



FERTILITY
associates

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Fertility Associates –
Leaders in Fertility

The expanding role of IVF

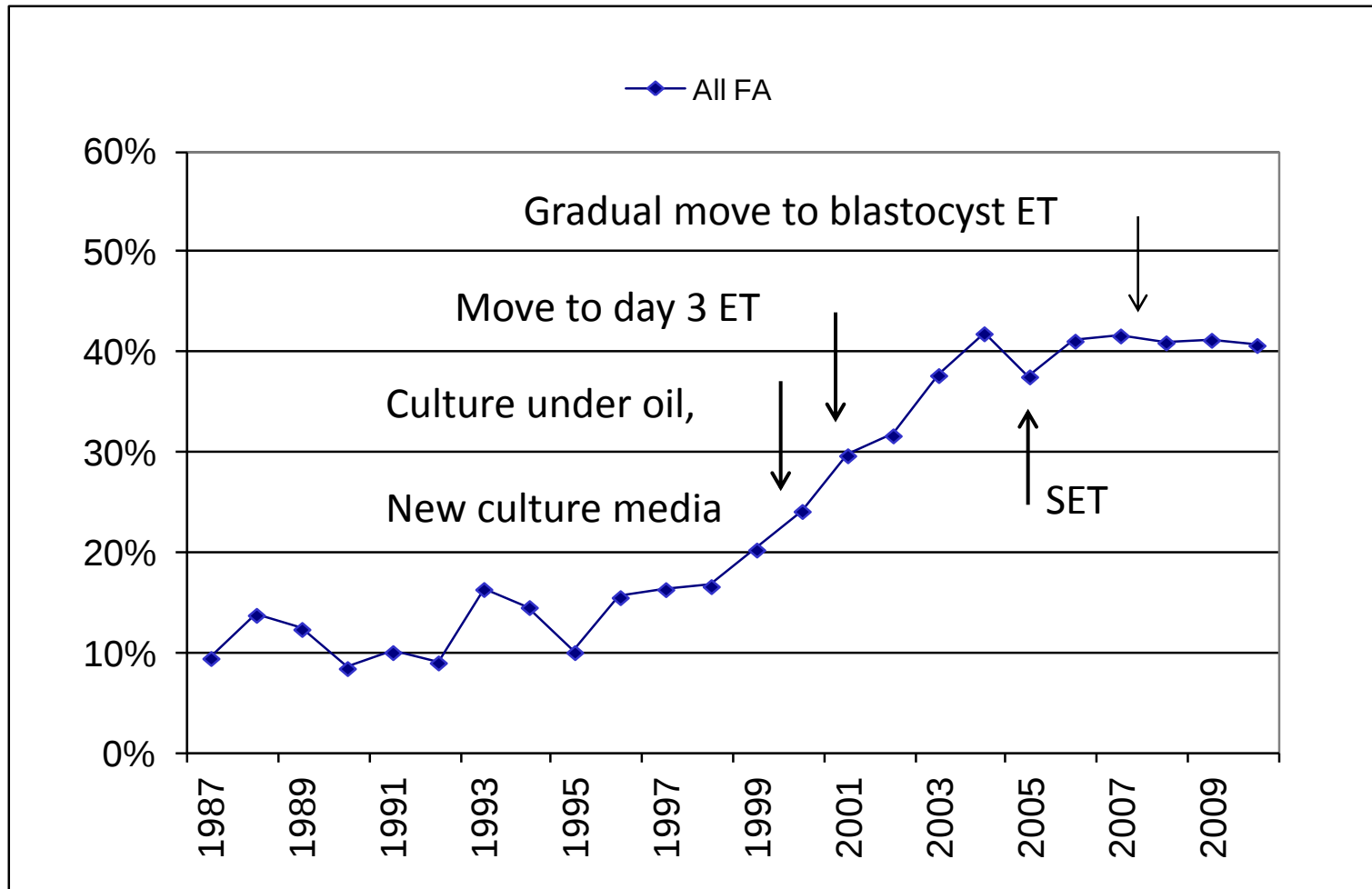
Dr Richard Fisher

IVF in 2011

- All causes, both male and female
- Blood tests
- Drugs to block ovulation
- Ultrasound egg retrieval & embryo replacement
- Common to be in 40's
- Single women and lesbian couples increasingly represented
- Fertility preservation now an option

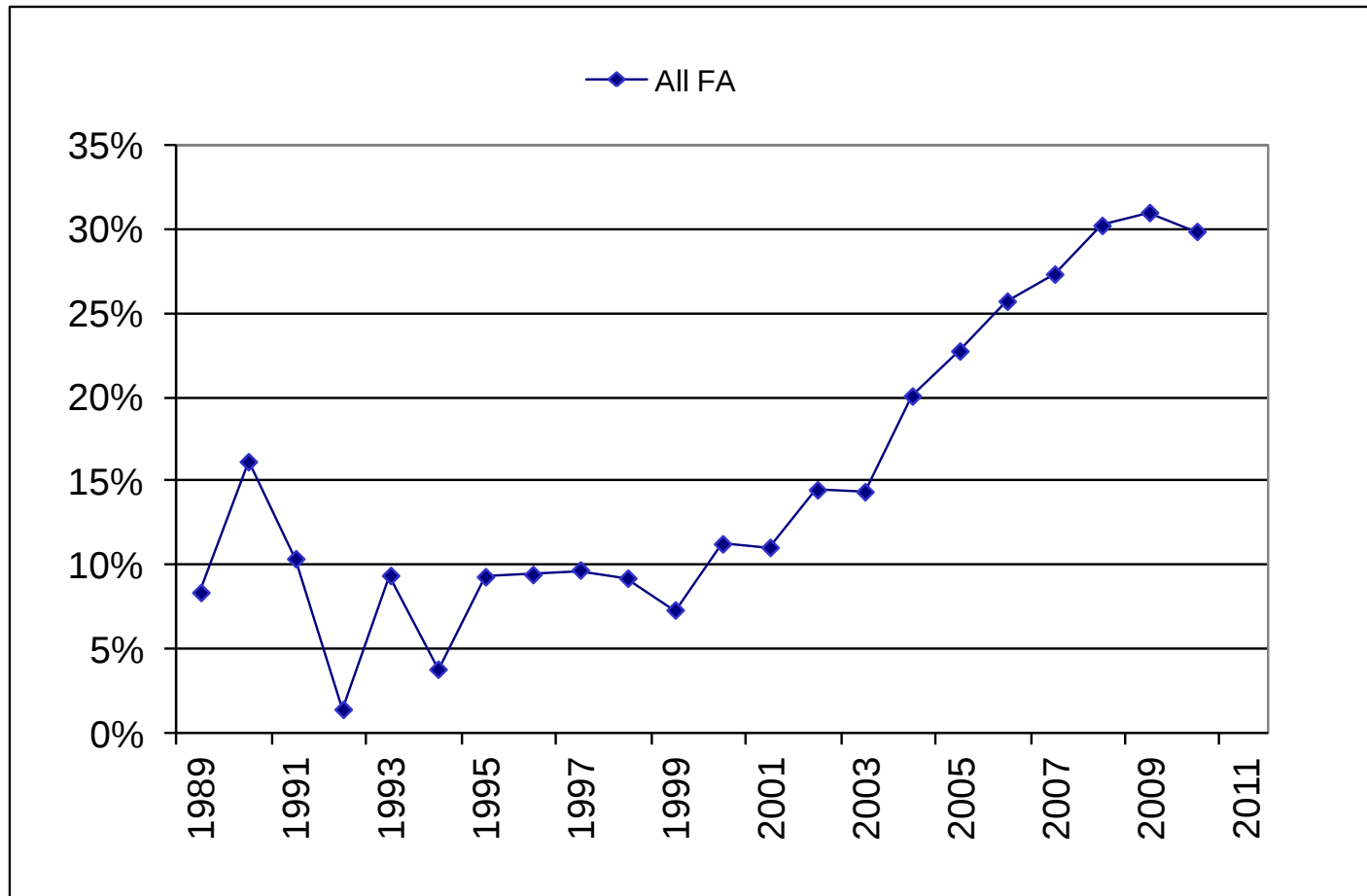


Fresh implantation rates, women aged ≤ 37

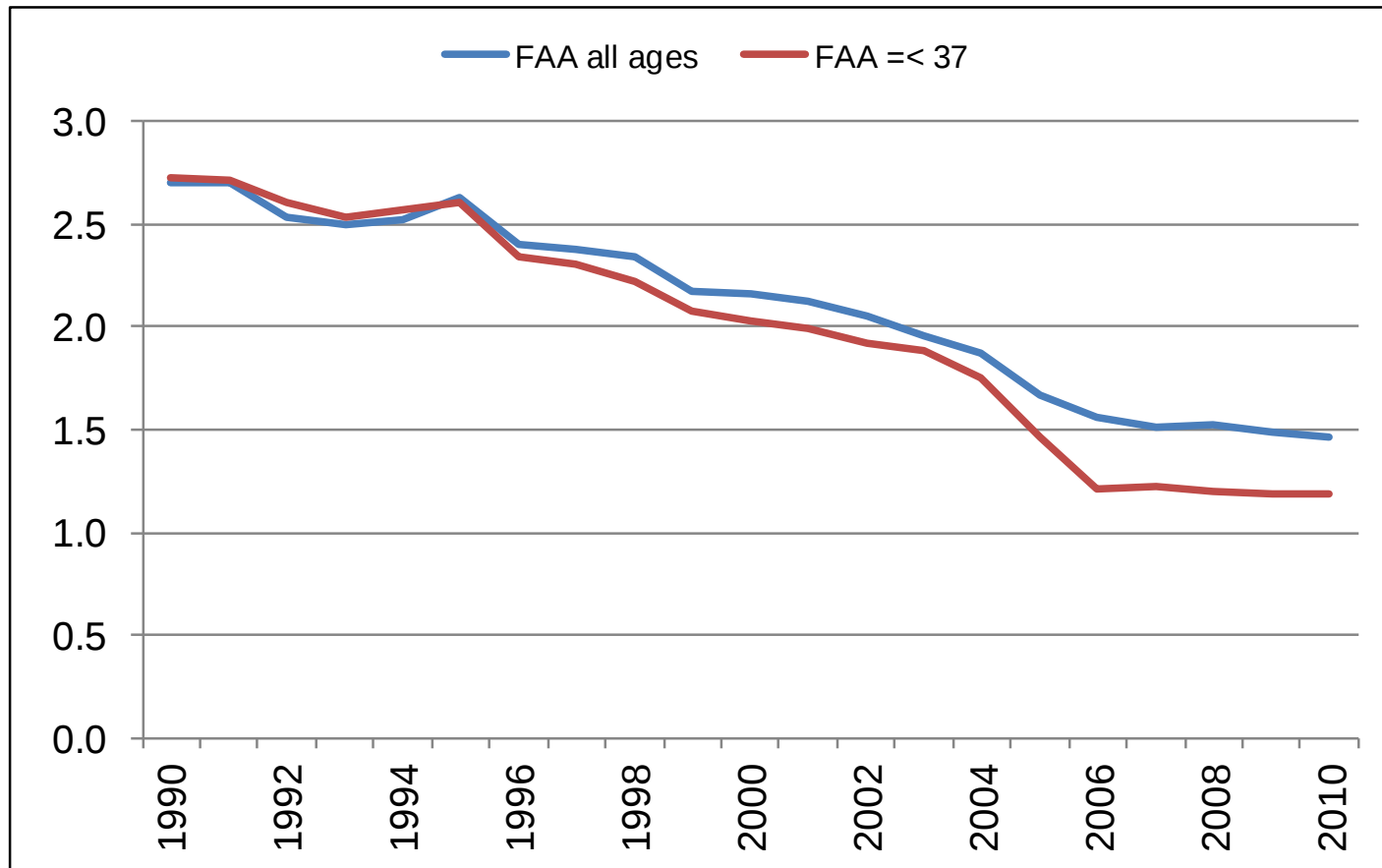




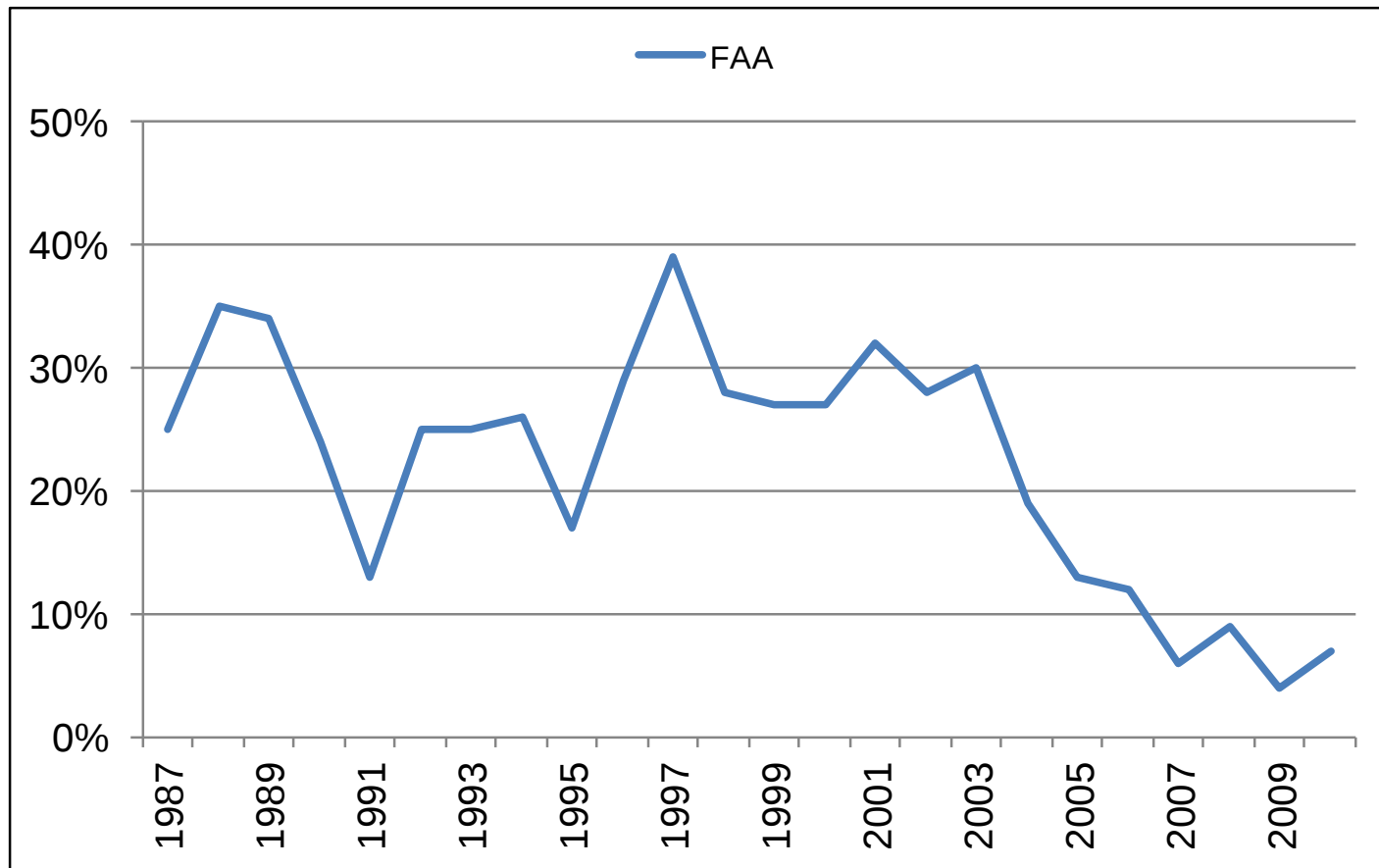
Thaw implantation rates, women aged ≤ 37



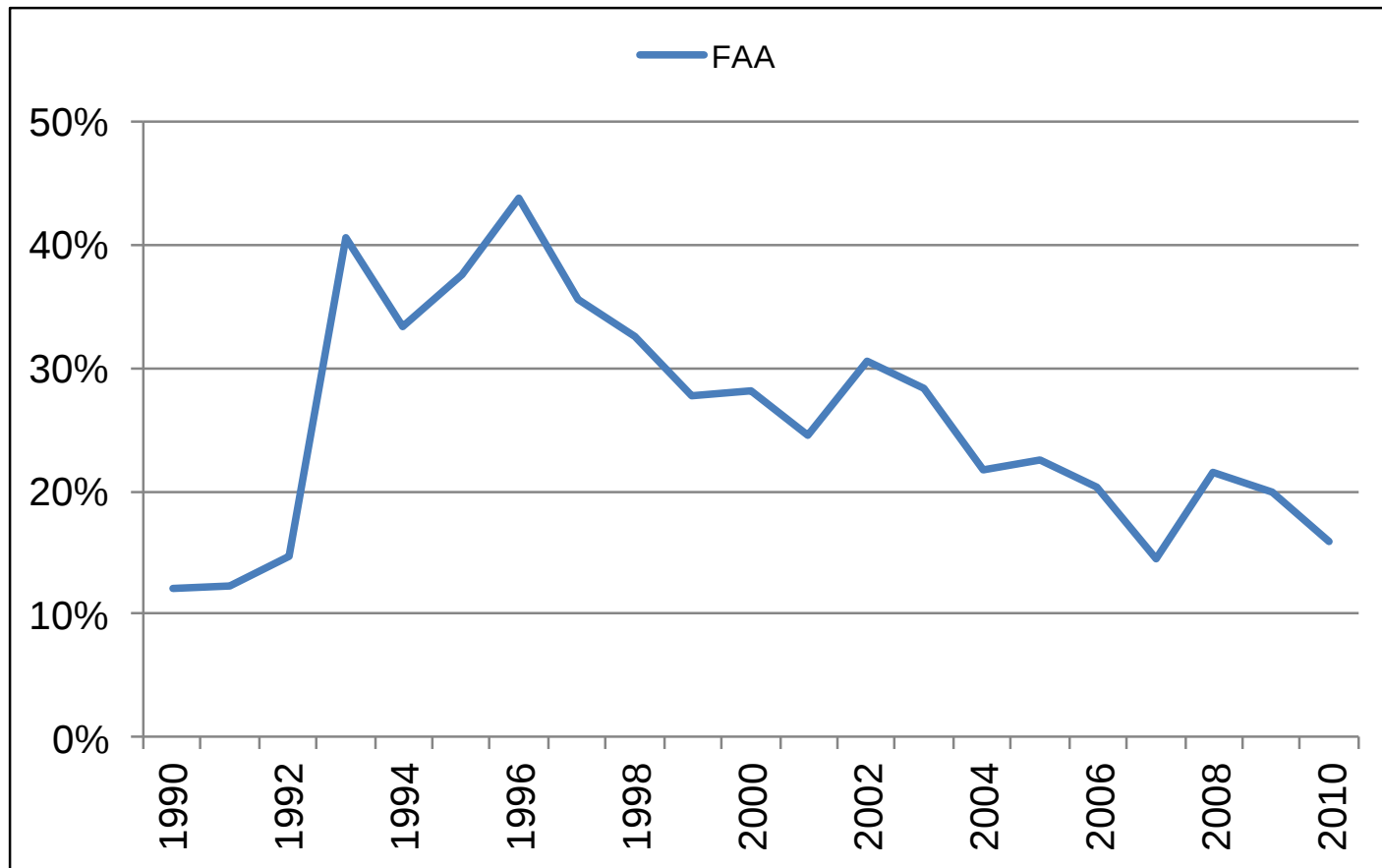
Average number of embryos transferred



Multiple IVF birth rate fresh IVF

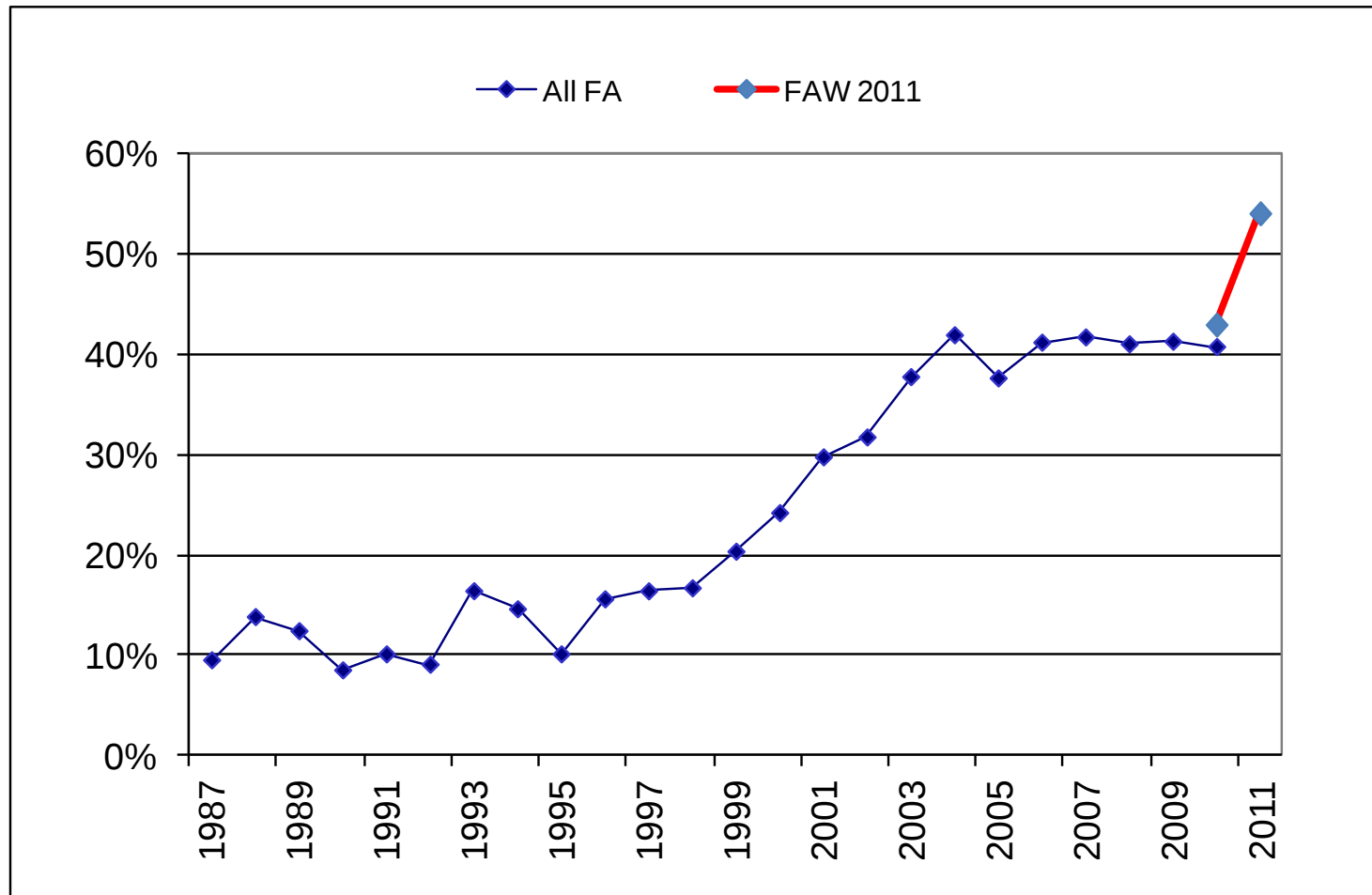


Proportion of all embryos frozen





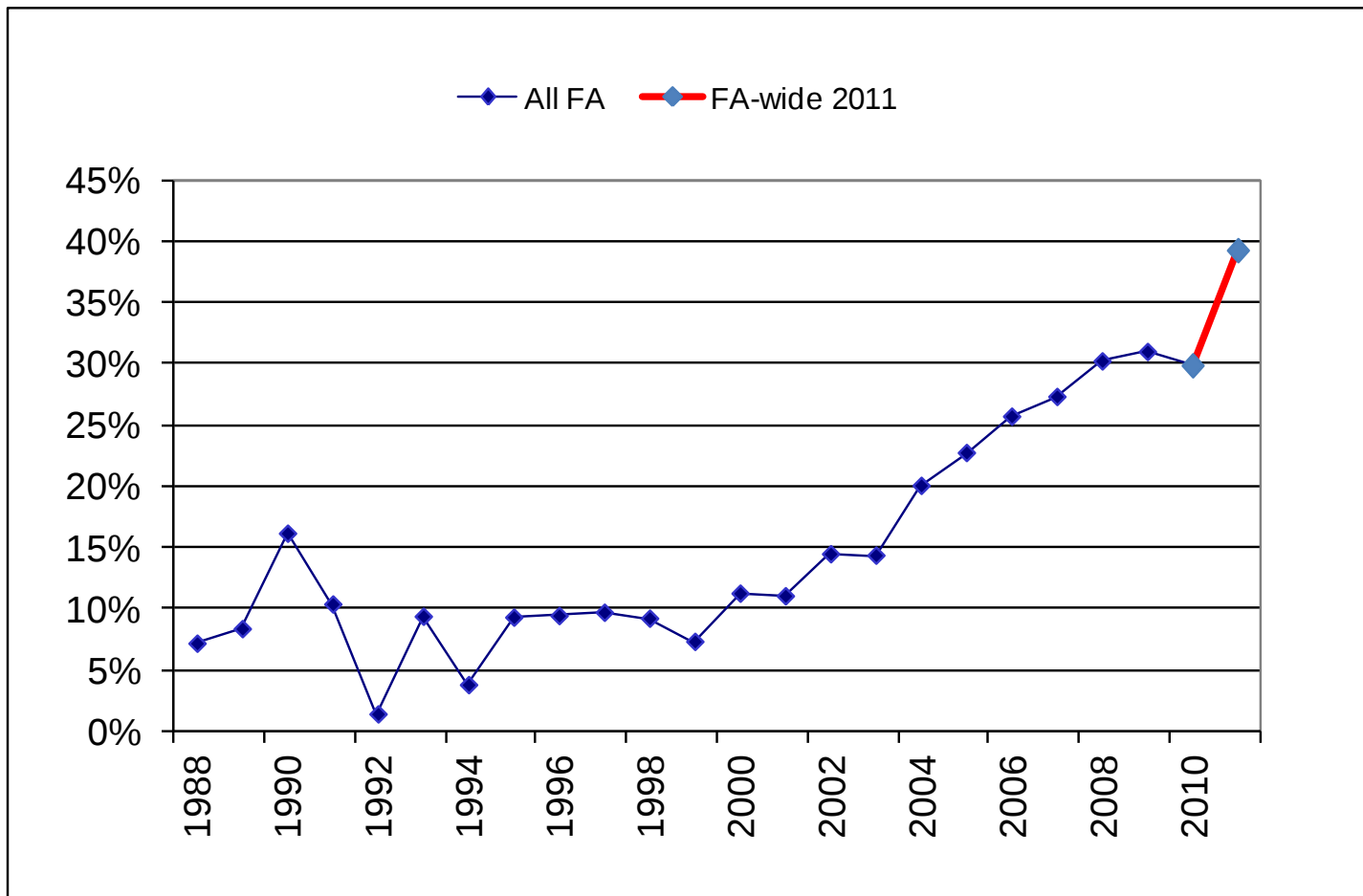
Fresh implantation rates, women aged ≤ 37 – FAW breaking through the ‘glass ceiling’





Thaw implantation rates, women aged ≤ 37

- Impact of having mainly frozen blastocysts in 2011





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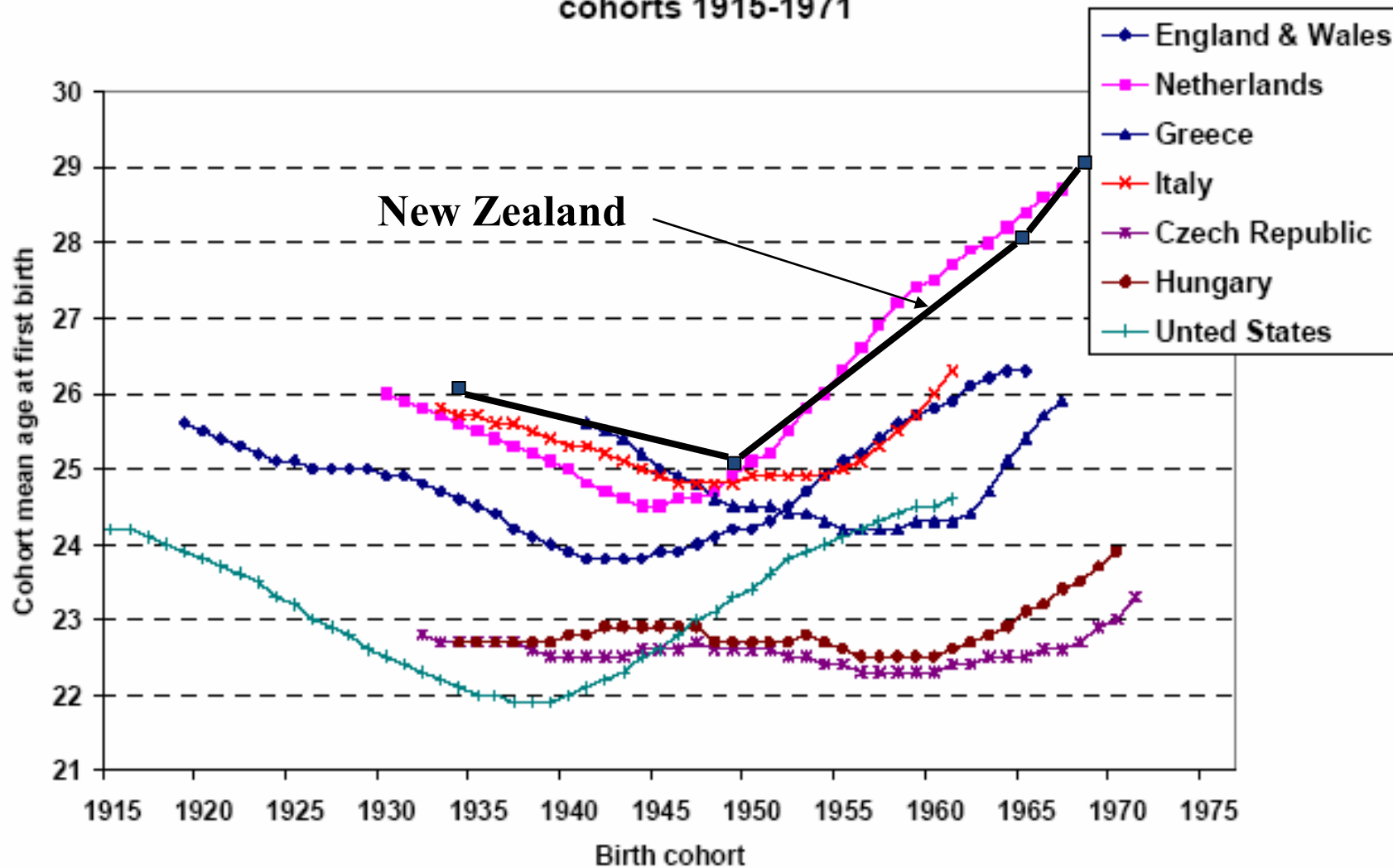
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Age is a significant issue

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Figure 4 - Cohort mean age at first birth, selected countries, birth cohorts 1915-1971

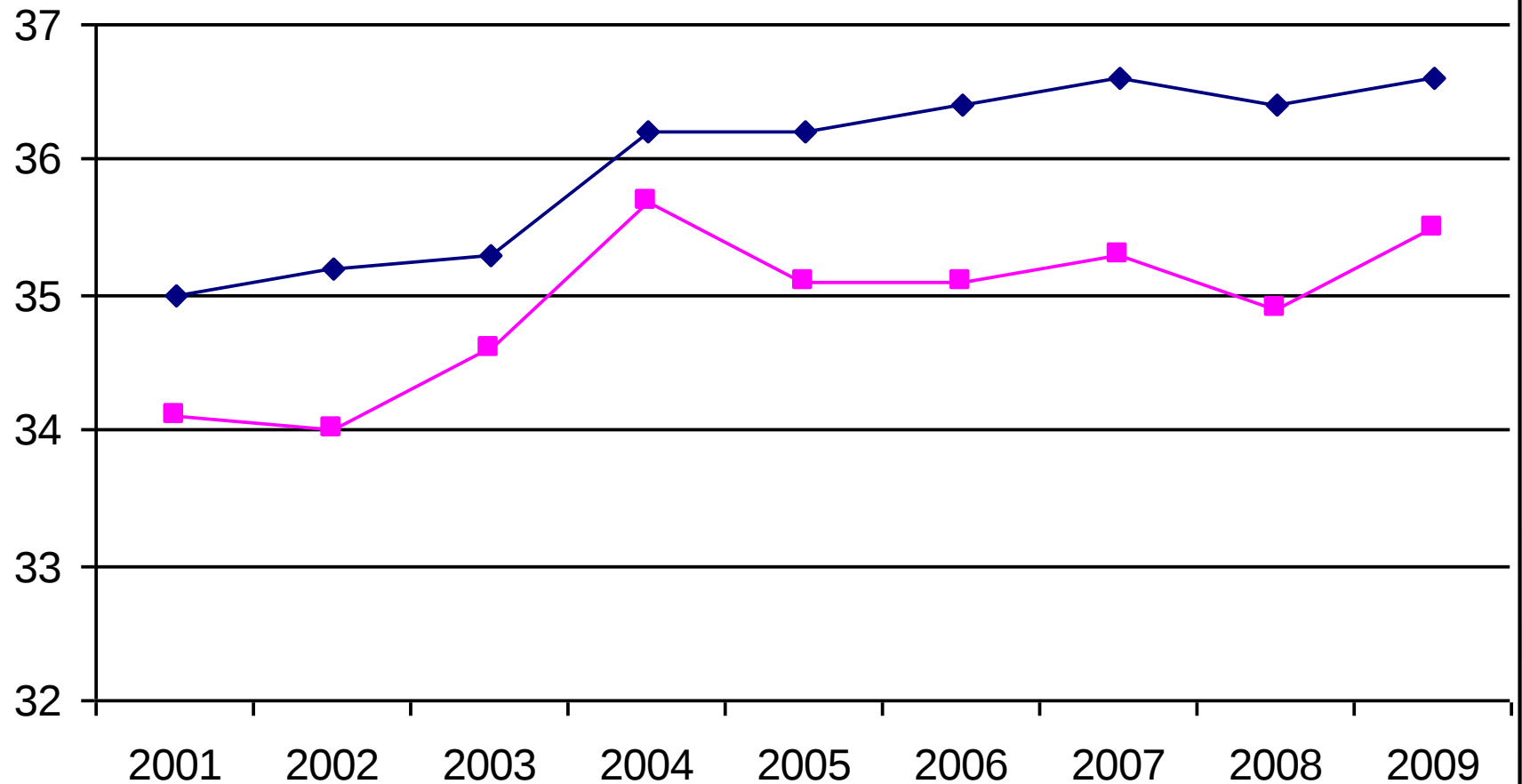




Average age at consultation

—◆— FAA private

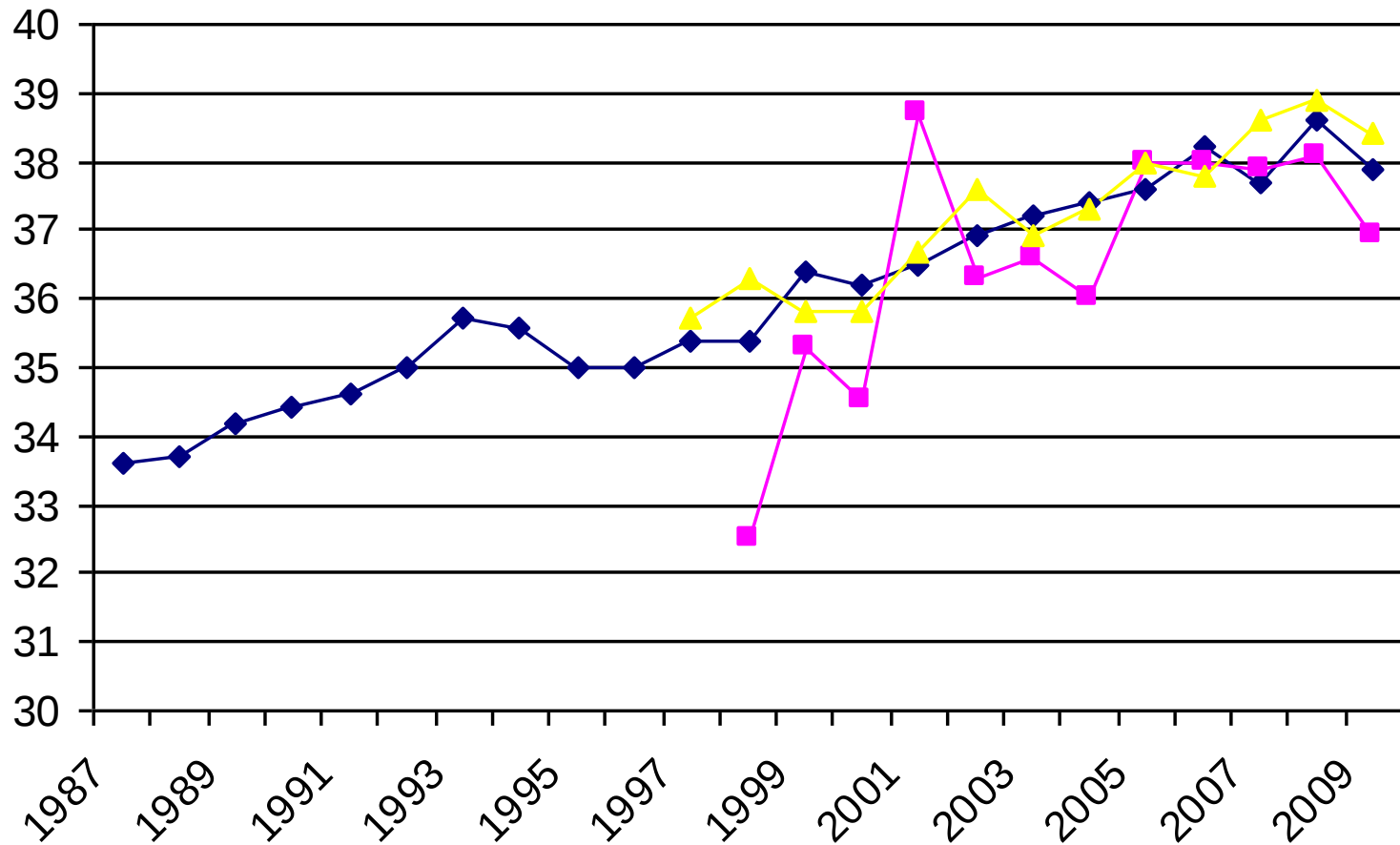
—■— FAW all





Age at starting private IVF cycle (incl DO)

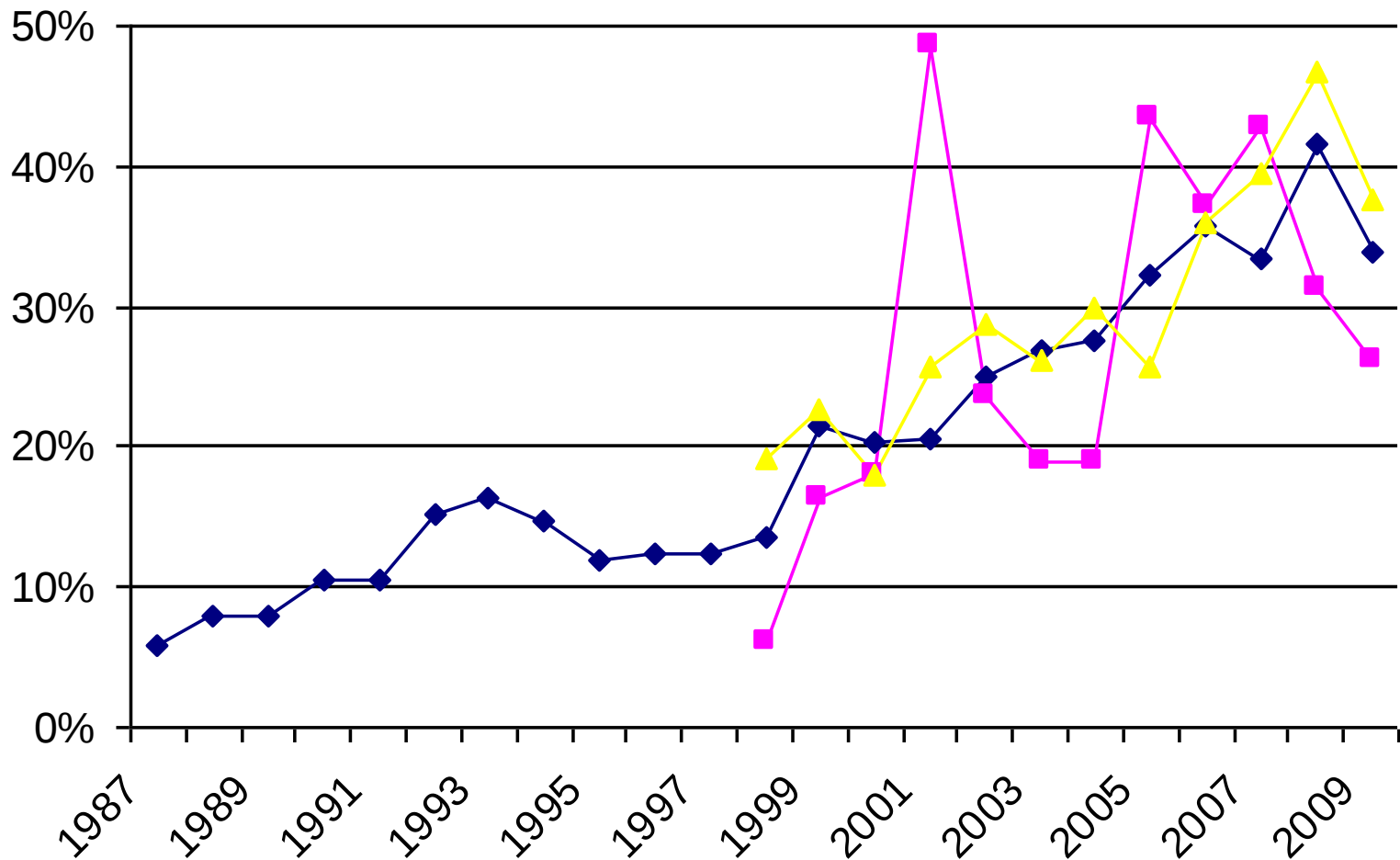
—◆— FAA —■— FAH —▲— FAW





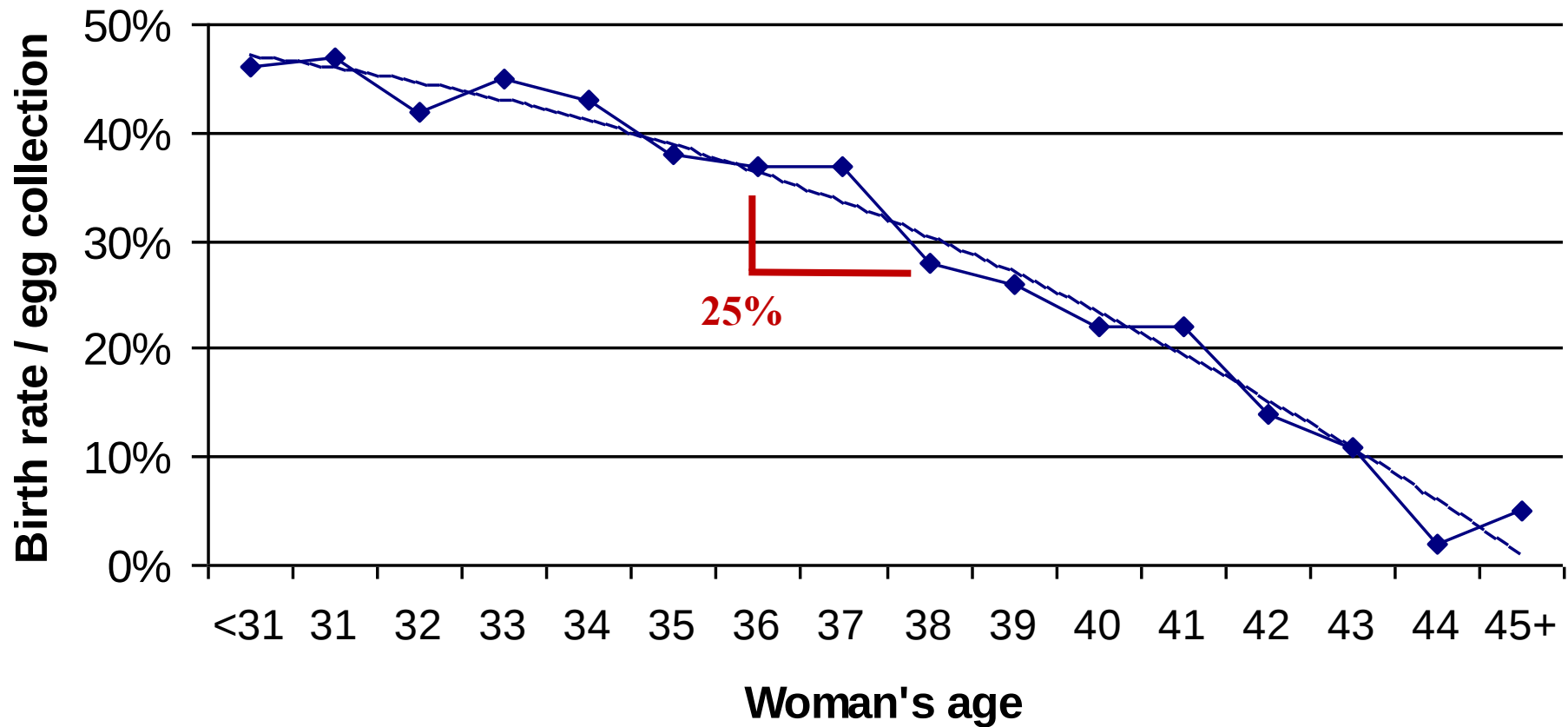
Women ≥ 40 on starting private IVF (incl DO)

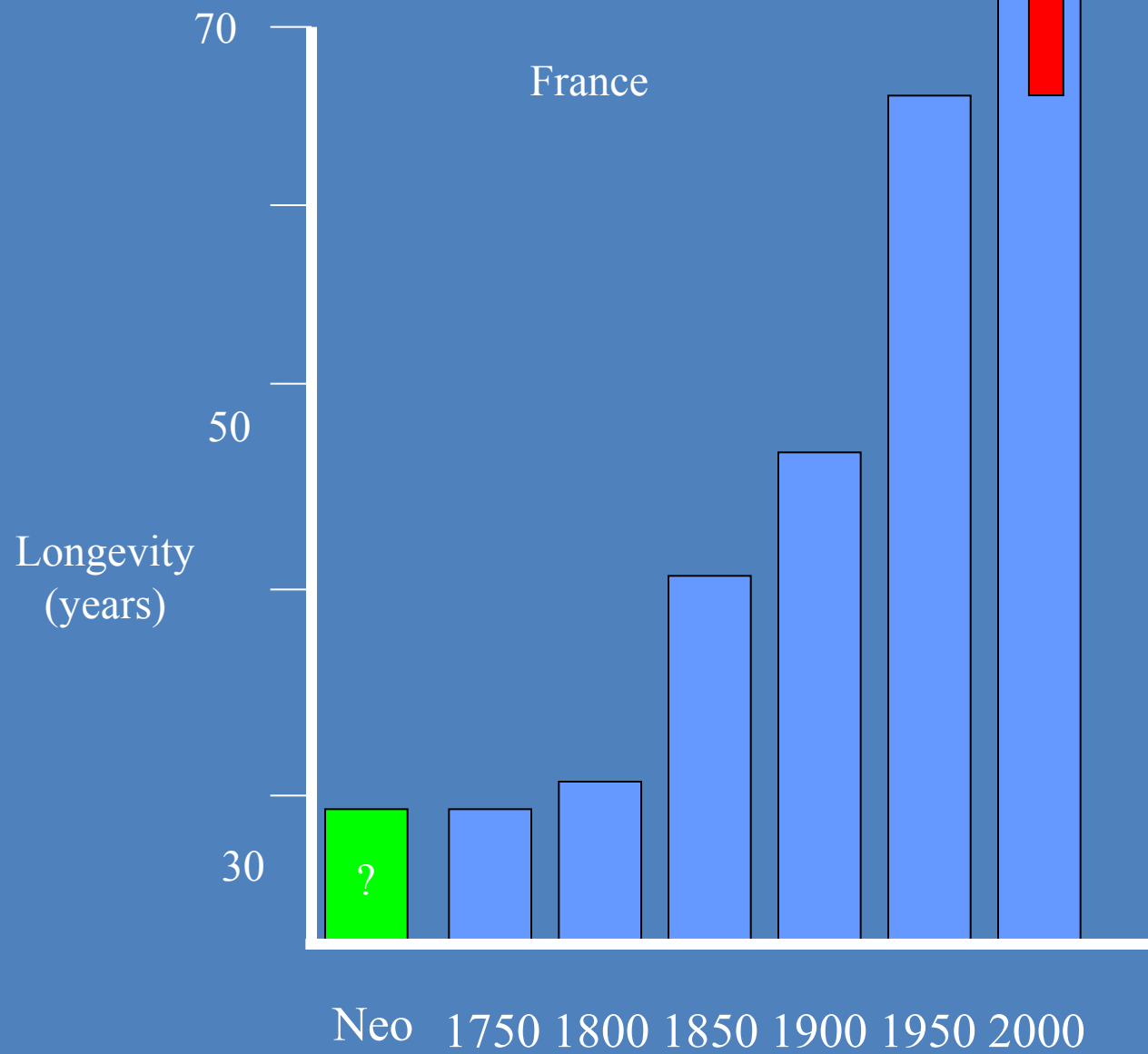
—◆— FAA —■— FAH —▲— FAW





Chance of baby, own eggs





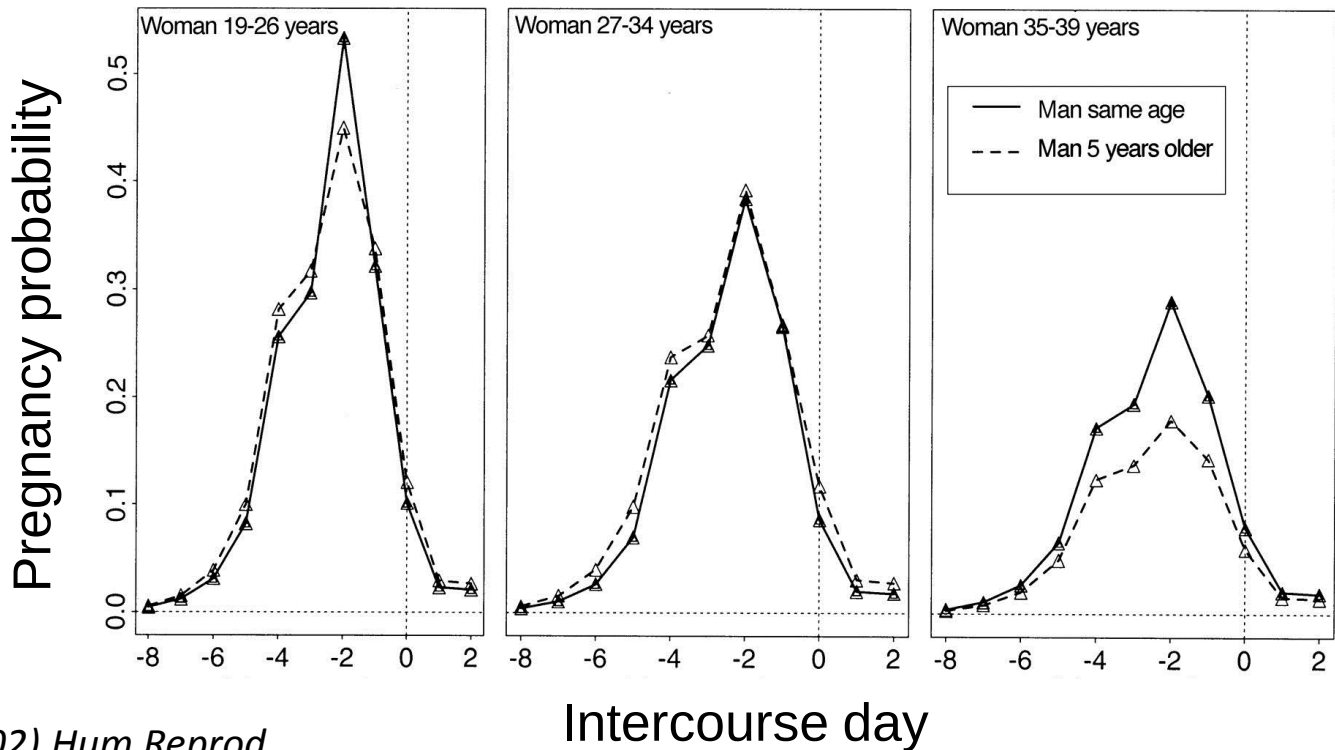
Fertility declines with age

Reproductive ageing

Woman's age (years): 19–26

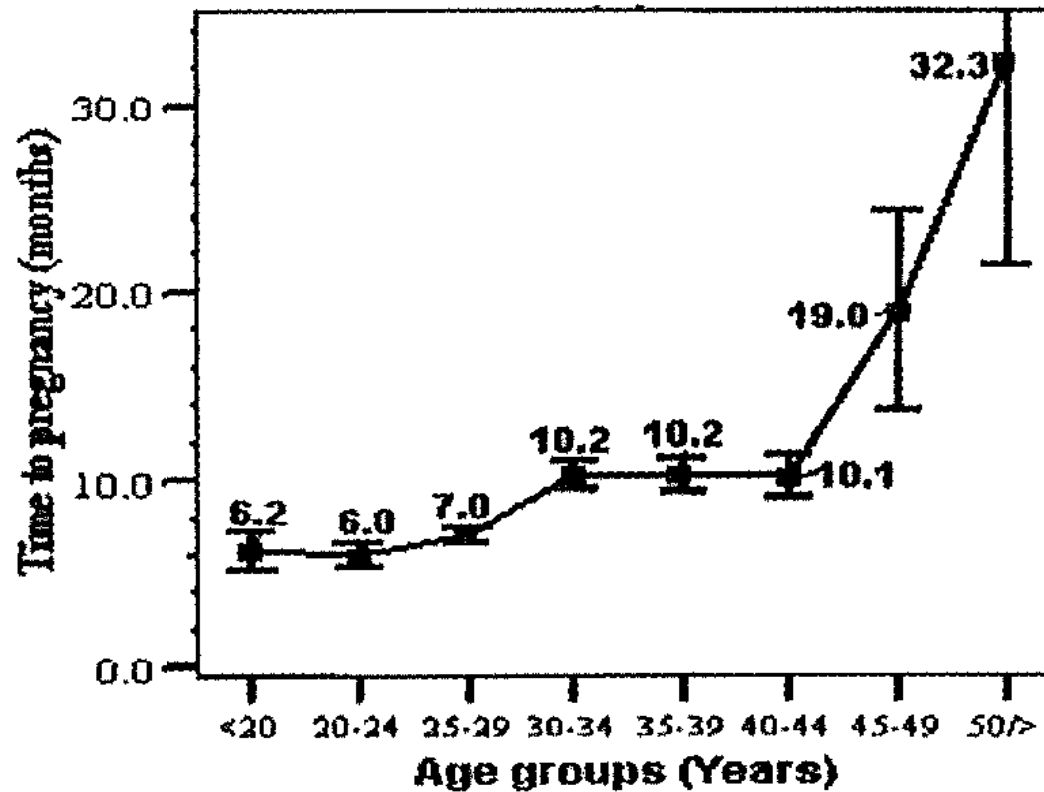
27–34

35–39



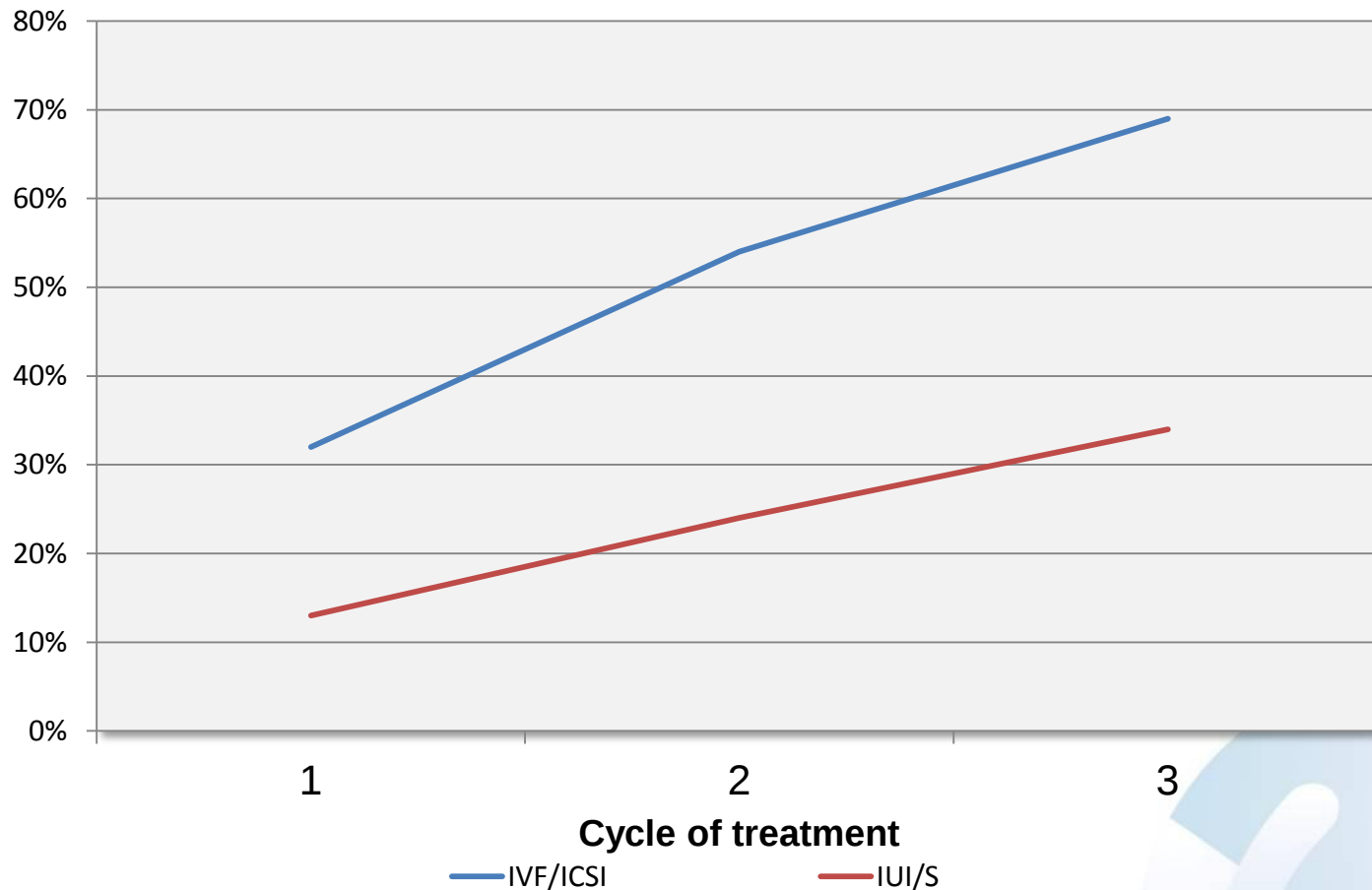


Paternal age effects on time to pregnancy



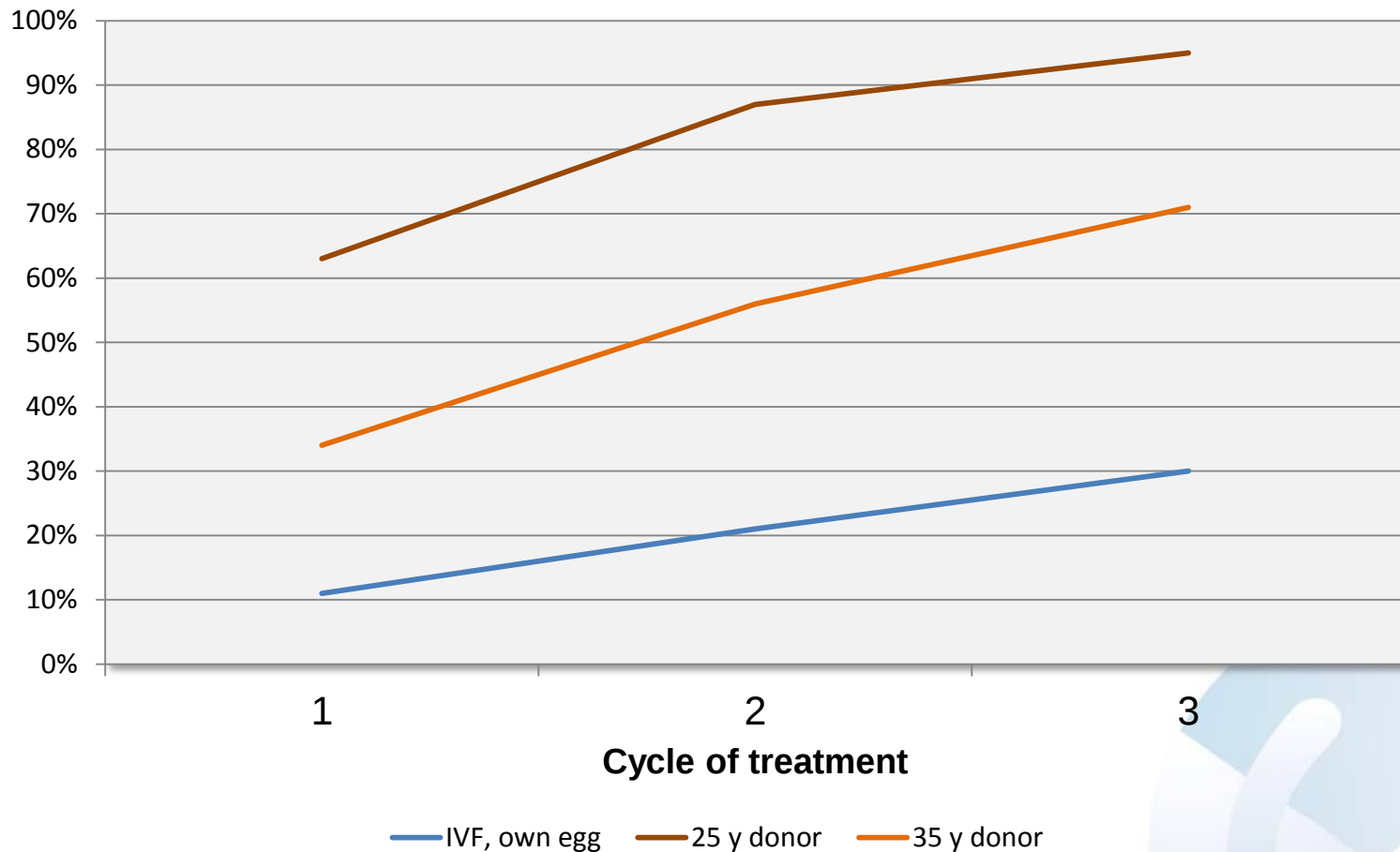


Estimate cumulative birth rate, women 37y





Estimate cumulative birth rate, women 42y using donor eggs

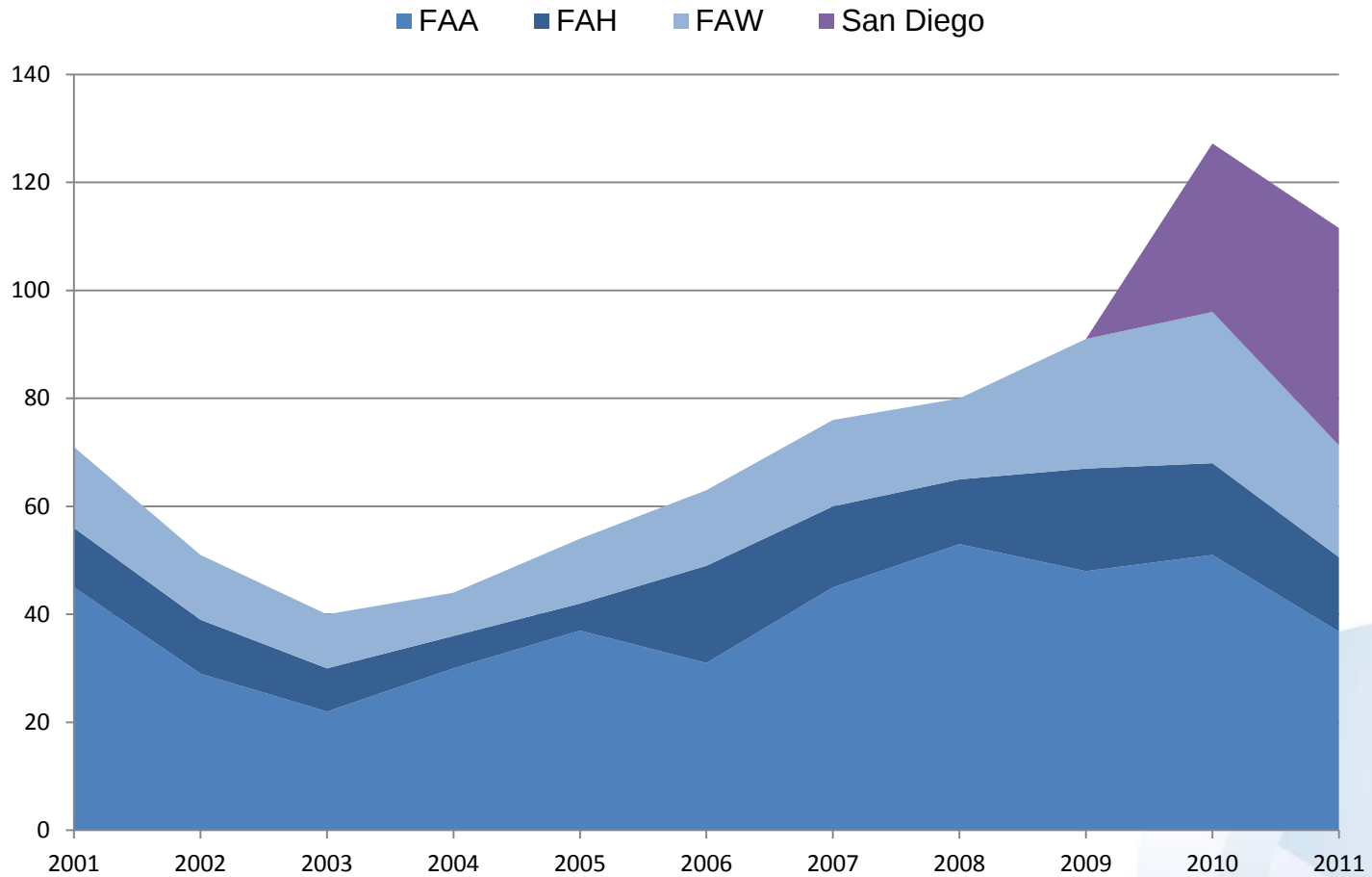




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Donor egg cycles



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Cross border reproductive care

Oct 2010 to Sept 2011 AUCKLAND

- 28 Patients to San Diego Fertility Clinic alone
- Average age of egg donors around 23
- Clinical pregnancy rate of around 65%
- Returned for thawed embryo replacement 6
- Transport of frozen embryos



Dilemmas

- Age
- Weight
- Marital status
- Cancer care
- Fertility preservation
- Cross border reproductive care
- Embryo disposal
- Embryo research

NZ Census 2006



9% more women
than men in
30 – 34 year
group

Indication for Donor Insemination at FA

Social indicators

Year	Proportion of cycles			
	Total	FAA	FAH	FAW
2002	40%	48%	29%	33%
2003	46%	44%	36%	51%
2004	45%	40%	33%	55%
2005	58%	54%	49%	65%
2006	51%	51%	31%	57%
2007	58%	59%	56%	57%
2008	59%	61%	40%	59%
2009	59%	61%	40%	62%
2010	55%	57%	38%	55%
2011 to date	62%	61%	50%	57%

Average age of women at the time of DI treatment

- Social causes 38.3
- Other causes 34.5

Families in NZ

- Couples with child(ren) 447,894
- One parent with child(ren) 193,635
- 30% of children are from one parent families



Statistic NZ 2006 Census

Oocyte freezing

- Prior to chemo/radiotherapy
- Religious reasons
- Legislative restriction
- Strategy for cumulative outcomes
- “Social”

Oocyte freezing

A. Cobo - Vitrification

- 486 cycles
- 2721 oocytes
- 84% survived thawing
- 128 deliveries, 29% / transfer

If >8 oocytes then pregnancy rate (46.4%)



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PGD

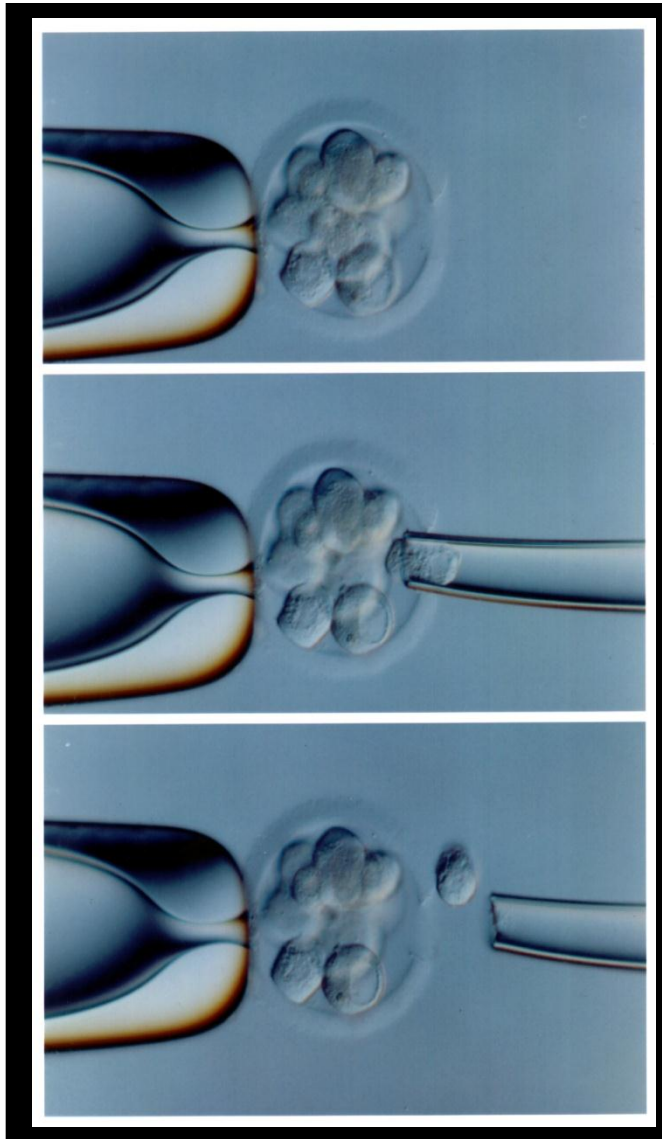
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Day 3 embryo (8 cells)



Hole in the zona
pellucida by non-
contact laser

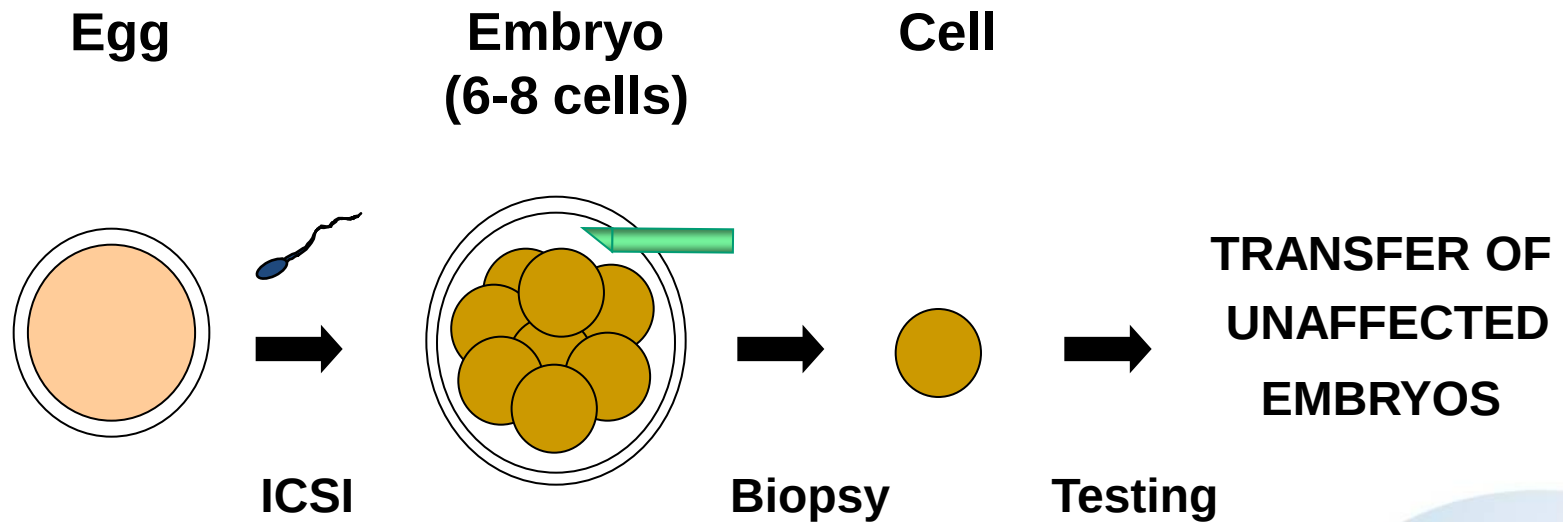
Insertion of glass
micropipette

Removal of a single
blastomere for genetic
analysis

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Principle of PGD





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