

# Anonymity in sperm donation: what do the numbers say?

Tom Ellis, Monday 25th February 2008, tom-bfs@jaguarpaw.co.uk

Draft version 0.1

## Introduction

The British Fertility Society (BFS) Working Party on Sperm Donation Services in the UK has recently published a report<sup>1</sup> and recommendations on the availability of donor sperm in the UK.

The report has already provoked<sup>2</sup> attack on the removal of anonymity in sperm donation, blaming it for a shortage in availability of DI in the UK. This response was not encouraged by the BFS report, nor justified by the HFEA figures, nor is it clear there is any shortage at all, as the following analysis demonstrates.

## Analysis of the data

The annual number of IVF patients has remained approximately constant at a level of 18000 since 1994.

The annual number of DI patients has been dropping at a constant rate from 10000 in 1992, to 3000 in 2006. This suggests that *removal of anonymity has had no effect on the numbers of DI patients*. The number of cycles per patient has experienced a general downward trend since 1992. It is by no means clear what effect the removal of anonymity has had here, and will not be for several subsequent years.

The level of patients using ICSI has been increasing since its introduction. Graph 1 suggests that the reduction in numbers of DI patients is strongly linked to the increase in ICSI patients. It should be noted that the total number of DI and ICSI patients has increased at an approximately constant rate since 1994.

One consistent and reasonable, and indeed the most immediately obvious, interpretation of these facts is as follows:

Increasing numbers of patients who previously would have chosen DI have taken the chance to use ICSI.

Some patients who would not have chosen DI in the past<sup>3</sup> are also choosing ICSI.

Thus, it would be scare-mongering to conclude, based on these figures alone, that removal of anonymity has had any effect on availability of DI.

The BFS report uses "shortage of sperm donors" to mean that there are more than 10 DI patients per sperm donor. *By this metric there has been a shortage of sperm donors since 1991, and indeed the shortage has been much reduced since 1992. (Graph 3) Thus removal of anonymity has had no effect on the shortage of sperm donors.*

## Summary of the analysis of the data

---

<sup>1</sup> [http://www.britishfertilitysociety.org.uk/news/documents/2008\\_02\\_Sperm Donation Services.pdf](http://www.britishfertilitysociety.org.uk/news/documents/2008_02_Sperm%20Donation%20Services.pdf)

<sup>2</sup> <http://bionews.org.uk/commentary.lasso?storyid=3731>

<sup>3</sup> For example, they may not have been prepared to have a child that was not related to both parents

The data produced by the HFEA supports the claim that *removing anonymity has had no effect on the availability of DI*. Other interpretations are possible, but it will require several more years' worth of data. Until that time, *any claims about the negative effects of removing anonymity are simply scare-mongering*.

## **Analysis of the BFS report**

### **Introduction**

Despite claiming [line 62] that "members of the group consisted of relevant stakeholders", and acknowledging that donor-conceived people are relevant stakeholders [line 274], no representative of donor-conceived people (the stakeholders whose point of view is arguably the most important) was a member of the panel which produced this report.

### **Registered donors**

"In absolute terms the present number of donors is 40% lower than that of the number of registered donors in 1991" [line 94]. The report fails to mention that in the same time period the number of DI patients has fallen by exactly the same amount, and it makes no distinction between cause and effect.

### **Demand for treatment**

There is a minor factual error in Table 3 [line 126]. The number of Stimulated DI patients in 2000 was 3428, not 3248.

"Such a significant change in the utilisation of DI services in the UK merits examination." [line 137] Yet the report does not perform such an examination. A brief analysis of the same data can be found above.

Paragraph 5 [line 139] claims that "without doubt [ICSI] has accounted for a significant reduction in treatment cycles with donated sperm since the mid 1990's". Thus it seems a non-sequitur for paragraph 6 [line 144] to state "One would on this basis expect the numbers of patients to require DI to remain similar to the figures of 2000". See above for my interpretation of this data.

The report notes that

"In the past 6 years, the number of ICSI patients treated per year has increased by nearly 6000 (10468 in 2000; 16363 in 2006." [line 163]

but claims

"It is highly likely that this increase is due to lower thresholds in using ICSI as the insemination technique in moderate male factor infertility in preference to IVF, rather than a switch of core DI patients to ICSI programmes using their own gametes."

The most obvious conclusion is that decrease in DI is directly related to increase in ICSI, as I note above. But the report does not offer any evidence or reasoning for concluding differently.

The number of cycles per patient has decreased slowly and steadily since 1992 (Graph 2), yet the report claims "From the above data, which relates to actual treatments carried out, one can infer that there is a potential unmet demand for treatment using DI." [line 170] It is unclear how this inference is to be made.

Whilst attempting to forecast the future trends in demand for DI, we find the statement "The present level of 4000 patients per annum may be a reasonable demand estimate", yet the latest reported number of DI patients is just over 3000 (Table 2 [line 114]).

### The limit on family numbers to 10

Whilst donor-conceived people are "Unable to protect their own interests" [line 274] before their conception, and indeed before adulthood, that group of people *can* protect the interests of those who will be involuntarily made members of the group in the future – yet no donor-conceived person was a member of the panel which produced the report.

### Sharing and exchange schemes

"Mirror exchange programmes such as have been reported in Italy where the male partners of females undergoing egg donation treatment can undertake to provide sperm for the DI programme which allows quicker access to the IVF programme than would be usual (8 months rather than 2 years)."[sic] [line 318]

As the panel is probably aware, but did not clarify, donor-conception has been illegal in Italy since 1993.

### General comments

In many places, due to an ambiguity in the English language, the report refers to donor-conceived people as "children". I suggest that where possible "donor-conceived people" is used as an alternative to make it clear that this group of people contains fully-grown independent adult human beings, as well as minors.

### Conclusion

I conclude that the BFS report contains dubious conclusions from vague evidence, and whilst it fulfills the role of providing a course of action regarding the future recruitment of sperm donors, *provides no firm evidence that lack of sperm donors is a serious problem in the UK.*

### Appendix: Data

The original source of this data is (except where noted)

[http://www.hfea.gov.uk/docs/2007-07-11\\_Long\\_Term\\_data\\_analysis\\_data\\_refresh\\_used\\_in\\_version\\_1.0\\_revision\\_2.XLS](http://www.hfea.gov.uk/docs/2007-07-11_Long_Term_data_analysis_data_refresh_used_in_version_1.0_revision_2.XLS)

### Patients and cycles by year and assistance type

Year	Unstimulated DI			Stimulated DI			IVF DI			ICSI/SUZI		
	Patients	Cycles	Cycles per patient	Patients	Cycles	Cycles per patient	Patients	Cycles	Cycles per patient	Patients	Cycles	Cycles per patient
1991	1884	3554	1.89	2756	5749	2.09	457	471	1.03	32	33	1.03
1992	3607	10030	2.78	5202	16048	3.08	1084	1258	1.16	120	128	1.07
1993	3707	9837	2.65	5037	14393	2.86	1428	1665	1.17	504	578	1.15
1994	3575	8833	2.47	4684	12651	2.70	1421	1634	1.15	1120	1284	1.15
1995	3160	7519	2.38	3960	10482	2.65	1323	1535	1.16	3351	3822	1.14

1996	2792	6032	2.16	3509	8881	2.53	1188	1386	1.17	5392	6175	1.15
1997	2677	5768	2.15	3078	7537	2.45	1057	1202	1.14	7680	8917	1.16
1998	2431	5014	2.06	2683	6565	2.45	954	1103	1.16	9656	11906	1.23
1999	2152	4193	1.95	2600	6014	2.31	900	1033	1.15	10198	12077	1.18
2000	1756	3428	1.95	2213	4926	2.23	839	979	1.17	10468	12728	1.22
2001	1525	2903	1.90	2050	4677	2.28	767	864	1.13	11404	13861	1.22
2002	1514	2853	1.88	2022	4470	2.21	784	904	1.15	12077	14922	1.24
2003	1522	2808	1.84	1993	4514	2.26	772	895	1.16	12588	15523	1.23
2004	1351	2487	1.84	2007	4406	2.20	790	927	1.17	13500	16738	1.24
2005	1259	2271	1.80	1710	3578	2.09	873	1023	1.17	14600	17788	1.22
2006	1058	1746	1.65	1214	2325	1.92	752	878	1.17	16363	19991	1.22

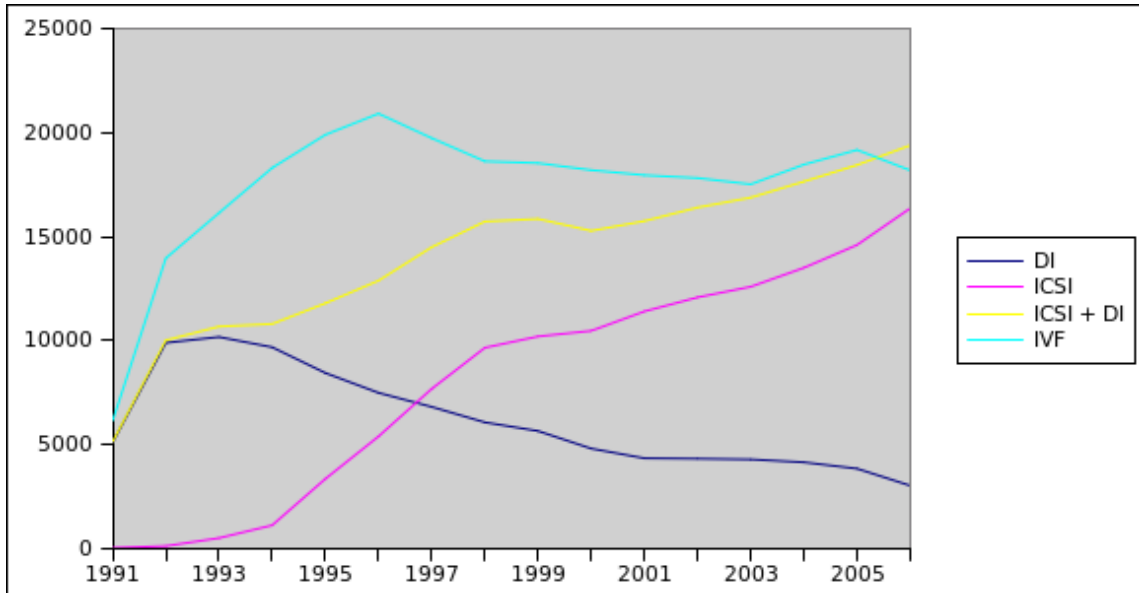
### Comparison of donor numbers to patient numbers

(Registered donor numbers taken from the BFS report. The HFEA figures are similar, but slightly different)

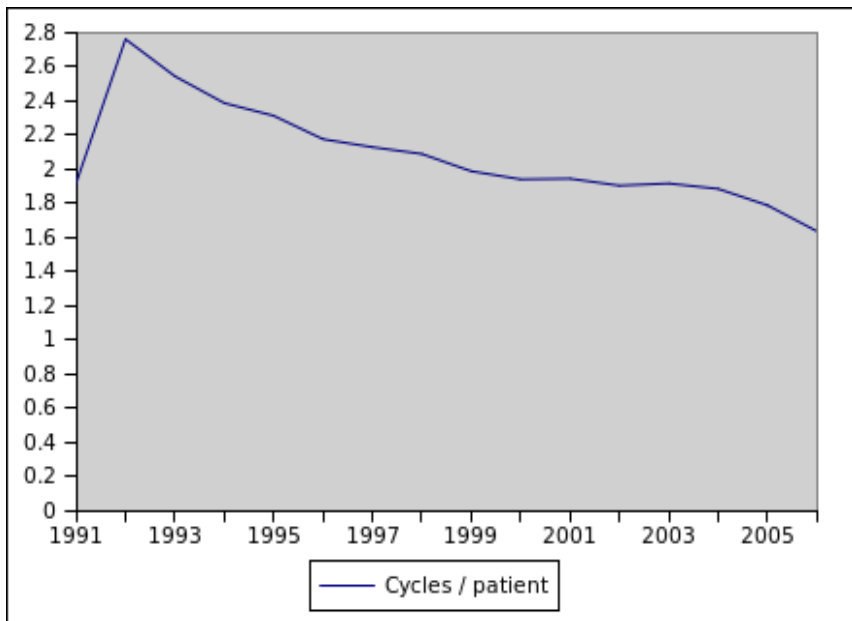
Year	Sperm donors registered in year	DI patients in year	Sperm donors per patient
1991	503	5097	10.1332
1992	369	9893	26.8103
1993	431	10172	23.6009
1994	422	9680	22.9384
1995	418	8443	20.1986
1996	421	7489	17.7886
1997	356	6812	19.1348
1998	265	6068	22.8981
1999	308	5652	18.3506
2000	328	4808	14.6585
2001	330	4342	13.1576
2002	286	4320	15.1049
2003	263	4287	16.3004
2004	247	4148	16.7935
2005	252	3842	15.246
2006	296	3024	10.2162

### Graphs

Graph 1: Numbers of assisted reproduction patients by year



**Graph 2: DI cycles per patient by year**



**Graph 3: Sperm donors per patient by year**

