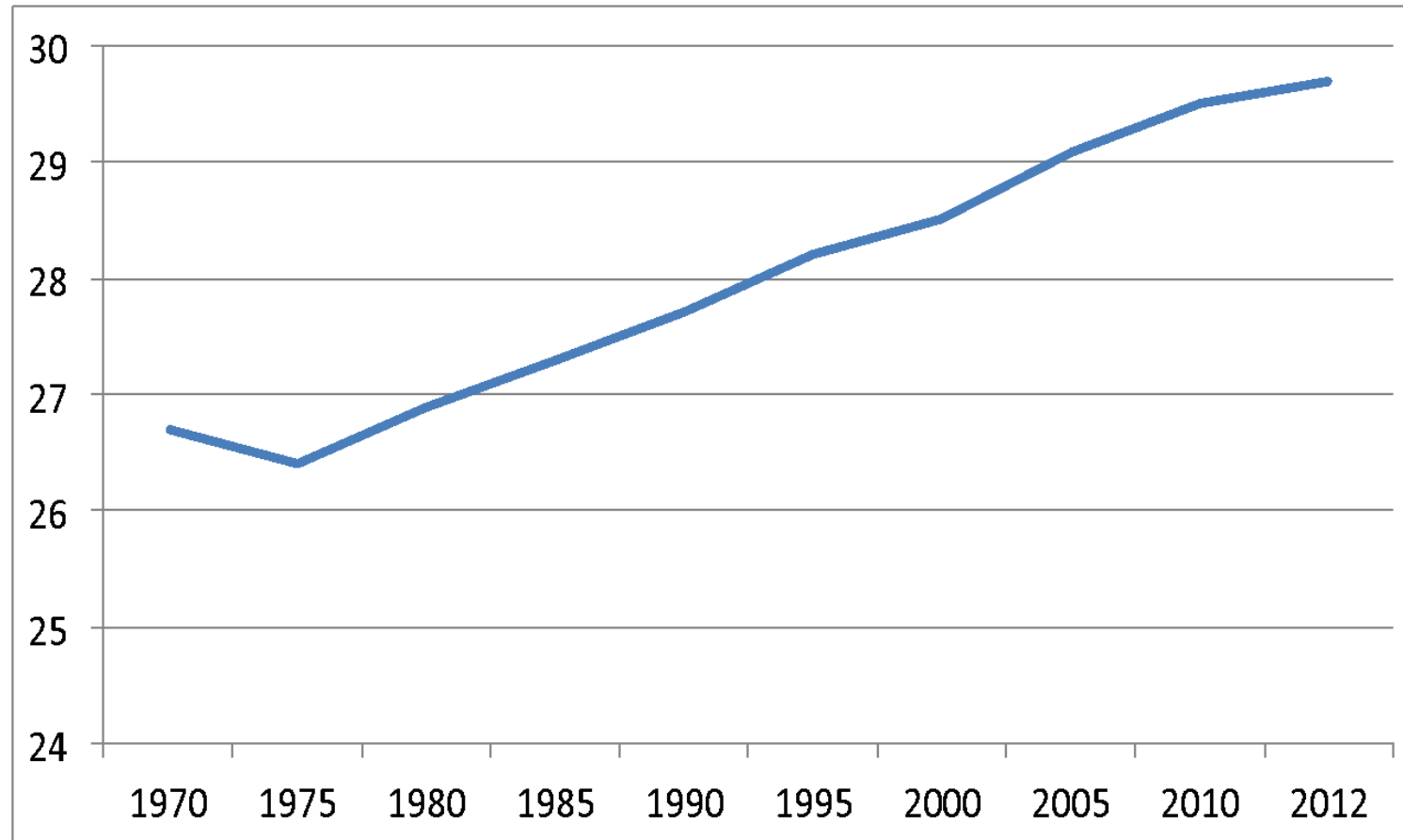


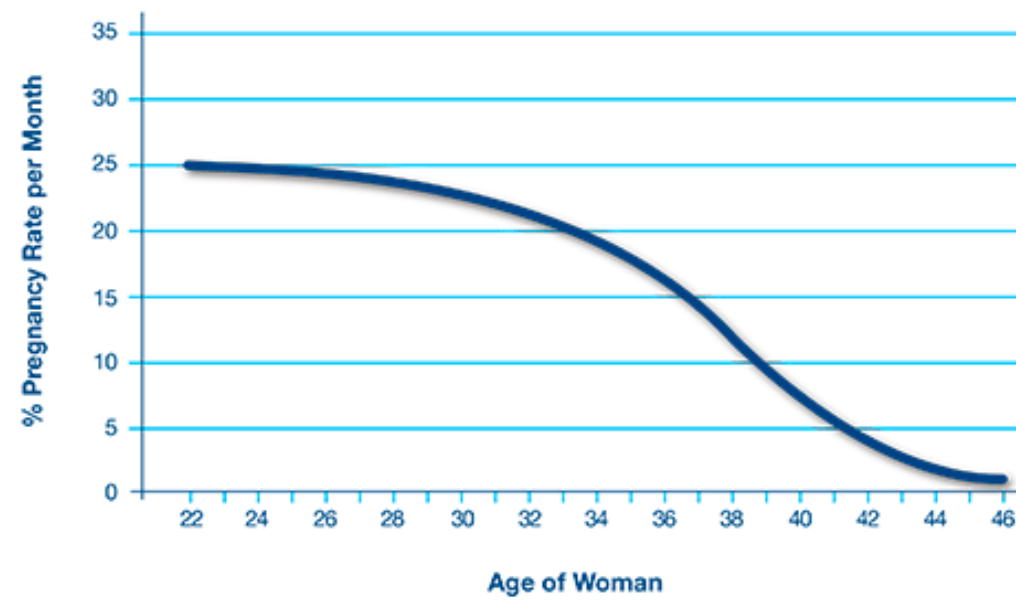
# The Fertility Journey from egg freezing to egg donation

Michael Savvas  
King's College Hospital

# Age of women giving birth in UK



### The Effect of a Woman's Age on Estimated Monthly Pregnancy Rates



Adapted from Johnson JA., et al. JOGC (2012) 34:80

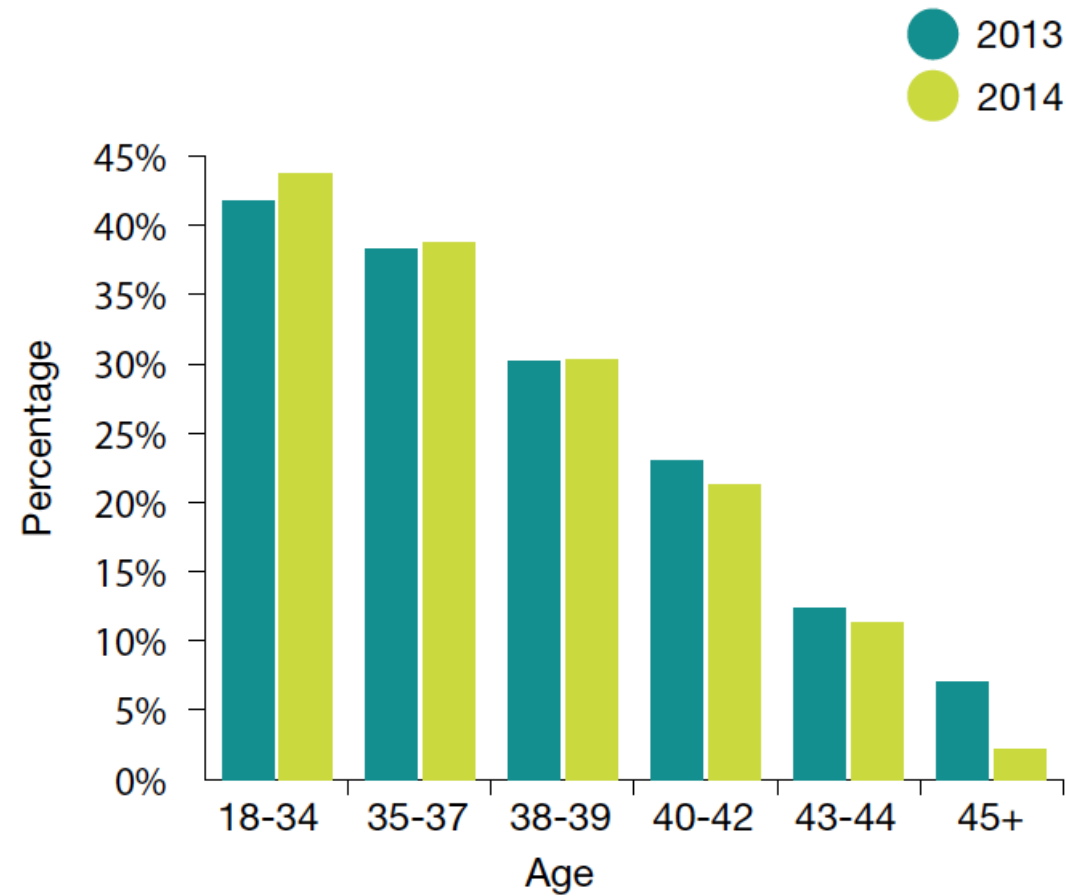
© Original Artist  
Reproduction rights obtainable from  
[www.CartoonStock.com](http://www.CartoonStock.com)



Search ID: cza0183

"I HAVEN'T DECIDED WHETHER OR NOT I WANT CHILDREN,  
BUT I KNOW I DON'T WANT ANY HUSBANDS!"

# Pregnancy per embryo transfer



# Premature Ovarian Insufficiency

- Loss of fertility most distressing consequence

# Fertility Planning

- Prognosis
- Predicting fertility potential
- Fertility cryo-preservation
- Donor egg treatment

# Predicting Fertility Potential

## Ovarian Insufficiency

- Clinical / Family history
- Ovarian reserve testing

*“The fertility MOT”*



# Assessment of Ovarian Reserve

- FSH
- Antral Follicle count using USS
- AMH

# Ovarian Reserve Test

- Useful in predicting response to ovarian stimulation
- Cannot reliably predict menopause or future fertility

# Fertility Cryopreservation

- Embryo
- Oocyte
- Ovarian tissue

Not helpful following diagnosis POI

# Embryo Freezing

- Established effectiveness
- Routinely used to store surplus embryos
- Fertility preservation for women in relationship

# Oocyte Vitrification

- Single women
- Where embryo freezing not permitted
- Avoids legal disputes
- Donor egg banks

Viral Screening

# Egg Freezing

**Figure 12: Number of storage cycles started by woman's age (20-45) at start of cycle, 2001-2014**



# Egg Vitrification 2011-2015

## Kings ACU

|                     | Number |
|---------------------|--------|
| No. of Cycles       | 37     |
| No. of thaws        | 5      |
| Biochem Pregnancies | 3      |
| Clin Pregnancies    | 2      |
| Live births         | 1      |

# Vitrified donor eggs

|                  | Egg Bank | Fresh |
|------------------|----------|-------|
| Age of donor     | 26       | 26    |
| Age of recipient | 41       | 41    |
| BMI              | 22.6     | 22.5  |
| CPR              | 50.2%    | 49.8% |
| Twins            | 32.4%    | 37.5% |

Cobo et al Hum Rep 2010



# Elective Fertility Preservation

## (Social Egg Freezing)

# Public Support for Social egg freezing

- Prior to cancer treatment 89%
- For career advancement 72%
- Lack of Partner 63%
- Insufficient funds 58%

Support for employer funding 37%

[Home](#) | [News](#) | [U.S.](#) | [Sport](#) | [TV&Showbiz](#) | [Australia](#) | [Femail](#) | [Health](#) | [Science](#) | [Money](#) | [Video](#) | [Travel](#) | [Fashion Finder](#)

[Latest Headlines](#) | [News](#) | [World News](#) | [Arts](#) | [Headlines](#) | [France](#) | [Pictures](#) | [Most read](#) | [News Board](#) | [Wires](#)

[Login](#)

## Revealed: Apple and Facebook pay women staff to freeze their eggs because bosses want to keep them working longer

- Silicon Valley giants willing to pay £12,500 a time to put eggs on ice
- According to NBC, Facebook has already started and Apple will in 2015
- One egg-freezing advocate said the move was 'investing in women'
- But one academic warned employees may see babies as 'incompatible'

By [DAVID GARDNER](#) IN LOS ANGELES

**PUBLISHED:** 00:54, 15 October 2014 | **UPDATED:** 01:37, 15 October 2014

☒ Site ☐ Web

Enter your search



Search



Like  
Daily Mail



Follow  
@dailymailuk



Follow  
Daily Mail



+1  
Daily Mail

### DON'T MISS

► CBB winner Stephen Bear celebrates in style as he parties the night away with a bevy of beauties... leaving love interest Chloe Khan in the lurch



► Newly-blonde Kim Kardashian flaunts her



# Social egg freezing

- Survey of 86 women
- Mean age 37 years
- Most women freezing believe will never need them
- 96% would do it again
- 50% in steady relationship
- 70% wished they had done it earlier

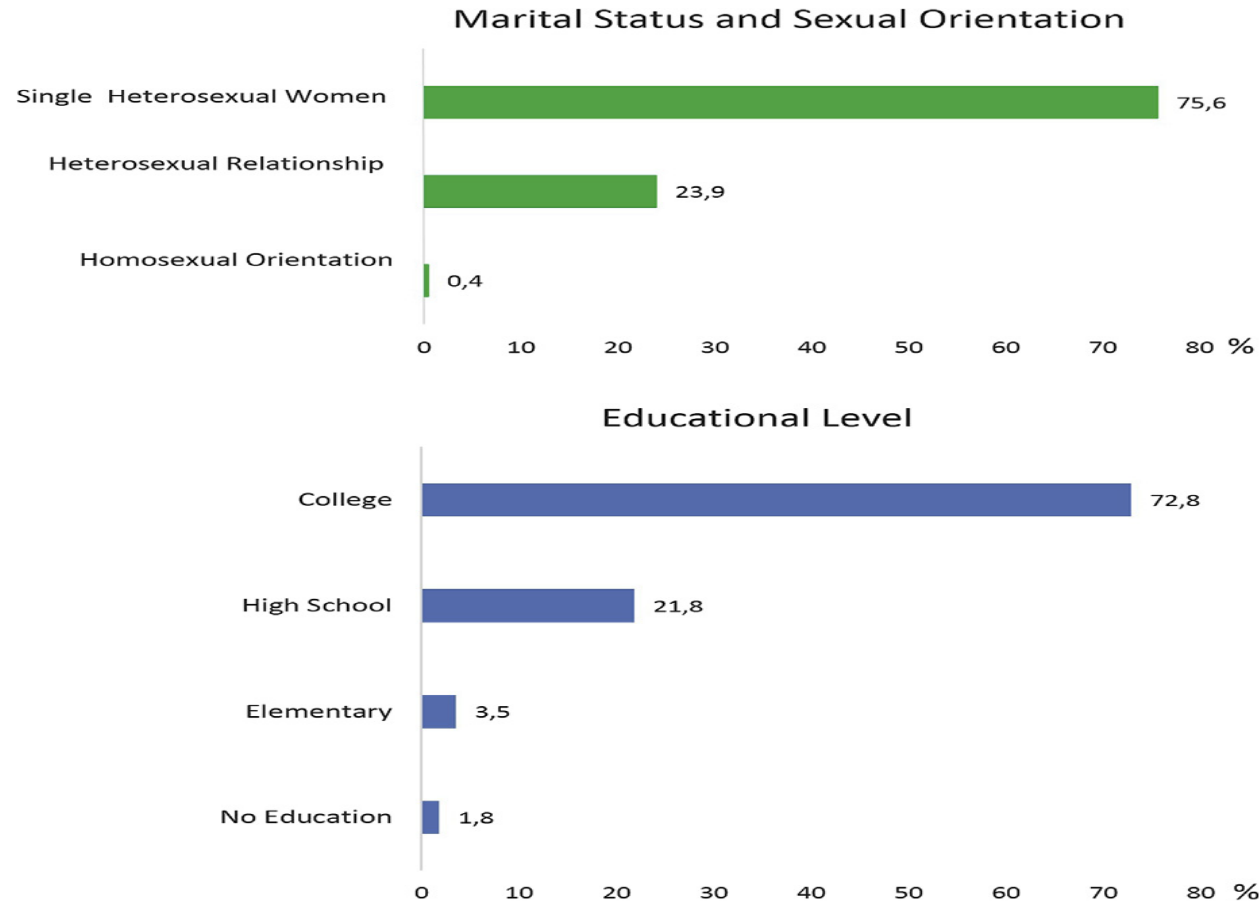
*Stoop et al ESHRE 2013*

# Egg freezing for elective fertility preservation

- 1468 Non Cancer patients
- 94% for age related concerns

*Cobo et al Fertil Steril 2016*

# Egg freezing for elective fertility preservation



*Cobo et al Fertil Steril 2016*

# Egg freezing for elective fertility preservation

|                             |          |
|-----------------------------|----------|
| NO.                         | 1468     |
| AGE AT FP                   | 37.2     |
| Pts with children           | 18 (1.4) |
| Egg no. per cycle           | 8.9      |
| No. returning for treatment | 137      |
| Age when returning          | 39.2     |

# Egg freezing for elective fertility preservation

|                            |                |
|----------------------------|----------------|
| No eggs thawed per patient | 8.6            |
| Survival rate              | 85%            |
| ET per patient             | 1.5            |
| CPR per transfer           | 54/117 (46.2%) |
| CPR per patient            | 54/137 (27%)   |
| Deliveries                 | 26             |
| Live births                | 31             |



# Conclusion

## Oocyte Freezing Effective

- Age
- Number of eggs
  - 8-10 eggs in women <35 years
- Increased obstetric complications
- Use of Donor sperm (47%)

Donor egg treatment

# Egg Donors

- Altruistic
  - Reasonable Expenses
  - Egg donors max £750 per donation
  - Max 10 families
- 
- HFEA 2012

# Egg Donors

- Healthy fertile women
- Age of 18 and 35 years of age
- Should preferably have had healthy children of her own.
- No history of mental disorders.
- There should be no family history of genetic or heritable diseases.
- Infectious screen
- Procedure and risks explained

# Legal parenthood

- Woman given birth is the legal mother
- Her spouse or civil partner is second parent
- Unmarried couples have to complete parenthood forms WP and PP

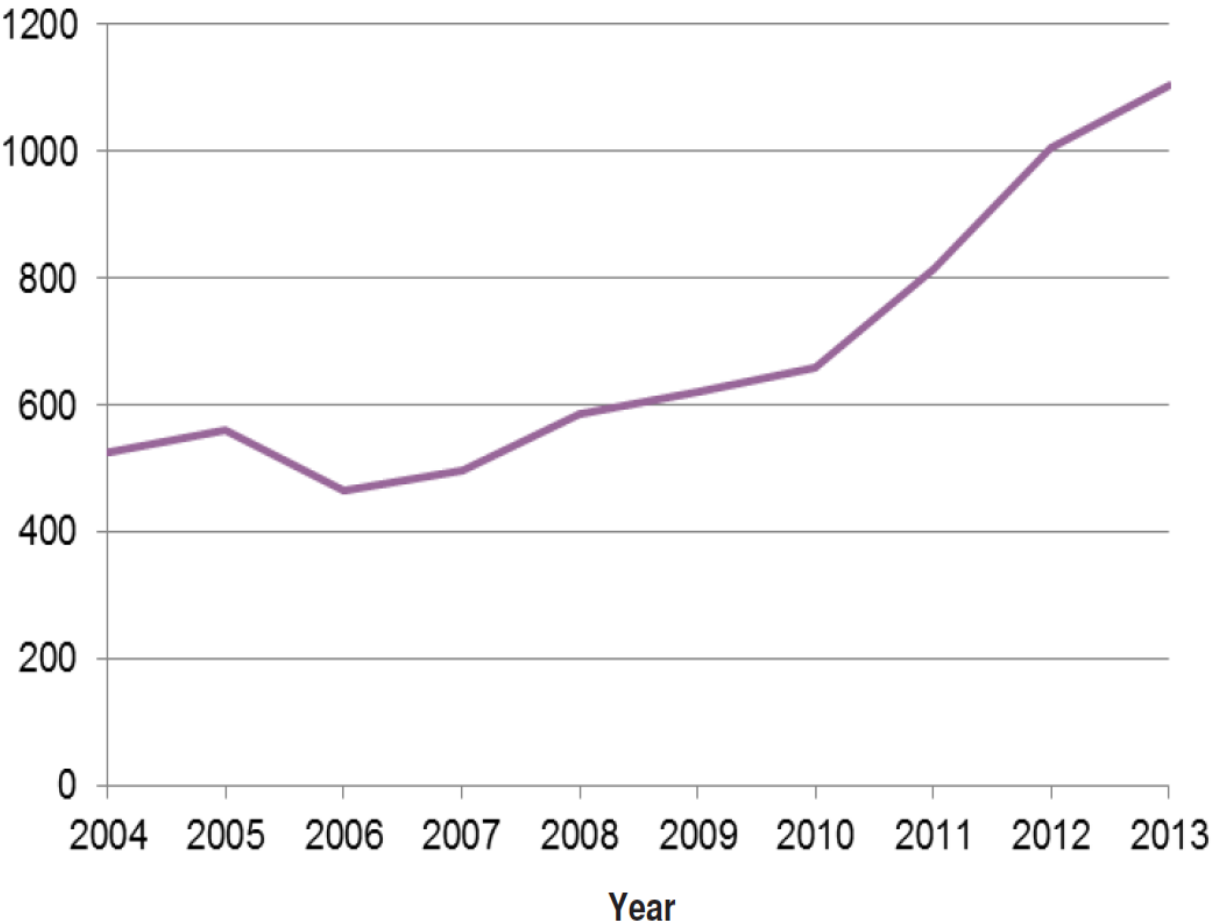
# Egg Donors

- Donors have no legal rights or obligations to children born as a result of their donated eggs.
- Can be told whether any children were born the sex and the year they were born.

# Donor Anonymity

- Those who donate gametes or embryos after 1 April 2005 are identifiable.
- Donor conceived person can obtain donor's name and last known address once they reach the age of 18.
- The decision to initiate contact is solely that of the donor-conceived child

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





# Egg donors

- Great shortage of altruistic anonymous donors in UK
- Known donors
- Egg Sharing
- Treatment overseas

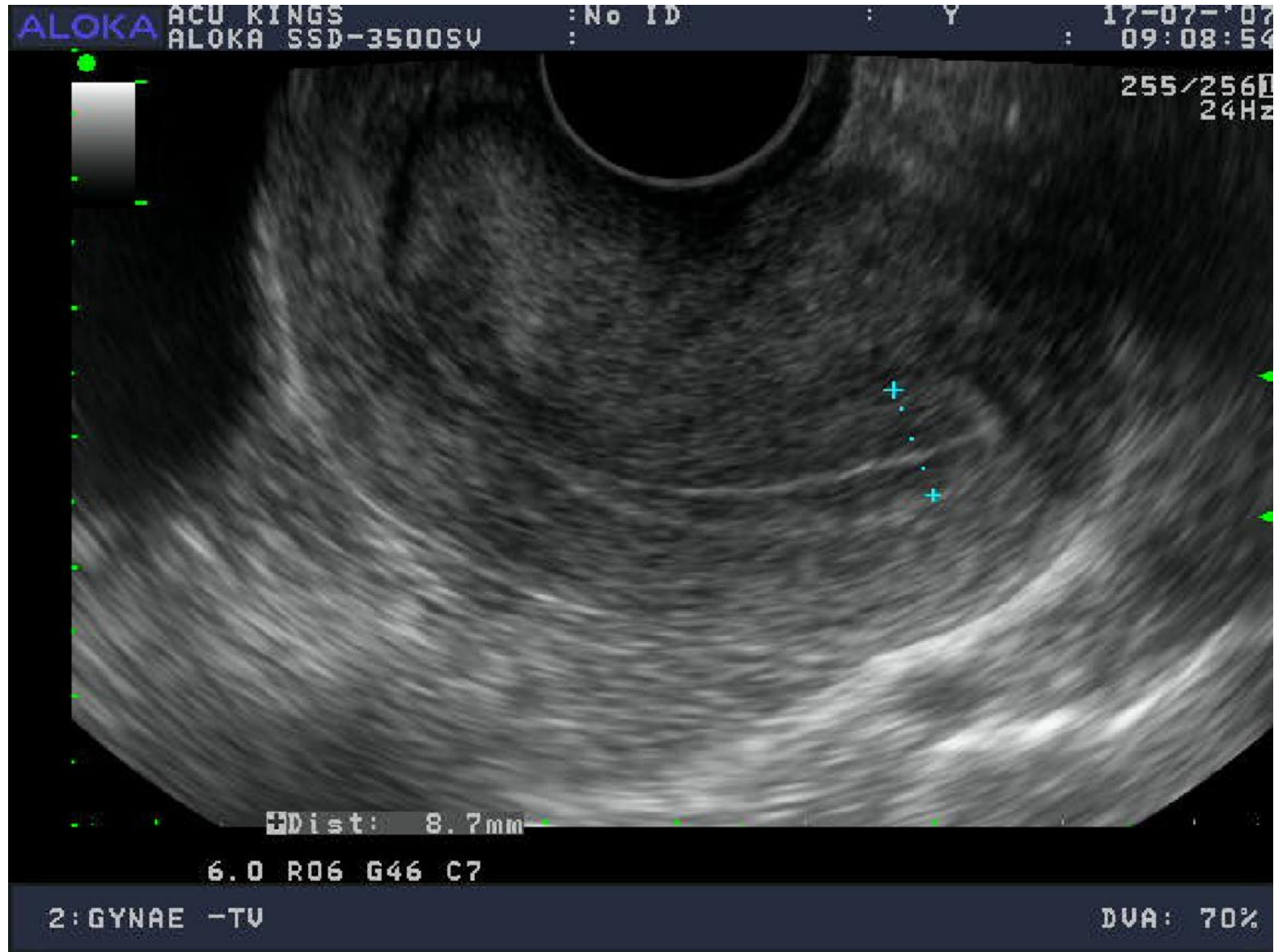
# The recipient

- Full Medical history
- WOC
- Quality parenting
- Parenthood

# Egg recipient

- will be provided with non-identifying information such as height and ethnicity.
- Pen portrait

# The endometrium





# Obstetric outcomes

Donor eggs compared with own eggs

- Increased risk of first trimester bleeding and pregnancy induced hypertension
- Higher caesarean section rate

*Stoop et al 2012*

# Conclusion

- No reliable way of predicting fertility
- Egg freezing becoming popular despite lack of UK figures
- Donor egg treatment is useful treatment in women with reduced ovarian function.

Thank you