be taken from donors aged 36 or over unless there are exceptional reasons to do so. When they are, they are likely to be 'known donors' donating to friends or family only.

The age distribution of egg donors has changed more markedly than that of sperm donors and the proportion of donors in the youngest age group, 18-25, has doubled from 12% to 24% between 2011 and 2013.

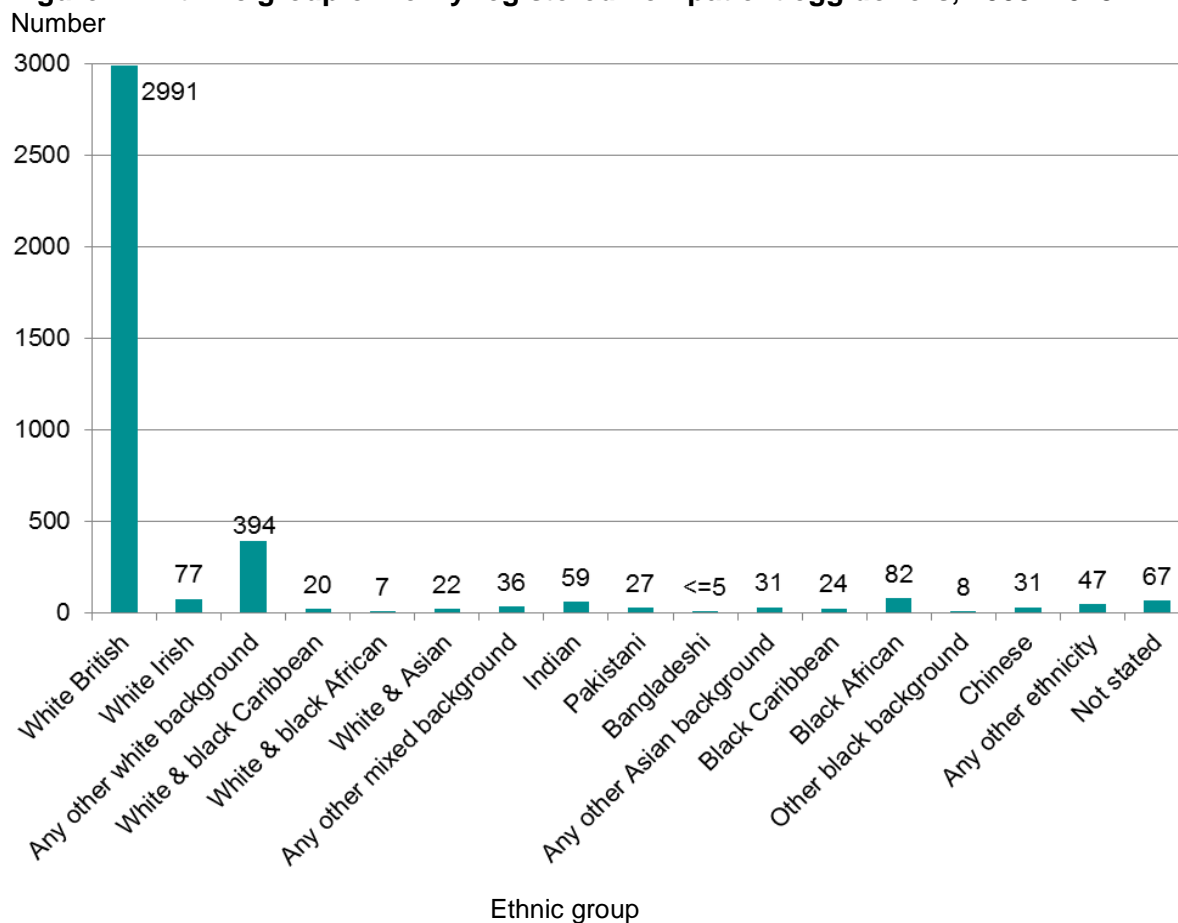
Looking closely at the 25 and under age group, under a third are aged between 18 and 21, and the remainder between 22 and 25. This proportion remained similar between 2011 and 2013.

Figure 10: Age distribution of newly registered non-patient egg donors over five years 2009–2013



Three quarters of non-patient donors registered for their eggs to be used in treatment over the last five years identified themselves as white British. The second largest ethnic group recorded was any other white background.

Figure 11: Ethnic group of newly registered non-patient egg donors, 2009–2013

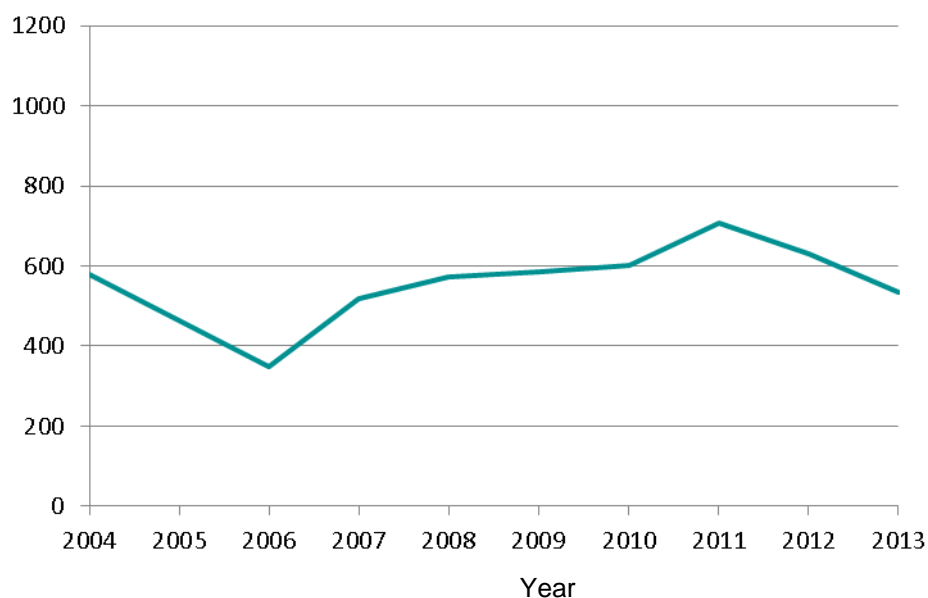


Egg sharing donors

Egg sharers are women who donate eggs and also have treatment themselves, whether in the first or subsequent cycles. In 2013, 533 patients registered as egg sharers, a decrease on 2012 and 2011 figures when there were 629 and 708 respectively.

Figure 12: Newly registered egg sharing donors 2004–2013

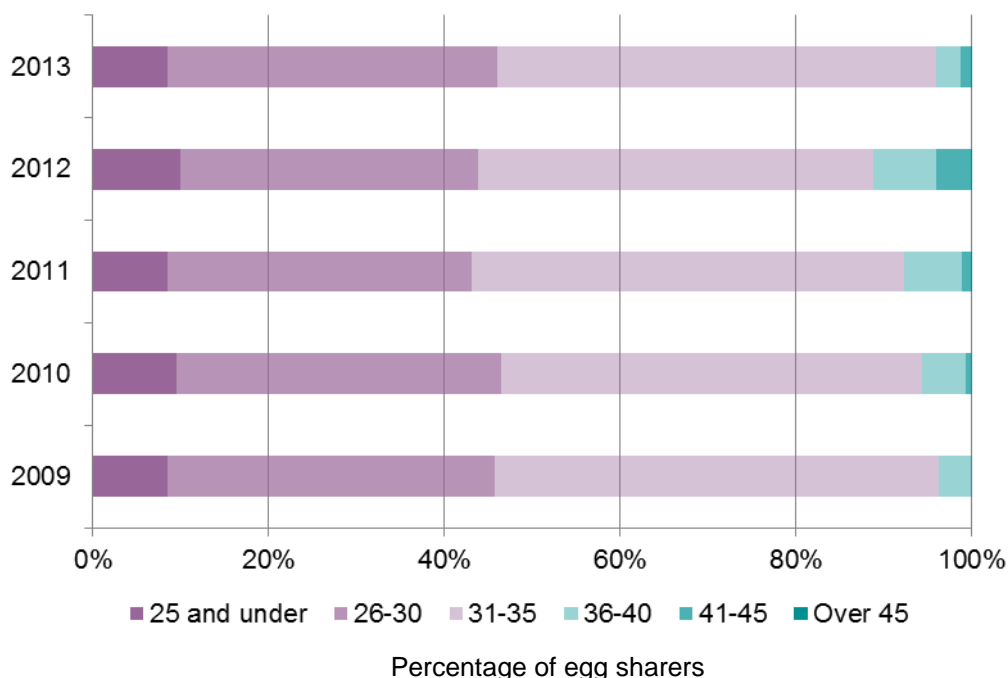
Number



Of the sharers whose eggs were registered for use in treatment in 2011, just over a quarter already had their own children; the remaining three quarters did not. The difference between this figure and that for non-patient egg donors is to be expected, as sharers are having treatment specifically to have a child of their own.

Over 80% of egg sharers were aged between 26 and 35. Again, we expect this to be different to that seen with non-patient egg donors as these women are hoping to have their own child as a result of treatment and are therefore likely to be around the typical age of motherhood in the UK¹.

Figure 13: Age distribution of newly registered egg sharing donors, 2009–2013



¹ The average age of all mothers in 2013 was 30.3 years and 28.3 years for first time mothers according to Office for National Statistics figures: http://www.ons.gov.uk/ons/dcp171778_380800.pdf

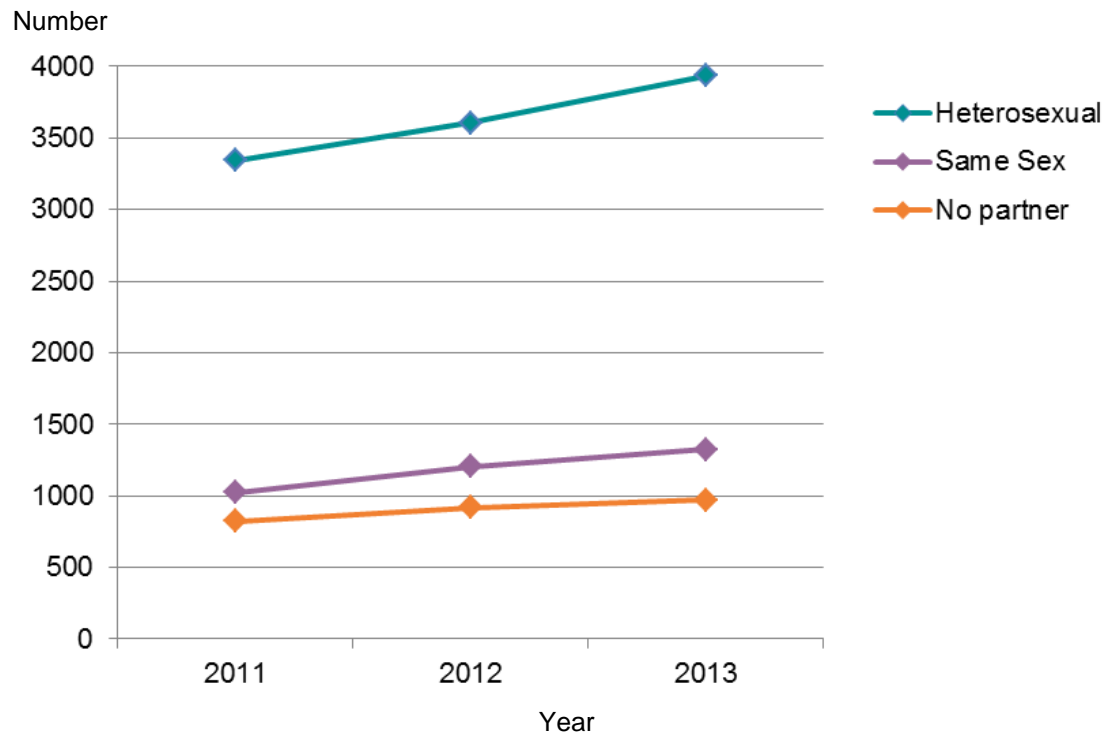
Key points

- New sperm donor registrations decreased slightly in 2013, after an increase in 2012
- New non-patient egg donor registrations have increased in both 2012 and 2013
- More egg and sperm donors in the youngest age group have registered since 2011
- The majority of donors identify themselves as white British, or any other white background.

Recipients

We split the recipients of donor gametes in to those with a male partner, female partner, or no partner. The number patients in each group has increased year on year from 2011 to 2013, see figure 14.

Figure 14: Number of patients receiving treatment with donated gametes, 2011–2013



Some couples and single women have more than one treatment type in a given year, for instance they may have several cycles of DI, before moving on to IVF with donated sperm. This means that the percentages below do not sum to 100%, as women fall in to more than one category.

Heterosexual couples

In 2013, 3,934 heterosexual couples (female patients registered with a male partner) received 5,422 cycles of fresh IVF or DI treatment using donated gametes.

This is an increase on 2012, when 3,604 couples had 5,050 cycles of treatment.

Of the heterosexual couples using donated gametes:

- 28% received Donor Insemination (DI) and 76% received IVF with donated gametes.

Of those having IVF with donated gametes:

- 39% received IVF with donated sperm
- 59% received IVF with donated eggs, including those from egg share arrangements
- 3% received donated eggs and sperm.

Same sex female couples

In 2013, 1,324 same sex couples (female patients registered with a female partner) received 2,258 cycles of fresh IVF or DI treatment using donated gametes. This is an increase on 2012, when 1,026 couples had 2,156 cycles of treatment.

Of these couples:

- 48% received Donor Insemination (DI) and 59% received IVF with donated gametes.

Of those having IVF with donated gametes:

- 82% received IVF with donated sperm
- 18% received donated eggs as well as donated sperm. Women in same sex partnerships may donate eggs to each other.

Women with no partner

In 2013, 970 female patients registered without a partner received 1,645 cycles of fresh IVF or DI treatment using donated gametes. This is an increase on 2012, when 916 women had 1,582 cycles of treatment.

Of these women:

- 50% received Donor Insemination (DI) and 59% received IVF with donated gametes.

Of those having IVF with donated gametes:

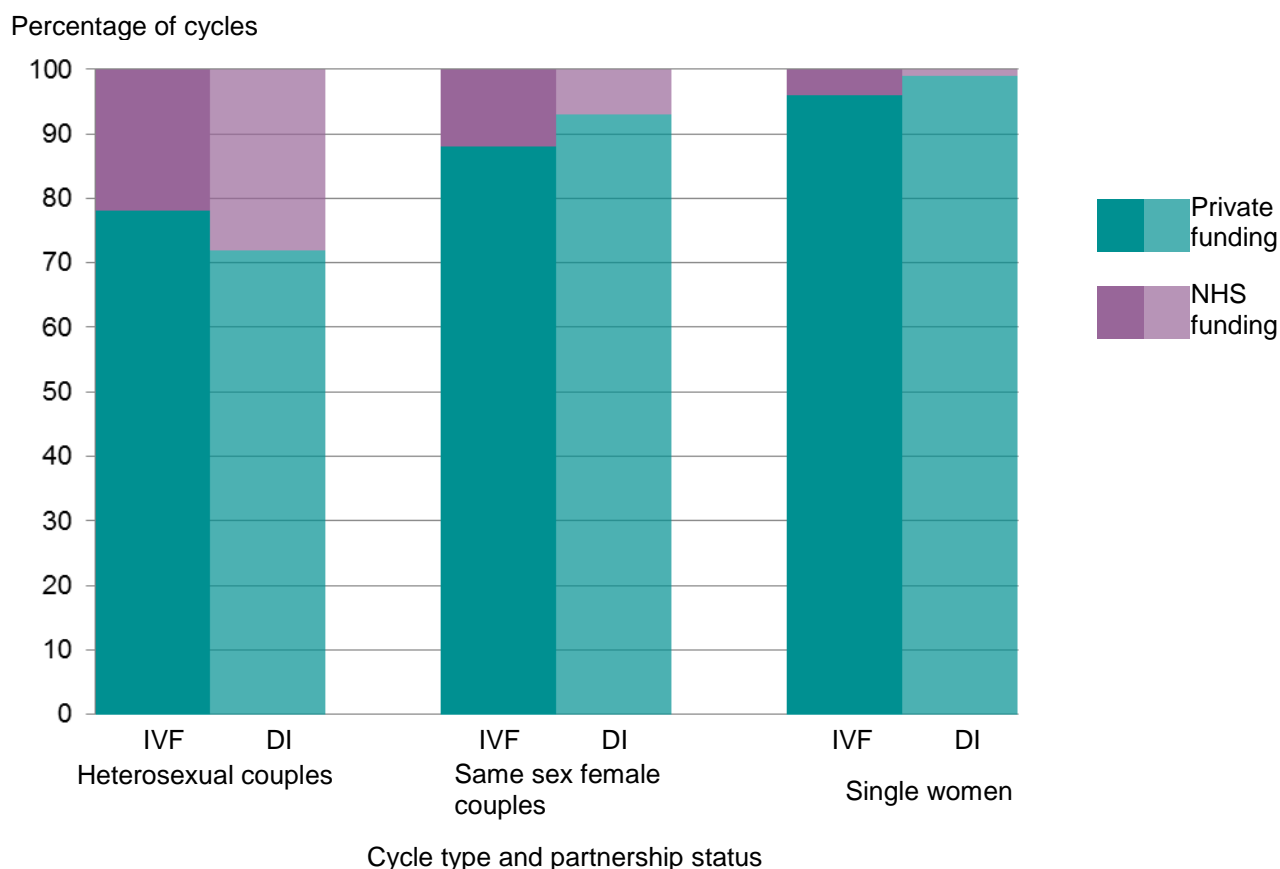
- 80% received IVF with donated sperm
- 20% received donated eggs as well as donated sperm.

Funding

Overall, the NHS funds around 40% of IVF treatment cycles. The remaining 60% are funded privately by the patients².

For treatment using donated gametes, our Register shows that NHS funds a smaller proportion of the treatment performed, see Figure 15. Women in same sex partnerships and without a partner are much less likely to receive NHS funding for their treatment.

Figure 15: Funding source for treatment cycles using donated gametes, by partnership status, 2013



Key points

- The number of treatment cycles using donated gametes has increased for all patients – those in heterosexual or same sex partnerships and those with no partner
- The NHS funds a small proportion of treatments involving donated gametes, in particular for women in same sex partnerships and without a partner

² Fertility Treatment in 2012: Trends and Figures
www.hfea.gov.uk/docs/FertilityTreatment2012TrendsFigures.PDF

Conclusions

This report is intended to be a preliminary assessment of the impact of our donation new policies which were implemented in April 2012.

We have seen that the number of newly registered sperm donors seemed to increase immediately after implementation, but fell back down again the following year. The number of egg donors increased consistently, but the number of egg sharers fell.

Some respondents to our survey reported that their waiting lists for treatment with donor eggs fell, and that they were no longer recommending women travel abroad. Others felt that they still needed to recruit more egg donors to meet demand. For sperm donors, clinics reported that they were able to efficiently import the sperm they needed from abroad.

The number of treatment cycles has increased, so more couples and single women are having the chance to create the family they want.

The new policies, and perhaps the publicity surrounding them, may have had a positive impact on new donor registrations, if only temporarily for sperm donors.

Our Register cannot tell us the whole picture with donation. It cannot tell us how many women travel abroad for treatment, or why. It cannot tell us anything about waiting lists, or unmet demand for specific donor types.

We also only have two years' worth of data, and it is not sensible to try and draw concrete conclusions from such limited numbers, particularly about trends.

We therefore plan to perform a fuller analysis of the impact of the policies in two to three years' time. By necessity, this will include a substantial qualitative aspect, not just Register data, as the clinics performing donor recruitment and treatment with donated gametes are best placed to tell us the impact on their practice of the policies we introduced.